Automation for Educational Institutions: Preparing for a Technology-Enabled Future

SyncApps
by Cazoomi

Executive Summary

Automation is slowly becoming part of our daily interactions and everyday tasks. Sometimes we don't even realize how mundane it has become. You make an online payment and receive an automated message. You place an order – you receive another automated message. You schedule tasks – you guessed it, another automated message.

Automation is transforming various industries including corporates, retail, and manufacturing. It's leading to many opportunities and adversely affecting those who fail to adapt to it.

According to a study by Accenture, [1] companies will dominate their industries and increase growth if they embrace automation. It helps industries drive changes to their service delivery, products, business models and more. Industries will evolve as automation will lead to increased agility, reduced time spent on complex operations and systems, and the ability to experiment and try out new services and products.

With all these benefits of automation, the education industry is yet to automate their processes fully. They are still grappling with online education, leading them to some daunting challenges.

---

[1] https://www.accenture.com/fr-fr/_acnmedia/PDF-11/Accenture-Intelligent-Automation-Technology-Vision-2016-france.pdf , retrieved April 2019

Most universities are trying to keep up with their competition. But the reality is that they should be keeping up with students' demands. Students are clearly demanding automated processes and seamless communication across channels. Online and hybrid learning is offering students fewer classroom hours and institutions that fail to keep up will fail and close up shop.[2]

This white paper takes an in-depth look at the challenges universities and other educational institutions face and reveals the best strategies for them to keep up with student and market demands.

---

[2] https://www.insidehighered.com/digital-learning/article/2017/04/28/clay-christensen-sticks-predictions-massive-college-closures?xid=PS_smithsonian, retrieved April 2019

CAZOOMI™

Table of Contents

1. What Is Automation?

Automation is the *automated* execution of tasks without periodic interference. It simplifies complicated tasks and completes repetitive and mundane tasks resulting in better outcomes.

For example, sending a simple command can set in motion a chain of actions or events aimed at achieving a certain specified objective. Automation frees human resources for more engaging tasks, which leads to improved job satisfaction and increased efficiency. In education, automation minimizes manual effort leading to better efficiency.

2. Automation and Educational Institutions

Educational institutions have come a long way in the adoption of technology. From the computerization of library operations to transitioning from print to electronic and finally the adoption of networking technologies.

Gone are the days when institutions managed operations through batch data uploads. When they took applications offline for updates of daily transactions at night. When paper-based forms required multiple handwritten approvals and signatures. And when students could not access web-based self-service tools after school hours.

Today, software applications have access and can update databases in real time. Applications send information to each other in response to triggers or due to other related events. Communication is seamless and continuous through web services, integration platforms,[4] etc.

Ways Educational Institutions Are Using Automation

Automated processes in the education industry free up time for educators to spend with the students. Students

---

[3] https://blogs.gartner.com/rene-buest/2019/02/18/tech-ceos-must-selectively-use-intelligent-automation-to-improve-operational-excellence-of-their-infrastructure-operations/ retrieved April 2019

[4] https://www.cazoomi.com/integrates-industries/education/ Retrieved April 2019

CAZOOMI™

can also use automation to optimize their focus and time to accomplish their goals.

a.   Automation to Attract and Enroll New Students

Most students apply to more than one institution when looking to join higher education. They expect that the admission process will be seamless. That it will be easy with constant communication with providers before they finally decide on a course to specialize.

The generations joining higher institutions now have been brought up on technology. These are the Generation X and Millennials (to a lesser degree). They expect the institution to be available online and provide constant feedback both on the website and on social media sites. They are also generations that trust in their peers and will believe what online reviews say.
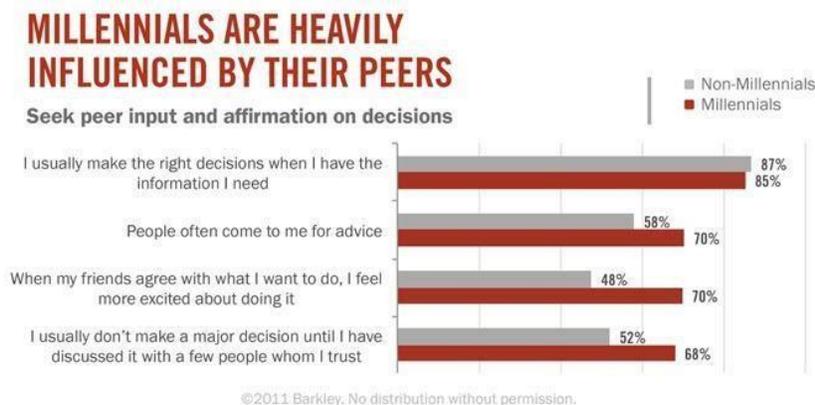

