The future of engagement?
Why utilising identity management allows you to work smarter, not harder.

A myday White Paper

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Introduction

In a newly updated report The Future of Identity and Access Management -- Forrester Research points out the vital importance of putting the customer first:

“Great customer experiences lead to higher revenue growth for your company. To consistently deliver great customer experiences, you must be customer-obsessed. To be customer-obsessed, you must think and operate differently, prioritising investments in business technology, that is, the technology, systems, and processes that help win, serve, and retain customers. IAM is one of those business technologies, having evolved from a collection of purely security-focused technologies into an essential one that helps you understand and engage with customers along every step of their journey.”

Customer expectations for a seamless, personalised omnichannel experience continue to rise, as well as students in their academic worlds are no different. Student engagement has long been reviewed, documented and discussed and as the reliance on technologies increases, we look deeper into how you can benefit from utilising identity management.
What is Identity management?

In the traditional lecture hall, a student’s identity is almost completely bound up physically, kinaesthetically, and linguistically with the individual as he or she enters the room. Within a modern-day digital campus, many more identity factors can be created and the possibilities for personalising and targeting are opened up to improve the experience and engagement of both students and staff.

The purpose of identity management is to give the right people access to the right information, whilst making sure that those who don’t need that content aren’t receiving it or have access to it.

Delivering an optimal student and alumni experience is now a priority for higher education institutions. "As technology and cloud resources continue to play a growing role on college campuses, there is an increasing amount of pressure to include a personalised digital environment in addition to on-campus experience." Clark, T & Arnold, B (2019)

Material targeted to a specific audience, skill set, or age group or person allows an institution to give their students and staff the best experience possible, with an online campus tailored specifically to their needs and interests. To accommodate this, identity management needs to include a host of additional attributes above those historically deemed important.
Six benefits of implementing IM at your institution

1. Ensures Correct Access from Day One
With modern IAM solutions, account provisioning can be automated to ensure day-one access for students, faculty, staff, and external users. Throughout a user's time at the university and beyond, any changes, additional access requests, and de-provisioning needs can automatically be made to the user's account and any downstream systems. “This eliminates the risk of human error or delays that prevent students from getting timely and correct access to every account and resource they need.” Garska, K. (2019) Day one access gives students immediate access to critical campus learning resources (e.g. LMS) from the first day of class. The interactive digital content of this nature increases student engagement and improves student success.

2. Provides Self-Service Capabilities
Self-service capabilities allow end-users to manage their accounts. Rather than working through the help desk, students and faculty can quickly resolve issues, such as password resets themselves, which eliminates delays and dramatically decreases the drain on IT resources.
There are many benefits of self-service in addition to reducing overhead costs. A self-service portal is always there, 24/7, there is no waiting for a service desk to pick up the phone meaning there’s less frustration and more time to be productive. And, if they need to, end users can easily track progress.

3. Enables Single Sign-On
Enabling single sign-on means students only need to remember a single set of login credentials for one-click access to everything they need. This not only expedites access to resources but also minimizes password-related issues, since users don’t have to remember and manually enter numerous sets of details. Engagement is enhanced due to the efficiency and ease of logging on and IT departments benefit from the elimination of internal help desk costs helping locked out users.

4. Manages Users with Multiple Affiliations (Roles)
Keith Hazelton from the University of Wisconsin carried out extensive research into IM as a functional model, an extract from his findings are as follows.

In higher education, users often have multiple affiliations or roles (for example, students who are also staffed with on-campus jobs, doctoral candidates who are also faculty members and teach classes, and graduate students who are undergraduate alumni). While this is common, many IAM solutions treat multiple ID numbers assigned to a single user as separate users, resulting in students having to remember two or more credentials and juggling separate accounts in downstream applications such as email.

However, this doesn’t have to be the case; some modern IAM solutions can use multi-attribute matching and validation to identify matching attributes (birthday, email address, home address, etc.) enabling multiple IDs to be affiliated to one user. Then, matching accounts can either be merged automatically or flagged to your IT team for review.
This simplifies and streamlines content for students while cutting down on the likelihood of login issues and provisioning errors. Hazelton, Keith (2005)

5. Automates Ad Hoc Access Requests for Visitors

External students, staff and visitors are a regular occurrence for colleges and universities. Typically, accounts and IDs for them must be created in an ad hoc fashion and is often done manually by IT. These requests are often last-minute and require immediate attention.

A best-of-breed IAM solution can automate user account creation through policy-driven workflows, regardless of what kind of account is required. An easy-to-configure workflow engine turns ad hoc access requests into light work—higher education institutions can effortlessly manage non-traditional user access, administer approvals for digital and physical resources, provide time-controlled access certification, and delegate approvals to individual function owners.

6. Protects Student Data Privacy

Students entrust the colleges and universities they attend with large amounts of PII, financial, medical, and other sensitive data. However, higher education institutions remain especially vulnerable to hackers because of a lack of allocated security funds and limited IT staff resources. As a result, student data is being targeted and sold on the dark web at startling rates.

