



Building a better
working world

Robotic process
automation (RPA) for
colleges and universities

What is RPA?

Robotic process automation (RPA) is a software solution that is customized to perform repetitive, computer-based tasks by interacting with the user interface of existing technology within an organization.

RPA operates like a virtual employee, reliably performing high-volume tasks and processes unattended, resulting in a range of efficiency and quality improvements over existing, more human-centric solutions.

Characteristics of tasks best suited for RPA

Typically approximately 60% of an organization's process activities can be addressed by RPA. These include:

- ▶ High-volume processes
- ▶ Repetitive tasks
- ▶ Digital processes
- ▶ Tasks with multiple steps
- ▶ Tasks that require humans to interact between multiple digital interfaces (e.g., ERP software, email)
- ▶ Processes that offer high-value potential from automation (e.g., service improvement, accuracy, efficiency)

Modernizing university operations through RPA

In an increasingly competitive higher-education environment – driven by flat enrollment in the US, changing student demographics and pressure to innovate on academics and student experience – both public and private higher-education institutions (HEIs) are seeing expenses grow faster than revenue. At the same time student and parent expectations for “service quality” continue to rise. These cost pressures and increased service expectations are encouraging HEIs to look to technology solutions for cost savings, efficiency gains and improved service delivery. As in many other sectors, robotic process automation is increasingly being leveraged in higher education. Universities are implementing RPA for a range of internal processes, allowing them to develop more modern, sophisticated administrative operations while avoiding the disruptive and costly process of implementing a new core system.

RPA's benefits

- ▶ Improved student and staff experience
- ▶ Error reduction
- ▶ Reduction in labor hours
- ▶ Cost savings
- ▶ Improved job quality for faculty and staff
- ▶ Avoiding enterprise software implementation cost

RPA on campus: automation across the student value chain

In the higher-education context, RPA saw initial uptake to support institutions with managing back-office functions, similar to its uses in other industries; however, use cases are increasingly student-facing. Institutions that successfully used RPA to improve one or two processes in a single back-office function have identified and implemented uses in other functional areas. Universities are increasingly identifying use cases for RPA in functions such as course scheduling, where it improves the user experience for students, reduces human error and creates time-saving efficiencies in the registrar and student-advising offices.

Range of university functions



	Back office	Hybrid	Student-facing
Description	For university back-office functions, RPA implementations can mirror the use cases in the private sector; these automations help improve the core business operations (IT, finance, HR) of the institution.	RPA implementations that are not directly student-facing, but target student-facing functions, allow employees to spend more time interacting directly with students and handling special cases.	These RPA implementations directly interact with data that is inputted or used by students; today the most common student-facing use cases for RPA are in the admissions office.
University functions	<ul style="list-style-type: none"> ▶ Financial reporting ▶ Human resources ▶ Payroll ▶ Accounts payable/receivable ▶ Information technology 	<ul style="list-style-type: none"> ▶ Admissions ▶ Grants administration ▶ Financial aid ▶ Research support ▶ Student services 	<ul style="list-style-type: none"> ▶ Admissions ▶ Course/exam scheduling ▶ Facilities usage ▶ Registrar ▶ Student services ▶ Career services
Examples of automation	<ul style="list-style-type: none"> ▶ Remove up to 85% of manual hours from employee onboarding ▶ Process purchase-order invoices ▶ Review to identify expired employee credit card accounts ▶ Reconcile employee IDs across multiple HR systems 	<ul style="list-style-type: none"> ▶ Create tagged records in the student portal for communication from student services ▶ Reconcile student coursework with graduation requirements to generate report to be used by staff 	<ul style="list-style-type: none"> ▶ Support 250% increase in application volume with admission process robots ▶ Automate room-booking and approval process for student meetings and events

Note: Bolded functions are currently the most common uses of RPA in higher education context.

Case study: RPA at a leading Australian university

Our EY colleagues in Australia worked with a leading Australian university to implement RPA to improve service quality across the institution. The goal: university leadership sought to improve the student experience while increasing efficiency. As part of the effort, university leadership set up an innovation unit within the Finance office and had the EY team work with Campus Infrastructure, Finance, Human Resources, Research and Student Administration to identify and implement automations that could enable university employees to spend their time on higher value-added activities, with the goal of improving service quality and increasing customer satisfaction.

The joint client-EY team has team identified more than 100 potential automations and worked with functional leaders across the institution to prioritize those with the most promising cost-benefit trade-offs. See the box below. Within six months, the combined team was able to develop and implement 33 automations, which spanned allocations across the spectrum of back-office hybrid, and fully student-facing functions. The university is now scaling and augmenting RPA automations with machine learning.

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What makes the automation team’s achievements so compelling is the university’s commitment to improving service delivery to students and employees alike. This focus has supported rapid adoption of automation across a range of key processes throughout the university. We believe service delivery improvement and augmenting staff capabilities need to be key objectives to maximize the enterprise value possible from intelligent automation.

Ean Evans, EY Oceania Intelligent Automation Lead Partner, whose team supported the university in cognitive RPA deployment

The university saw tremendous benefit from its RPA implementation.

One example of the benefits:

<p>Document uploads in the admissions office</p>	<p>Automating student document uploads improved processing time by one and half times, completely eliminated manual processes and reduced process touch points from 40 to 1, saving the university 1,330 hours of manual effort per year, and more important, improving service time and reducing errors.</p>	<p>250%</p>	<p>Capacity for increased applications with no additional resources</p>
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Case study: a large public US higher-education and health care system

Curious about the potential benefits of RPA across the system, a large forward-thinking state system with 10-plus institutions enlisted our EY team to develop a set of RPA test pilots with the potential for system-wide impact. After an initial list of pilots, largely focused on back-office functions, the system saw promise in three of them.

- ▶ **Cash control reconciliation:** The largest health care institution implemented a cash-control reconciliation automation, reducing monthly manual processing hours from 100 hours to 2 hours.
- ▶ **HR position reconciliation:** The same institution implemented an automation to reconcile HR position numbers between two human resources systems, reducing monthly manual processing hours from 25 hours to 5 hours.
- ▶ **Department reconciliation – review and validate:** A health care institution implemented an automation to reconcile department revenue, payroll, budget, and journal entries, reducing monthly manual hours from 960 hours to 309 hours. A portion of this process was able to be replicated at another institution, saving 100 hours of monthly manual effort.

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Leading practices for institutions looking to implement RPA

An increasing number of domestic and international institutions are now considering RPA as a key part of their service quality and efficiency improvement “toolkit.” These institutions are learning from early implementations, allowing them to more effectively implement new RPA automations. There are a few early lessons from RPA innovators in higher education.

- ▶ **Work cross-functionally with support from the top:** in order to get the most out of RPA, an HEI should start with a cross-functional team – this will allow the HEI to identify projects where RPA will have the most value and will also help adoption. It is important that this cross-functional effort is supported by leadership at the top. Strong leadership vision is required to ensure that implementation is smooth and that released capacity is used to further improve the HEI’s value proposition to its constituents.
- ▶ **Early wins are essential:** as HEIs decide on which RPA projects to tackle first, they should start simple but be high-value projects that can be implemented quickly so that employees can see the results and potential of RPA. The first handful of proof-of-concept projects are essential and allow teams to brainstorm further about how RPA can help their work.
- ▶ **Ask if improvement is needed prior to automation:** it is worth thinking about whether to improve processes before implementing RPA, but it is important that process improvements are enacted swiftly. RPA can be a great catalyst for process improvement, but trying to create the perfect process before implementing RPA can hold up project timelines and reduce the impact of RPA.

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