MILLENNIALS ARE HEAVILY INFLUENCED BY THEIR PEERS

Seek peer input and affirmation on decisions

■ Non-Millennials
■ Millennials

	Non-Millennials	Millennials
I usually make the right decisions when I have the information I need	87%	85%
People often come to me for advice	58%	70%
When my friends agree with what I want to do, I feel more excited about doing it	48%	70%
I usually don't make a major decision until I have discussed it with a few people whom I trust	52%	68%

©2011 Barkley. No distribution without permission.

Today's university staff are looking to attract new students, identify leads and nurture them until they become enrolled students. In order to do all this, you must deliver the right message at the right time, a process achievable through marketing automation. 70% of those who use marketing automation, claim improved target marketing is one of the important benefits of using it. [6]

Most marketing departments in educational institutions deal with repetitive tasks including handling social media, emails, making calls, etc. Marketing automation helps automate these actions. It makes these small tasks manageable and efficient.

According to research, 37% of email marketing and marketing automation users believe it gives them better insight into leads. 30% claim it increases engagement while 24% believe it tells more about the target audience. [7]

[5] https://www.wordstream.com/blog/ws/2016/09/28/generational-marketing-tactics, retrieved April 2019

[6] https://www.emailmonday.com/marketing-automation-statistics-overview/, retrieved April 2019

[7] https://www.emailmonday.com/marketing-automation-statistics-overview/, retrieved April 2019.

CAZOOMI™

In your opinion, what are the main benefits of marketing automation?

Improved targeting of messages	68,5 %
Improved customer experience	45,9 %
Better quality of leads	37,7 %
Getting more leads	34,9%
Improved efficiency / ROI in marketing	32,9 %
Higher conversion	30,1 %
Closer cooperation between marketing and sales	29,5 %
Cost efficiency	27,4 %
Ability to combine data from different channels	26,0 %
Increased web traffic	23,3 %
Better profit	13,0 %
Shortened sales cycles	3,4 %

The benefits and Challenges of marketing automation - liana technologies (2017)
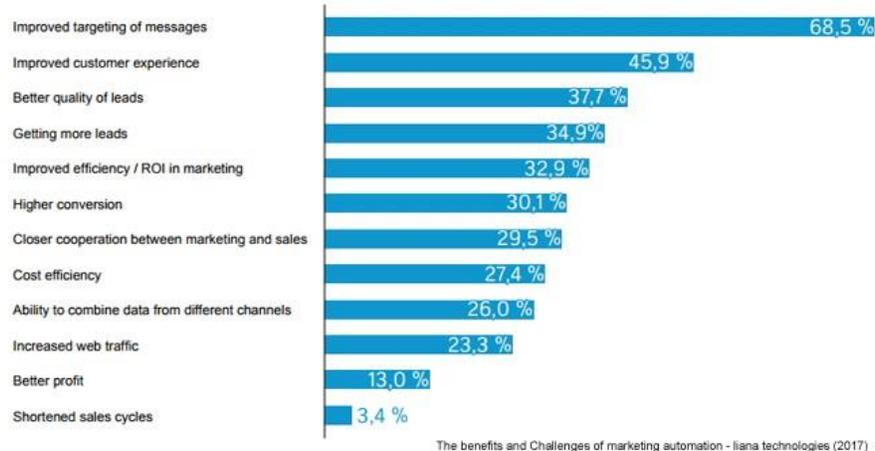
Image Source: Email Monday[8]

Nurturing students towards joining your educational institution can be tedious. The students expect you to follow them up as they go through the different stages of the buying process. The more they move through the funnel, the more questions they need answered.

---

[8] https://www.emailmonday.com/marketing-automation-statistics-overview/, retrieved April 2019

Image Source: HubSpot[9]

There are various marketing automation platforms including InfusionSoft, Constant Contact, iContact Pro, HubSpot, and others. [10] These platforms allow you to come up with streamlined and personalized campaigns aimed at improving conversion rates.

