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Digital transformation in education: Major obstacles and solutions

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Abstract
Digitization has changed our education system. Digitization of education in the 21st century has benefit that it is combined with the aspects classroom learning and online learning methods. Digitization in education has also proved to be the correct method for saving resources. Online examination podiums have restricted the playful usage of paper, directly confining the cutting down of plants. This way the digitization of education in present century proves to be a boon to our civilization. Stakeholders in educational institutions understand that new, visual tools are available that address many of the challenges/obstacles such as Skills Gap, Strategy, compatibility, mobility, skills and cost. Digital transformation for operational excellence has now moved to the top of their information technology (IT) initiatives rather than just being something to think about in the future.

Keywords: Digital transformation, education

Introduction
Need of digital transformation
Gone are the days when students sit in the classroom and learn solely by listening to lectures. Today, education must be cooperative and interactive. Teachers are making drastic changes to the way they approach instruction, with technology in the classroom playing a major role. Digital transformation positively impacts student learning by opening a world of endless possibilities and collaboration. Security of institute, Information, Student success, IT strategy, Data enablement, Student centric services, Affordability and Digital integration are important factors in running an organization.

Major Obstacles in Digital Transformation
To understand how a full and sustainable digital transformation can take place, it's important to examine the potential challenges an organization face. It is possible by understanding such issues it to overcome them.

- **Reluctance to adapt**
At present more than fifty percentages of those operating in the public sector feel their digital capabilities drop back the private sector. Despite this, many decision-makers are unwilling to take those next all-important steps towards digital maturity. Mostly, people do not want to step outside their comfort zone, resulting in undersized growth and progress. While accepting new technology many people fear and seem unwilling to acquire new skill sets.

- **Skills Gap**
To drive innovation, an adequate level of confidence, knowledge, understanding and skills are required. To ensure a smooth and effective digital transformation, educational institutions must adopt new approaches to up skilling current stakeholders.

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- **Strategy**
With digital transformation in any sector, the major barriers to success know from where to start. As the scene of mass change can be intimidating, understanding which direction to take or how to form a solid strategy can prove difficult.

- **Compatibility**
Present days, the majority of businesses and institutions run on technology-driven systems and infrastructures to ensure a smooth and effective operation. Challenge with digital transformation is that many systems are not compatible with the new digital innovations required to drive them onward. This incompatibility results in a necessity to upgrade current system to achieve integration, which ultimately costs time and money.

- **Talent Gap**
Lack of resources or expertise has emerged as the main challenge in digital transformation. Educational institutions must compete for increasingly scarce talent in a variety of areas from user experience.

- **Legacy integration**
Current legacy systems are often critical to processes in organizations; modern web-based business applications do not guarantee compatibility with them. That's where organizations hit a barrier and are forced to spend more for either upgrade or tradition integration.

- **Data accuracy**
Matter of accuracy and reliability really come into play. Data did you use to implement new processes for the future requires accuracy. Data set is used to make an impactful business decision must be valid. You need salient, timely and precise data to make informed decisions.

Solutions for Digital Transformation
After discussing the obstacles associated with digital transformation within the sector, we will now explore the solutions available to educators.

- **Strategy**
Any change starts with the development of a strategy that not only works in principle, but everyone within the organization understands and can work towards. To create transformation strategy for organization, you must work collectively, identifying your core business aims and goals, as well as the technologies, methodologies and innovations you will need to achieve them.

- **Skills**
Digital skills gap is still quite significant the world over which means at present, the talent pool is rare. As an educational institution, it's our primary business goal to educate and up skill others so that they can prosper and succeed professionally. By adopting this approach internally, we will be able to implement a digitally-driven learning programme that will provide your staff with the skills to evolve their roles within the business and catalyze your digital transformation.

- **Digital data**
It is essential to be able to integrate and leverage data sources of institute seamlessly-understanding where each insight comes from and how it can benefit our institute. To ensure the seamless flow and understanding of the colossal amounts of student-led data available to educational organizations, By taking the time to understand the areas of data that will prove most valuable to our institution and implementing the best tools in which to analyze these metrics, we will be benefitted from a wealth of insights that will help the ongoing evolution of our digital transformation.

- **Automation**
In education, automation could improve invaluable to institutions looking to enhance their digital maturity. Notable time constraints and limited budgets can put a great deal of strain on the modern educational institution. But, by implementing automated systems and technologies to assist with operational tasks from administration workflow management to computing and data collection, it will be possible to increase productivity exponentially with minimal infrastructure, driving down long-term costs and allowing you to place focus on more valuable efforts or activities.

- **Mobile Learning**
Mobility is a necessity of the modern age, and if your prospective students cannot access the information or material they need in a flexible, portal format, your chances of offering them value will be minimized. Mobile learning is an incredibly effective way to deliver value. This innovative development helps the campus' stretched student councilors prioritize those in need and help offer better overall assistance and solutions to alumni in need of help by collecting critical data from the app.

- **Emerging Technologies**
Most emerging technologies offer educators a wealth of potential opportunities-and by embracing new outlets, your institution and faculty stand to gain a huge amount from experimentation and adoption. In the same vein as mobile, emerging trends including voice technology, artificial intelligence, VR machine learning are worth exploring as they will not only significantly enhance your marketing and user experience efforts, but also serve to make your organization more functional, efficient and cutting-edge.

- **Digital Citizenship**
By placing a strong focus on fostering digital citizenship amongst faculty and students by making it a core part of your internal culture, you will ensure that everyone is onboard, possessing the skills, tools and approach to drive your institution into the digital age. Encouraging digital citizenship will foster a culture where people are empowered to enjoy their roles collaboratively and autonomously, working as one cohesive entity to achieve the desired result - digital transformation.

- **Eliminate paper**
Paper-based processes are universal throughout educational institutions. Schools and universities use a tremendous amount of paper that gets running scared through numerous departments and stages. Going paperless has significant benefits and creates amazing new digital experiences for our constituents.

- **Automate operations**

Considering the speed with which technology is impacting organizations of all sizes in all verticals, it is evident that educational institutions that fail to embrace digital transformation will be left behind in the upcoming years. Skyrocketing costs, unaffordable tuition and constrained budgets are putting extreme pressure on the modern educational system to invest in operational excellence to compete in a digitally transformed environment. Workflow automation, development operations, cloud and maximum digitization with minimum infrastructure must be your mantra.

- **Harness the cloud**

Cloud is a vital cog in the wheel of digital transformation; moreover, it lays a foundation for the digital revolution in an organization. Cloud-delivered processes are crucial to enable mobility, speed and to address the skills gap. Cloud vendors have now built up years of experience and significant investments in delivering solutions that are reliable, scalable and secure. If you are looking for agility, efficiency, elasticity and cost optimization then adopting cloud is a must.

Factors that enable the growth of digital education
- Personalized and adaptive learning.
- Two-way conversations in E-Learning.
- Mobile-based learning.
- Video-based learning.
- Open educational resources.
- Usage of Virtual Reality (VR) and Augmented Reality (AR) for learning.

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