

Higher Education & Research

GAIN THE EDGE. DELIVER OUTSTANDING STUDENT EXPERIENCES



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Higher Education these days is all about flexibility and offering students the possibility to tailor their academic careers to their personal needs. Universities already embraced the digital age by adopting smart solutions to support and simplify processes for students, teachers, and staff, however, the corona pandemic accelerated this transition like never before. Add trends like hybrid learning, the combination of b2b and b2c scenarios, and international campuses to the mix, and you see why higher education needs to reinvent itself. Next-generation IT and integrated student lifecycle management help to offer an outstanding student experience, to attract talented students and teachers, to stay relevant in the academic field, and to become future proof. Are you ready to gain the edge in higher education?

Mark Arts, Business Unit Manager Higher Education & Research at NTT DATA Business Solutions Benelux.

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Executive summary: If you're short on time, this is what you need to know.

Nothing is certain except change. This also applies to higher education: The number and variety of competitors is rising fast, and recent studies show that students across all year groups, institutional types, and subjects have developed a challenging consumerist ethos towards universities. They want value for money and control over their study program, including the opportunity for a flexible path that suits their specific needs. Students are also demanding in terms of contact hours and available resources (certainly since remote learning has taken flight in times of COVID-19), learning spaces, and the educational community. On top of that, universities are faced with the trend of lifelong learning. It offers them an extra business model, but not every institution is (digitally) ready for the leap to b2b scenarios.

This whitepaper illustrates how a university (or any other higher education institution) can improve its digital platforms, attract a diverse and talented student population, gain all-important analytical insight, and at the same time futureproof its operating model for the digital age. **The key to climbing the rankings is a next-generation IT strategy that focuses on integrated student lifecycle management for the digitally empowered, consumerist student.**

The path to student success starts with a strong digital foundation. Integrated and innovative student lifecycle management will support all student-related administrative tasks and create outstanding student experiences that are as simple and convenient as online shopping. Easy-to-use analytics solutions enhance transparency, support decision-making for all parties involved in the student lifecycle, and reduce technology costs.

STAY RELEVANT IN A CHANGING WORLD

International student mobility and a growing consumerist attitude in students are intensifying the war for talent. For institutions, the number and variety of regional and global competitors is rising fast. With public funding of higher education under pressure, it is often the students that end up paying the price. Which makes them, rightly so, even more demanding in terms of the academic path they want to carve out for themselves.



To survive in this increasingly competitive environment, institutions must rethink their delivery models [...] so they can capitalize on change now rather than being consumed by it.

In the academic world, the focus on student satisfaction has become more prominent. It is essential to give students the right support from application to graduation, throughout all the processes that need to be performed and all the requirements that need to be fulfilled. And, to give them the freedom and flexibility to tailor their academic careers to their wants and needs.

To survive in this increasingly competitive environment, institutions must rethink their delivery models for teaching, learning, and, finally, administration, so they can capitalize on change now rather than being consumed by it.

However, the reality is different: Rising expectations and costs, declining affordability, online and for-profit competitors, the shift to lifelong learning, and other factors have created a growing sense of uncertainty among administrators, registrars, faculty, and staff. How can they prepare their institution for this new situation? What is the way to a successful future?

In this whitepaper, we'll walk you through the trends and challenges that are changing the status quo of the academic world, and we will offer you a clear and practical view on how to stay relevant as an institution in the future of higher education.

Mark Arts, Business Unit Manager Higher Education & Research at NTT DATA Business Solutions Benelux.

Challenges

- **Distance and online learning.** The biggest challenge? Making the forced and accelerated shift to online learning during the COVID-19 pandemic. It challenged institutions to quickly adapt their systems to offer the same quality of education and services in the pre-lockdown world. What we saw, was that universities with an already integrated student lifecycle system were one step ahead of others in the field. And managed to set up online environments and classrooms in a short amount of time, which helped them to maintain that coveted outstanding student experience. It's safe to say that online learning is here to stay. So, how are you integrating this in your study programs?
- **Mixed modes.** This second challenge comes forth out of the first one. A combination of traditional face-to-face learning and distance learning is the new normal. It asks a lot of flexibility from professors, students, and systems as well. Something that could be covered with digitization.
- **B2b and b2c scenarios.** Lifelong learning is another trend we saw coming the past few years. Following modules to stay up to date in your line of business or industry is not new, but it certainly is skyrocketing in this era. That poses challenges to universities and colleges: They need to develop a curriculum that easily fits into professionals' busy lives, and they need to adapt their current registration and enrollment modules for this type of student.
- **International campuses.** Especially in Asian and North-African countries, the demand for West-European higher education models is on the rise. For students that want to follow these study programs but are not in the position to travel or move, international campuses are a most welcome development. Several West-European universities and colleges have opened local institutions in other continents that deliver the same quality education. Of course, this too asks for a new way of thinking and working in higher education. Something that could be supported by innovative IT solutions.