Marketing automation platforms go hand in hand with a good customer relationship management (CRM)[11] system. A CRM platform allows you, as an educational manager, to manage workflows better and follow up processes for a streamlined lead management system. Combine the two, and the integration becomes something that yields even more spectacular results. The marketing automation platform will allow your school to integrate marketing

[9] https://blog.hubspot.com/sales/what-is-the-buyers-journey, retrieved April 2019
[10] https://www.cazoomi.com/search/, retrieved April 2019
[11] https://www.cazoomi.com/search/?from_home=yes&app_plan_vertical_drop=CRM, retrieved April 2019

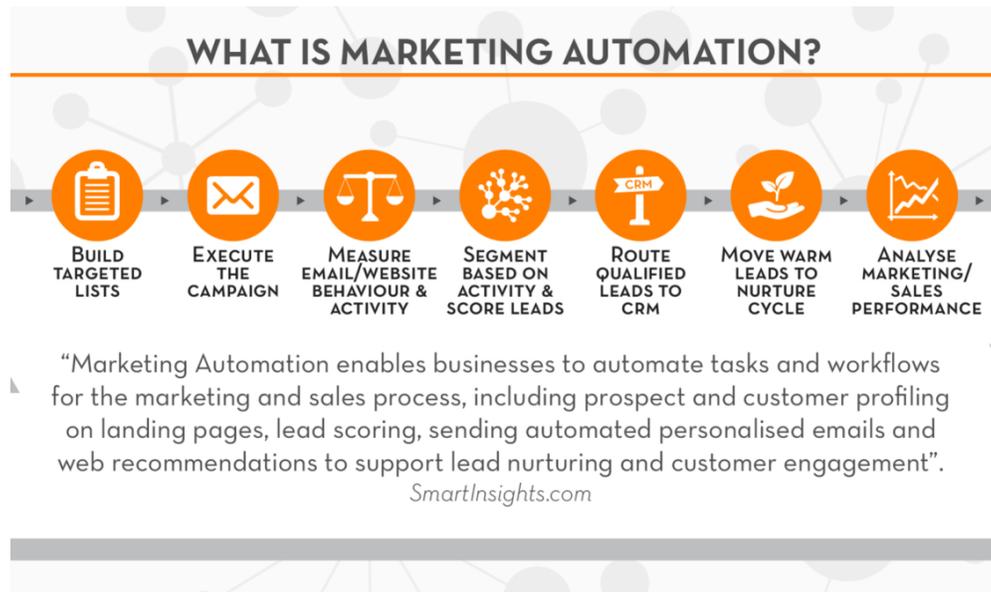events triggered throughout different stages of the CRM workflow processes.

Image Source: Smart Insights[12]

Students will fill in a form online either to ask questions, or to receive email updates and newsletters. As soon as the prospective student hits send on the inquiry form they receive an autoresponder email.

---

[12] https://www.smartinsights.com/, retrieved April 2019

	22: Initial Email Read	Stage changed	November 26, 2018 6:01 pm
	Lead Assignment / Business English auto-Reply	Campaign action triggered	November 26, 2018 11:47 am
	If Program Is Business English / Business English auto-Reply	Campaign action triggered	November 26, 2018 11:47 am
	Professional Business English AutoReply / Business English auto-Reply	Campaign action triggered	November 26, 2018 11:47 am
	69.70.48.254	Accessed from IP	November 26, 2018 11:44 am
	Contact identified	Contact identified	November 26, 2018 11:44 am
	Contact created	Contact created	November 26, 2018 11:44 am
	Inquiry Submission	Form submitted	November 26, 2018 11:44 am

Image Source: Higher Education Marketing[13]

With these insights, you can tell when the lead opened the email. It will also help you segment students depending on their interests so that your messages target their needs and preferences.

Even more, automation can help you with lead scoring. Lead scoring can help you evaluate the quality of leads you attract.

You can also measure progress as the potential student moves through the enrollment journey. A marketing automation platform will allow you to assign scores to behaviors and activities. They will then update automatically when the prospective student completes a certain action like downloading your newsletter. Assigning scores will help your marketing team know what

---

[13] https://www.higher-education-marketing.com/blog/beginners-guide-marketing-automation-education, retrieved April 2019