“Having an IAM solution in place can close gaps in security and ensure that unauthorised personnel cannot access sensitive systems and data.” Bruhn, Mark S (2004). Layering access to these sensitive systems with robust multifactor authentication dramatically increases security across the organisation and ensures access is still protected, even if user login credentials fall into the wrong hands. Plus, the college or university can utilise authentication methods that leverage students’ existing smartphones and risk-based authentication that only requires additional authentication if a specific risk threshold is hit to increase security without impacting usability.

Also, from a security perspective, just because SSO can grant users automatic access to all applications does not mean it has to. More advanced IAM systems, most commonly using Security Assertion Mark-up Language (SAML) 2.0 can use SSO with additional levels of security. IAM systems can authenticate and authorise users based on the access level indicated in their directory profiles.
Identity management has developed very quickly over a short amount of time, becoming an integral part of student and institution-wide data, having a direct impact on the engagement and retention of students, as well as streamlining the utilisation of systems. There are many new technologies and advances which both rely on and can be improved through identity management but one of the largest topics with the greatest scope is AI and machine learning. Vendors argue IAM is becoming increasingly complicated as more authentication factors are used, and AI and machine learning algorithms can collect and analyse those factors much faster than human InfoSEC professionals.

Universities and colleges need to adopt practices to ‘see-through’ the incredible amount of identity data that is circulating their systems, and identity analytics are at the heart of this practice. At the core of identity, analytics is a set of machine learning and artificial intelligence technologies.

Artificial intelligence (AI) has been disrupting industries of all kinds, and education is no exception. When it comes to identifying attacks and breaches, a large part of the challenge is to quickly identify what events matter. IT and security professionals can struggle to make sound decisions without the full context, which is difficult to obtain amidst a sea of data and alerts.

Furthermore, the ability to crunch data and accelerate productivity through powerful data analysis and machine learning optimises identity governance processes. Learning from both data and human interactions, AI can solve some of the most common challenges that identity programmes face.

AI can make identity-aware infrastructures smarter, more intelligent, and more responsive, providing higher-quality decision making within security programmes. Machine learning technology provides the analytical power and insight needed to effectively sort through all the ‘identity noise’ to find those anomalies that really matter. This way, instead of working harder, businesses can begin to work smarter.

An identity management programme powered by AI can identify and contextualise behaviour, enhancing efficiency and productivity. Visibility is key in any identity governance program, but the ability to turn that visibility into insights about high-risk users, access, and behaviours is even more important. These insights allow institutes to focus controls on the riskiest and most likely scenarios to be abused by external attackers or rogue insiders.

This real-time analysis of what is happening in the environment gives institutes the foresight needed to protect themselves and have a greater perspective on risk. Identity analytics is the logical and critical next step in the evolution of identity management.

Real-time analysis has more benefits than just security aspects. Understanding how your students are utilising your digital campus allows you to optimise positioning, content and communications to assist each individual in their own academic journey.
Heriot-Watt University, an insight into IAM and student personalisation - Case Study.

Heriot-Watt is a global university and was named by The Times and The Sunday Times Good University Guide as International University of the Year 2018. The University has been using the myday digital platform since 2017 and Robbie Ferguson, a Business Analyst at the University, explains how they personalise their student experience using identity management.

"At Heriot-Watt, there are five different campuses over three different time zones. The feedback we often receive from students at all campuses has taught us that personalisation of news is hugely important – or to put it negatively, students and staff do not like to receive news that does not relate to them. Information about car parking closures in Dubai, or strike action in Edinburgh or building closures in Malaysia only have a local impact rather than a global one."

Additionally, the needs of our undergraduate, postgraduate, and distance learning students are very different – some access very different services, and all of them interact with the University in very different ways – distance learning students, for instance, make more use of our online services.

We also have 5 schools at the university, each with very different subjects, that like to offer personalised output about guest lecturers, internship opportunities and research news.
Subsequently, our highest priority with myday was making sure that we could target groups of students to provide them with an experience that looks as tailored to them and the type of student they are as possible. On the legacy myday platform, this meant creating 4 different dashboards, divided initially by Level, and then using the Campus or School AD groups to differentiate content. But with the Identity Management app on the new myday platform, we've been able to condense this to one dashboard, and then create Dynamic groups to capture the differences in audiences that we want to target.

This has allowed us to manage the creation of these groups within myday and create specific subsets, so long as they are part of one of our core groups. So, if we wanted to produce a tile that was only for undergraduate students in our School of Social Sciences in Dubai in their first year, we now can.

The ultimate goal of this engagement would be to drill further down into the data and start targeting content by the programme, or course, or gender, or year of study, to make sure we were producing content that was relevant for the user.
Conclusion

The future of student engagement rests on universities and colleges meeting the core needs of students at their campus. Those needs are required to be met at a much more personal level than ever before and the reliance on digital technologies is increasing.

Utilising all aspects of identity management enables you to meet those needs and allows you to work smarter, not harder.

References

2. Clark, Tammy & Arnold, B (2019). Improving the Student Technology Experience: MyUTampa. The University of Tampa