Trends

1. Support the Complete Student Journey

A solid and flexible student information system (SIS) that revolves around both the value for administration staff and the experience of students has become a pre-requisite for successful management of any higher education institution. It should move beyond the traditional student records system, be efficient and reliable, and facilitate administrative processes at all levels from application through registration to graduation.

On the one hand, all data regarding the student must be recorded, standardized, and accessible for the administration staff. On the other hand, the system must support the students' growing information needs as well. All relevant information should be available through a portal or, preferably, a mobile solution as today's students want to be able to check all details using their smartphone or tablet. These details range from exam results and timetables to teachers' contact details and more.



When it comes to recruiting and retaining the students that best fit in with their missions and programs, higher education institutions are facing increasing competition. This means they have to deliver an exceptional student experience to make themselves stand out. Managing information and relationships across the entire student lifecycle from a holistic perspective is now a top priority. This also signifies that the boundaries between SIS, e-commerce, and CRM applications will blur.

To optimize and justify the quality of their academic choices, management needs to combine information from diverse systems to create a single source of the truth for reports on the strategic, tactical, and operational levels. Access to accurate, integrated data has become essential to achieving – or even exceeding – objectives.

2. Adapt to the Non-Traditional Student and Non-Traditional Forms of Education

Many people still picture the typical student as a young high school graduate in his or her early 20s who lives close to the university and whose schedule is determined by a mix of classes and other campus activities. Today, however, this example represents the minority in higher education.

The new normal is a student that tends to be older, has more work experience, and is more socioeconomically diverse. They are often working professionals that want to stay up to date with their line of business, expand their knowledge or move up the ladder by taking advanced modules. And they expect that their study program fits into their daily lives of work, childcare, and other obligations.

In addition, in times of massive open online modules (MOOCs), social media, and webinars, learning can happen in many ways. This questions the traditional degree path, forcing institutions to adapt to the changing demographics of the student population. To do that, they must offer a wider range of modules and greater flexibility for working or travelling students, for example through distance learning and online resources.



To stay relevant institutions must dedicate the same amount of energy and resources to non-traditional programs, including an institution-wide commitment to developing new academic programs and creating better administrative structures for non-traditional students.

Considering these statistics and developments, there can be little doubt that besides the traditional students, non-traditional (or lifelong learning) students have established themselves as an important and continuously growing market segment. Whether due to campus culture, limited resources, or an administration and faculty unwilling to modify their academic and administrative structure, many institutions are missing the chance to attract and educate this increasingly important segment of students.

To stay relevant and attractive, institutions must dedicate the same amount of energy and resources to non-traditional programs, including an institution-wide commitment to developing new academic programs and creating better administrative structures for non-traditional students.

3. Provide Student and Learning Analytics Everywhere

As mentioned above, institutions are looking for new ways to offer the perfect individual support to every single student at the right moment. One of the biggest challenges is that they are not entirely sure what kind of data is relevant to predict student success or to determine possible risk of failure. Therefore, in order to develop the right strategies for increasing student success and retention, they need to acquire a full and consistent understanding of the metrics involved.

Preconfigured tools and learning and student analytics can guide institutions quickly and easily to the desired metrics and up-to-date insights they need to improve collaboration and communication between faculties and every single student. In this way, they can really prove their support for students on their path to a degree.



Predictive analytics is a very powerful strategical tool for improving student success and saving money through improved retention, increasing the university's position in the rankings.

Learning analytics leverage student data to deliver personalized learning, enable adaptive methods of teaching, and identify issues before they can evolve into serious problems. Furthermore, analytics can deliver deeper insights into students' needs and behavior and enable universities to predict the probability of academic success. Administrations can then offer personalized, proactive engagement and counseling to students based on up-to-date facts and information.

Today, data warehouses and the cloud make it possible to collect, manage, maintain, and analyze vast numbers of records. They turn the mass of figures into meaningful patterns and actionable information for decision-making. Special predictive techniques allow faculty and staff to take action in order to support student success and retention before they are seriously at risk. That is why predictive analytics can become a very powerful strategic tool for improving student success and saving money through improved retention, thereby increasing the university's position in the rankings.

4. Improve Student Retention and Success

In order to attract new students and retain them, student success and engagement have become major priorities for many institutions. The increasing global competition for students, combined with government mandates for transparency and improved results, increase the pressure on universities. A strong focus on student success is all the more important given the fact that there is a general trend toward consumerization and personalization in our society. Students expect value for money and measurable return on their investment from higher education. Flexible and individualized mobile services on a 24/7 basis will become an absolute necessity for the future.