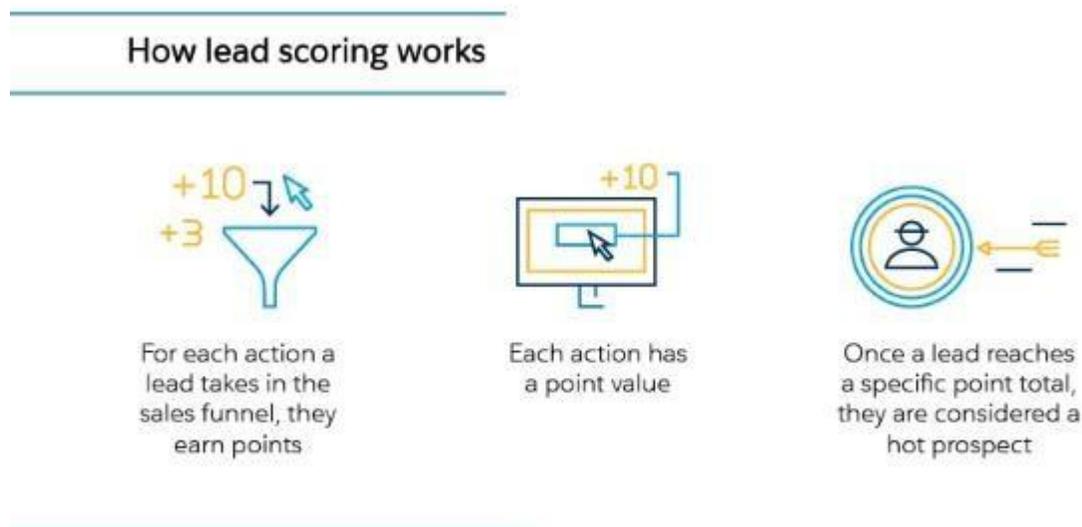prospective students to prioritize and contact them at the right time on the right channel.

How lead scoring works

+10
+3
For each action a lead takes in the sales funnel, they earn points

+10
Each action has a point value

Once a lead reaches a specific point total, they are considered a hot prospect

Image Source: Salesforce[14]

Actions that determine lead scores include:

- What pages the student viewed (with the pricing page having a high value)
- What they searched for -- determines interests and priorities
- What they downloaded -- indicates the buying stage
- Landing pages they visited, products they engaged with
- Did they click on custom links? It can indicate where they are in the buying journey.
- Videos can also show where they are in the buying journey and indicate topics of interest.

---

[14] https://www.salesforce.com/products/marketing-cloud/best-practices/basic-science-behind-lead-scoring/#, retrieved April 2019

CAZOOMI™

With automation, you can create a series of emails targeted at different students based on what they searched for, their concerns and interest. The lead then receives the emails targeting these interests and concerns via the marketing automation platforms. Action by the lead triggers the sending of the message which is meant to urge them to take the next step.
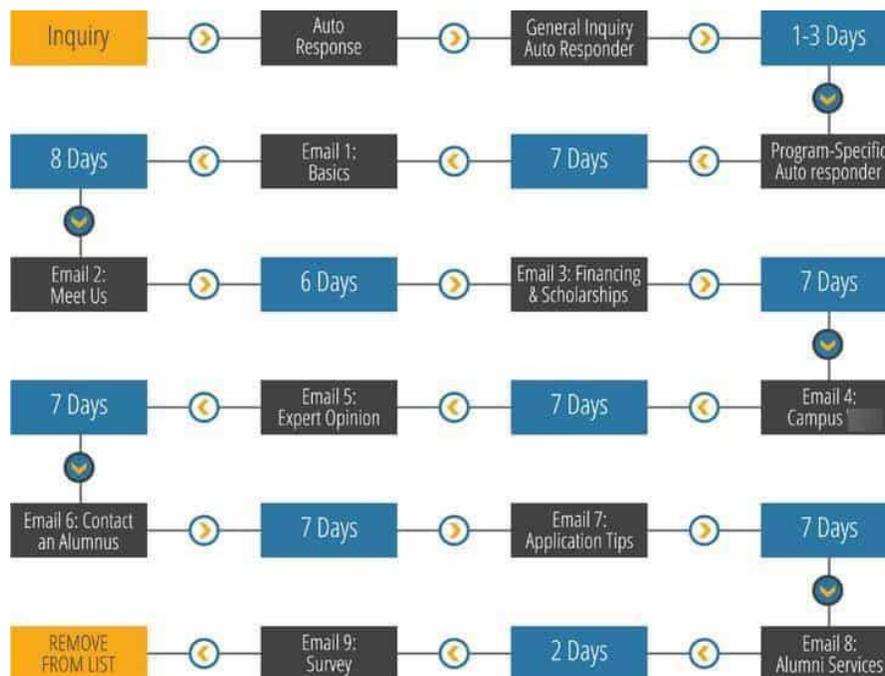

Image Source: Higher Education Marketing [15]

Most marketing automation tools have social media management and monitoring tools, too. You can use them to create posts for your social media accounts or schedule them to post later. They allow you to tailor content to each specific social media platform so that your pages continuously engage with students. You can respond to

---

[15] https://www.higher-education-marketing.com/blog/beginners-guide-marketing-automation-education, retrieved April 2019

their queries promptly and respond to comments as soon as they are sent. In some cases, the automation tool will help you track mentions of your institution on social media.

To continue nurturing leads towards enrolling for programs in your institutions, offer other services like:

- **Virtual visits**

Virtual visits[16] ideal for students who are not available for the college tour. And with universities looking to enroll more and more foreign students, virtual visit capacities are something that should be on every educational institution website.

Post a virtual tour of your school on your website and allow the prospective student to explore what the school has to offer. Make it interactive so that the student remains engaged. It's advisable to have the virtual tour done by a current student so that the potential student can relate to them.

The virtual reality tours help students not only see the institution but experience what it would be like to be part of it.

---

[16] https://www.youvisit.com/collegesearch, retrieved April 2019

CAZOOMI

- **Live Chat**

Having a live chat option on the website makes it easier for potential students to get answers about the courses they need to register for via chat.

Research shows that 37% of consumers expect to get responses in less than 30 minutes from brands[17]. That goes for universities, too! So a flawless online presence is no longer optional.

How long do you expect to wait for a response from the brand to your social media question or complaint?
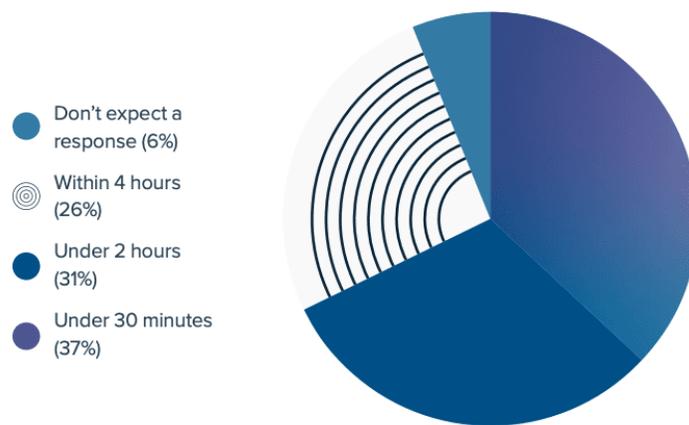
- Don't expect a response (6%)
- Within 4 hours (26%)
- Under 2 hours (31%)
- Under 30 minutes (37%)

Image Source: Smart Insights[18]

---

[17] https://www.smartinsights.com/customer-relationship-management/customer-service-and-support/customers-expect-brand-responses-social-within-30-minutes/, retrieved April 2019

[18] https://www.smartinsights.com/customer-relationship-management/customer-service-and-support/customers-expect-brand-responses-social-within-30-minutes/, retrieved April 2019

What does this mean for the educational industry? It means having robust customer care that meets potential students' expectations.

Connectivity has greatly changed consumer expectations. They want service delivery in their terms including how brands reply to them. After not getting the reply they need, the student will move to another school offering the same courses as you do, but with a more active online presence.

32%
stop doing business with a brand they love after only one bad experience[9]

57%
have stopped buying from a company because one of their competitors provided a better experience[1]

64%
are more likely to recommend a brand to others if it offers a simpler experience and communications[3]

KEY TAKEAWAY
Every experience counts, and you need to act quickly to remedy poor experiences. It's important to consider both the short-term and long-term impacts of great (or poor) CX.

Image Source: Iperceptions[19]

---

[19] https://www.iperceptions.com/blog/customer-experience-statistics retrieved April 2019

b. Automation to Save Time

Automating tasks will give your teachers enough time to spend with the students. The students can also use automation to save on time and work to accomplish their goals. Some of the tasks you can save time on using automation include:

- **Administrative tasks**

These include tasks like evaluating essays and grading homework. You can automate these processes through artificial intelligence. Create an automated grading process consisting of multiple-choice tests, flashcards, and practice tests.

This allows the teacher to spend more time with each student. Other platforms allow lecturers to design a digital curriculum they send to student across devices including audio, online assistant and video. Digital lectures and virtual content have also become a reality.