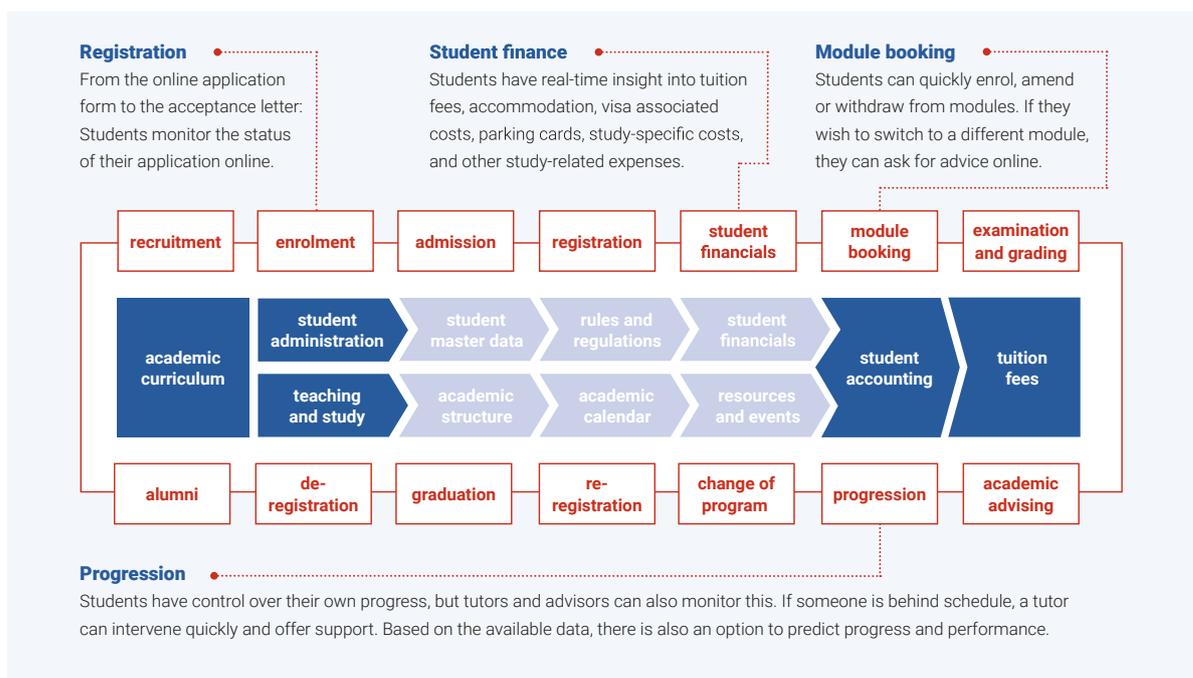
Yet a recent study by Ovum revealed that most institutions are still underprepared. They lack a comprehensive strategy to address their student performance and retention goals.



BECOMING A SMARTER UNIVERSITY

Step 1 – Integrate and Manage the Whole Student Lifecycle

There can be little doubt that student success and retention will continue to be two of the most challenging issues facing higher education. It is essential for the administration to give students the right support from enrolment to graduation: covering all the processes that need to be carried out and all requirements that need to be met. In helping to maintain a smooth flow of activity and to handle the number of tasks at once, it is essential to have the right tools. For example, with it.education, an industry-specific solution based on SAP Student Lifecycle Management, institutions can innovate and support all of their study-related processes – from online registration, schedules, and exam grades to self-service tools and apps for students and faculty members (see figure below).



With it.education, institutions can make significant progress on their way to increasing student success and student retention by:

- Creating an individualized learning experience
- Using data and models to predict student progress and performance
- Being able to directly act on up-to-date reports, insights, and information
- Gaining and providing real-time insight into student performances
- Using simplified, role-based applications that work on any device

A special practice-proven methodology helps organizations to implement SAP solutions for Higher Education & Research with maximum efficiency. It is based on wide experience in implementing student information systems and is already being used by many renowned universities worldwide. Examples include: Maastricht University, VU Amsterdam, KU Leuven, TU Berlin, Saxion University of Applied Sciences, La Trobe, KAUST, and De Montfort University.

The technological platform offers the simplification and innovations introduced in SAP S/4HANA, SAP's ERP suite that acts as the "digital core" of enterprises. This includes an advanced in-memory platform, a personalized user experience, embedded real-time analysis, and extensive finance and accounting capabilities. The solution can easily be incorporated into any existing university IT landscape. It can be run, managed, and maintained either as a multi-tenant or single tenant cloud solution. On-premise by an institution's IT department or managed externally, it.education offers a hassle-free solution hosted in one of NTT DATA Business Solutions' data centers or at any of the common hyperscalers.