CAZOOMI

- **Autoresponders for lecturers to respond to numerous emails**

A professor will receive numerous emails throughout the school year and even during the holidays. It may be hard to determine which emails are urgent and which ones are not. An auto-reply will provide emergency contacts in case of an emergency.

An autoresponder also helps them respond to basic questions like office hours or meeting hours.

As for students, they can use auto-replies to provide alternative contact whenever they are not available. According to research, 71% of users mainly use automation platforms for autoresponders. [20]
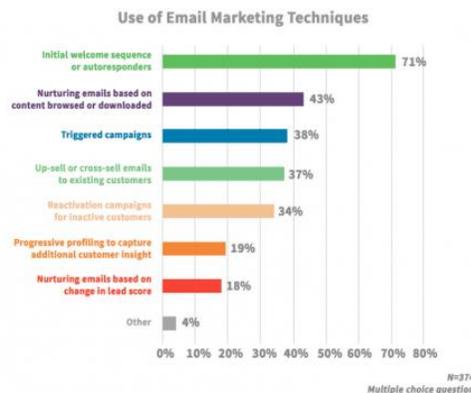

Image Source: Smart Insights[21]

[20] https://www.smartinsights.com/lead-generation/marketing-automation/marketing-automation-systems-expensive-arent-using-full-functionality/, retrieved April 2019
[21] https://www.smartinsights.com/lead-generation/marketing-automation/marketing-automation-systems-expensive-arent-using-full-functionality/, retrieved April 2019

- **Scheduling meetings**

Automation makes meeting scheduling easy and saves a lot of time. The lecturer can involve those attending the meeting in the schedule.

Some scheduling platforms will help you find a good place for the meeting to take place based on availability. Meeting scheduling software can also help admissions conduct interviews for new students. The students can also book their convenient time for the interview.

c.   Automation to streamline educational processes

A lot of the educational process relies on forms. Automation can help you cut back on paper usage. It also allows you to send the forms without mistakes or misunderstandings. These processes include:

- **Admission applications**

Electronic admission applications ensure that pages do not go missing, that the handwriting is legible and that the form has no food stains. The applications are also sent directly to the right person.

- **Course registration**

Manual course registration is a hassle. Overbooking is a frequent concern for universities, especially when it comes

to their star professors and courses. Automation makes registration simple for the student. They can tell which class is full and at what time they can enroll for the course again.

- **Records on attendance**

The advantage of having automated electronic records is that they are automatically updated and time stamped. You can tell students attendance rates and follow up to help them or find out why they are missing classes and what they can do to make up for the ones they lost.

- **Grade changes**

Until recently, an instructor had to get various signatures on a paper card before delivering it to the registrar's office. The employee working in that office would then input the grade change manually into the system.

Today, with automation, the instructor uses the university portal to initiate the grade change. The change is then routed electronically to offices supposed to sign, and when the dean has finally signed off, the grade change reflects in the system, and everyone involved is informed electronically.

The automation process helps save time and reduce errors. It also leaves an audit trail from the initiation of the grade change to the approval.

CAZOOMI

- **Human resources management**

When the school expands, either through additional students, or though hiring new faculty members or other workers, the HR department must draw up wages and tax forms for the new employees.

This can be quite time consuming, especially at the beginning of each school year. Instead, HR can use electronic forms that are easily accessible. The new employees can then input their information automatically and save everyone a lot of time and manual work.

- **Improved student-staff interaction**

With automation, students can have meaningful interactions with lecturers and professors. Automation frees time for the lecturers and makes them more productive.

Students can receive feedback on assignments, exams, and projects more accurately and quickly. This more readily accessible human interaction between the lecturers and their students helps them gain knowledge, necessary skills and insights.

CAZOOMI

2.   Preparing Educational Institutions for a Technology-Enabled Future

For automation to work, a collaborative culture must be adopted. The education sector must be open to change and realize that even with few resources operations can be turned into smart processes.

Automation is a powerful tool that helps institutions run well. It reduces overheads and allows for the redirection of resources to the institution's core mission. But in order for any of this to happen, the culture shift must happen first.