Step 2 – Communicate from Prospect to Student to Alumni and Beyond

As people's private life and the economy rapidly become digitized, permanent change through technological innovation becomes the rule. Universities need to start transforming for the future now. Through this transformation, they can increase enrolment, enhance learning, and improve graduation rates. In an ideal scenario, student information systems facilitate communications well beyond the recruitment and enrolment cycles. The it.education solution supports the full 'student lifecycle journey', which means that the system facilitates communications and engagement with students from the prospect stage to alumnus.

This approach especially focuses on the fact that alumni relations are now an all-important part of an institution's ability to grow and advance. Alumni provide ideal role models for current students and can offer start-up support for student careers. They can also act as fundraising prospects, business incubators, professional/social networkers, and international ambassadors of inestimable value for their alma mater. Maintaining permanent communication with alumni means institutions can make them part of their future, not just their past.

Step 3 – Improve Student Engagement

The institutional focus on student engagement links closely to the overall student experience and short- and long-term outcomes, such as retention and module completion. While there is currently a drive to focus more strongly on data and metrics, there is also the need to listen to and understand students' needs relative to the institutional mission and offerings. It is likely that the answer lies somewhere between the two, in a balanced combination of both dimensions that drives both improved engagement and outcomes.

Of course, student engagement is strongly related to effective learning and in-depth learning. However, there is always a social component that needs to be and can be addressed. Modern administrative services based on it.education can create a sense of social belonging through personal support and interaction, for example between student advisors and students.

Step 4 – Focus on the User Experience

The it.education solution helps institutions to differentiate themselves immediately, but also allows them to transform and optimize processes later. It is a highly flexible solution that supports organizations in adapting to any situation or challenge. Differentiating the student experience across the entire student lifecycle has to involve a far greater number of stakeholders than stand-alone processes for admissions and alumni affairs. So how can they be integrated without extensive training and extra costs?



The SAP Fiori user interface that comes with it.education provides the answer. Based on modern design principles it provides a unique, role-based experience across all lines of higher education institutions, tasks, and devices. It works seamlessly on desktop, tablet, and smartphone. Based on an attractive and intuitive user experience for all people concerned, institutions can easily involve more stakeholders on a regular basis. Faculty members, teachers, finance experts, counselors and, above all, students easily find all information and capabilities clearly visualized on a dashboard, helping them to communicate and collaborate successfully along the entire student lifecycle.

Step 5 – Get Analytical

When it comes to student analytics, an institution's primary aim is to generate robust, evidence-based analysis and evaluation about the most effective practices that ensure high retention and completion rates.

One of the biggest challenges institutions are facing is that they are not entirely sure what data to look at. To predict the likelihood of student success or risk of failure, administrators and

faculty have to collaborate closely and define how success can be measured in concrete terms. An effective way to do this is to set objectives based on the SMART criteria (specific, measurable, achievable, realistic, and timely).

Industry-specific solutions, such as it.education, support institutions in establishing powerful student analytics. They provide cost-effective and reliable methods and tools that enable faculties to:

- Collect and analyze student data
- Handle complex data consolidation tasks arising from disparate systems
- Visualize and interpret data accurately within seconds
- Determine and take appropriate individual actions based on sound information

Step 6 – Harness the Power of Predictive Analytics

The stakes are higher than ever for academic institutions to prove they can help their students succeed on their path to a degree. That is why a growing number of campuses implement early warning systems that alert students when they are at risk of poor results.

Many universities have realized that software for predictive analytics is a very powerful strategic means to boost student success and save money through improved retention. Predictive analytics involves extracting an analytical model from multiple sources of data to predict future behavior or results of student activities. Finally, big data, which has been available for a long time on campuses, can now be used to signal the need for intervention and support immediate action whenever a student is at risk of losing focus or needs personal advice.

It is worth bearing in mind that, while the majority of the higher education analytics tools currently on the market claim to use predictive analytics, there are only few tools that can actually live up to the promise.





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Digital transformation helps organizations reach their full potential –if the underlying technologies work for the people using them! At NTT DATA Business Solutions, we design, implement, manage and continuously enhance SAP solutions to make them work for organizations –and for their people.

Aiming to transform, grow and become more successful? We provide you with more than in-depth expertise for SAP solutions: As your passionate partner, we connect your business opportunities with the latest technologies –and offer you a unique approach to get the job done as smoothly as possible.

Our close ties to SAP and other partners give you access to innovative solutions and developments. Being part of the global NTT DATA group enables us to master any scope of project.

With operations in more than 30 countries, we have enabled thousands of companies and organizations to become more efficient and effective during the last three decades. Our 10,000 experts around the world will also accompany you on your journey toward a truly intelligent enterprise –wherever you want to start!

Curious how we help your organization to overcome challenges, adapt to the new normal and stay ahead?

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