Jobs universities trained graduates for in the past are now automated. Some are completely gone. Industries are integrating artificial intelligence into basic functions. According to a report by McKinsey, it's possible to automate 45% of jobs and about 60% of occupations will see the automation of more than 30% of their core activities.[22]

Online education is one of the disruptive challenges colleges and universities must consider. There is a growing lack of student demand that is leading to university and

---

[22] https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/where-machines-could-replace-humans-and-where-they-cant-yet, retrieved April 2019

college closures. [23]Universities are at risk of closure since students can now access classes through the internet.[24]

Research by Babson Survey Research group on distance education found that more and more students are enrolling for online education. Compared to 2012, more than a million additional students took online courses in 2016. These were students who exclusively took online courses and those who took both online and on-campus courses.

STUDENTS TAKING DISTANCE COURSES BY LEVEL - 2012-2016

Year	Graduate	Undergraduate
2012	865,912	4,559,494
2013	905,274	4,706,277
2014	961,741	4,833,989
2015	1,022,993	4,999,112
2016	1,105,124	5,253,997

Image Source: Online Learning Survey[25]

Most universities are responding to this demand by partnering with online teaching companies or building their

---

[23] https://www.indiatoday.in/education-today/news/story/800-engineering-colleges-to-shut-down-aicte-1037426-2017-09-04, retrieved April 2019
[24] https://www.insidehighered.com/digital-learning/article/2017/04/28/clay-christensen-sticks-predictions-massive-college-closures, retrieved April 2019
[25] http://onlinelearningsurvey.com/reports/gradeincrease.pdf Retrieved April 2019

CAZOOMI

remote learning programs. In the future, institutions that have adopted online learning will have transformed the market.

They will be offering students omnichannel learning pathways, virtual counselors, cognitive courseware, AI-enabled grading and course development. These innovations will give students access to highly innovative learning services that maximize their learning objectives.

Students will access their courses and resume online courses from any device and location. They will also have access to sophisticated interactive experiences that help students learn through doing and decision making.

Another area that will see changes in the education sector is routine skills teaching, both cognitive and physical. Automation is replacing workers in factories at a high rate. There is an elimination of high skilled jobs by artificial intelligence in offices, too.[26]

What does this mean for higher education?

Briefly put, it means that they have to prepare their students for the new highly-skilled jobs of the future. AI will not steal all jobs. It's not an apocalypse. It's just another industrial revolution.

---

[26] https://techcrunch.com/2017/03/26/technology-is-killing-jobs-and-only-technology-can-save-them/?xid=PS_smithsonian Retrieved April 2019

CAZOOMI

Students see higher education as an investment in their future. And rightfully so. In other for this investment to yield the expected ROI, universities must show that they themselves are aligned with the "brave, new world".

The rise in automation adoption means that institutions must start focusing on transferable humanity skills. The students are required to work through problems using machines and therefore need the technical expertise. But having a science background will not be enough. In research on what skills make one most employable, social, analytical and management skills turned out to be most valuable.
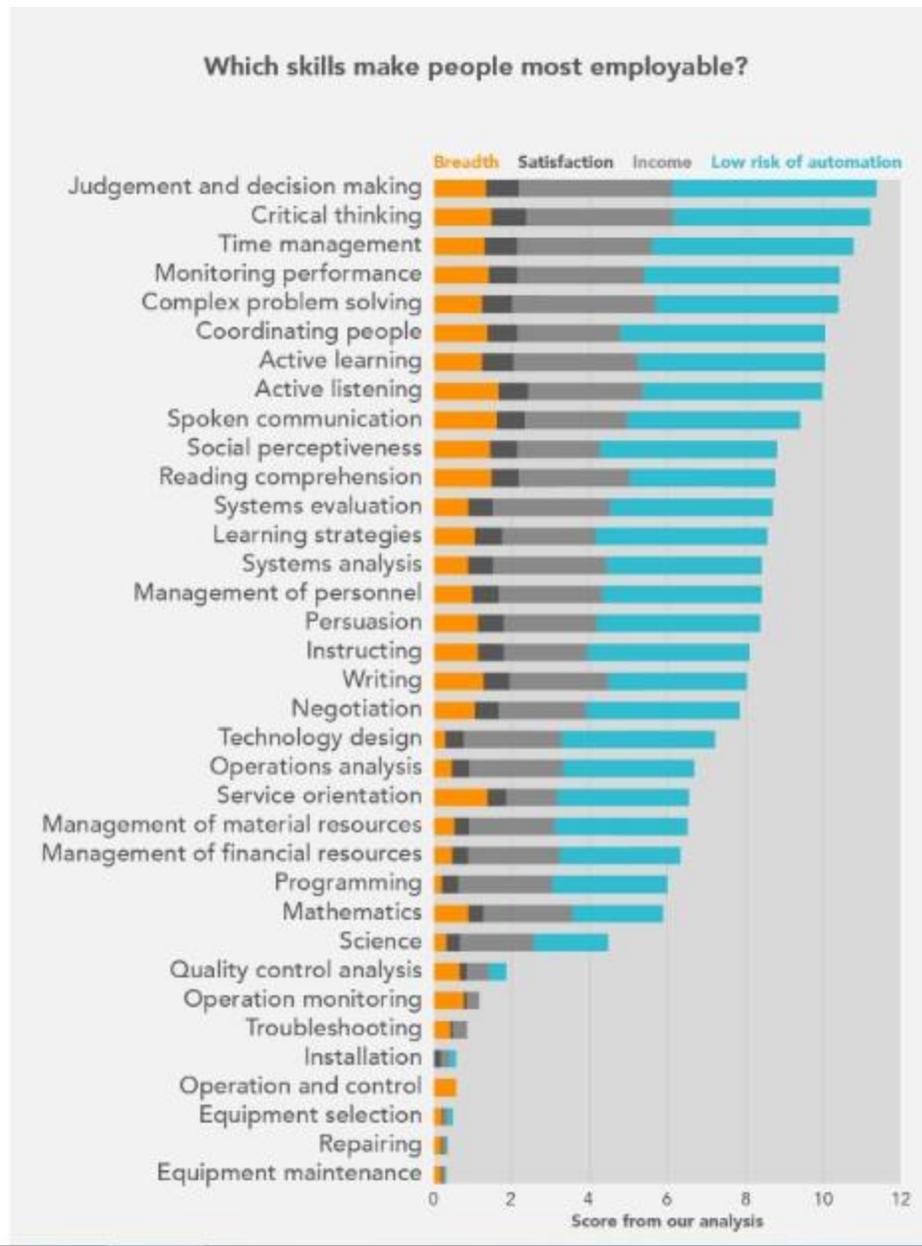
Which skills make people most employable?

Score from our analysis. Categories: Breadth, Satisfaction, Income, Low risk of automation.

Skills (top to bottom): Judgement and decision making, Critical thinking, Time management, Monitoring performance, Complex problem solving, Coordinating people, Active learning, Active listening, Spoken communication, Social perceptiveness, Reading comprehension, Systems evaluation, Learning strategies, Systems analysis, Management of personnel, Persuasion, Instructing, Writing, Negotiation, Technology design, Operations analysis, Service orientation, Management of material resources, Management of financial resources, Programming, Mathematics, Science, Quality control analysis, Operation monitoring, Troubleshooting, Installation, Operation and control, Equipment selection, Repairing, Equipment maintenance.

Image Source: 80,000 Hours[27]

Automation is also causing reliability that is robbing people of the ability to perform high-level tasks without help. For example, an overreliance on GPS means that people never actually know how to find their destination without it. This

---

[27] https://80000hours.org/articles/skills-most-employable/ Retrieved April 2019

reality is true even in other work activities. It's therefore critical for institutions to prepare students by instilling basic skills. It means helping students stand out in a pool of potential employees with the same educational background.

And, more often than not, this means offering them easy access to wide array of course options and activities.

3. Conclusion

To prepare students for a technology-enabled future, educational institutions, policy makers, and education stakeholders must come up with ways to prepare them for jobs that are still in the discovery pipeline. The ability to prepare students for these jobs will require a different look into teaching methods and the ability to give equal chances to all students.

It also means doing away with the one-size-fits-all teaching method. Look into individual students and what they want to achieve.

Otherwise, automation may end up bringing a divide between people who compliment the high-end technology with necessary skills and those who are stuck competing for the few jobs that remain.

CAZOOMI

The most successful institutions will have developed an innovative ecosystem that offers students a vast selection of digitally sophisticated courses that are at par with the ever-changing world.

About Cazoomi

Cazoomi allows marketers in educational institutions to integrate critical everyday business data through our SyncApps integration platform. Integrate eCommerce, CRM,Marketing Automation, Financials, and Support software to the software you use today. We offer more than 150+ integrations and help you set up, explore your options, and guide you through usage.

SyncApps by Cazoomi enables marketers in educational institutions to deploy software as a service for their Financials, handle eCommerce, Support, CRM, and Marketing integration with ease and at a price point built for any organization.

For more information, visit https://www.cazoomi.com/