IBM Institute for Business Value

Cloud for education

Driving efficiency, improving outcomes and controlling cost

Overview

Education is undergoing transformative changes. On the one hand, democratization of knowledge, digital technologies, industry integration and global mobility foster growth. On the other hand, terms of funding, increased expectations and a need for greater efficiency create challenges. Within this ever-changing landscape, cloud computing offers a new and sustainable means to enhance services, while creating efficiencies and reducing costs.

Using a combination of cloud-delivered services, organizations can accelerate the deployment of enhancements that deliver value to institutions and businesses. Cloud can drive significant value creation. So how can educational institutions realize the benefits of the cloud?

Our experience with cloud computing underscores its power to fundamentally shift competitive landscapes by providing a new platform for creating and delivering value. To take advantage of cloud's potential to transform internal operations, individual and organizational relationships, and industry value chains, organizations across industries must determine how best to employ cloud-enabled models to drive sustained competitive advantage.

Multiple disruptive drivers are reshaping education today. Knowledge is becoming democratized as content grows ubiquitous and access to higher education broadens. Digitization is spawning new opportunities in online, campus-based and blended learning. Integration with industries fuels industry-based learning and new research partnerships. Global mobility increases competition for international students and fosters truly global university brands. At the same time, institutions face changing expectations and a growing need for efficiency.

Cloud technology provides the means for educational institutions to meet these challenges and drive toward new growth. With cloud, institutions can increase data availability, improve educational experiences and increase revenue, while reducing cost. In this environment, educational institutions must stay focused on their key imperatives: improving student outcomes, accelerating innovation and boosting operational efficiency.

Cloud is transforming education

For educational institutions, cloud computing redefines the possibilities, enabling them to control costs, create efficiencies for student and educator services, and take advantage of opportunities for transformation.



Figure 1 Executives in our study report improved data access and increased efficiency from cloud technologies

Improve data access, analysis and utilization



Source: "Mapping the cloud maturity curve" by EIU, March 2015. Question: "What business benefits has your company realized as a result of using cloud technologies?" n=784

Leading educational institutions leverage cloud for:

- Operational innovation Simpler and faster processes drive internal efficiency; consolidation of back office operations enables cost savings; and IT capacity can be readily aligned to the roadmap of the future.
- Revenue model innovation Institutions can provide services to other educational entities or local businesses; regional clouds reduce the need for standalone systems; and value-added services can be introduced.
- Business model innovation Third-party services extend into the education ecosystem; open collaboration and sharing are expanded; and innovation can be systematically introduced across the ecosystem.

As part of the "Mapping the cloud maturity curve" survey by the Economist Intelligence Unit (EIU) in March 2015, 784 executives from 17 industries were asked to identify their organizations' top business drivers behind cloud adoption. The top-three drivers cited were to boost customer demand (cited by 40 percent); improve data access, analysis and utilization (37 percent); and reduce costs and/or liabilities (36 percent).

Organizations across industries have realized significant benefits as a result of cloud adoption during the last two years. Forty-eight percent of the same industry executives said cloud has improved data access, analysis and utilization, while 45 percent said it has improved internal businessprocess efficiency, followed by 45 percent with faster delivery of new IT services and capabilities (see Figure 1).

As educational institutions' adoption of cloud matures, other benefits will also accrue. Education users will be able to design and prototype applications quickly. Institutions can benefit from new user-driven, mobile and cloud-centric information technology. Cloud is expected to support transformation of enterprise IT functions, roles and responsibilities.

Along with benefits for the enterprise, cloud brings the potential for increased benefits for students and educators. Cloud can facilitate new and expanded channels, as well as improve access to student and institutional data, allowing for better, more personalized services. By enabling more integrated, compelling and value-added educational experiences, cloud helps improve the quality of student and institutional services and the ease of doing business – thus improving economic vitality.

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Access the full "Mapping the cloud maturity curve," study here: ibm.com/cloudmaturity

To learn more about how you can partner with IBM and explore our as-a-service cloud portfolio, please visit: ibm.com/cloud-computing/us/en

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Charting the path for cloud adoption

To succeed with cloud, educational organizations have to assess its impact on the operating model and determine what actions are required for more effective cloud adoption.

- Source and manage partnerships and alliances efficiently. Automate
 procurement and sourcing functions. Define service-level agreements
 to secure data in a shared environment.
- Proactively redesign business architecture and processes. Integrate legacy
 processes into new cloud-enabled, dynamic processes. Establish
 available and reliable cloud-based platforms.
- Change organizational design and governance. Prepare to mitigate data privacy and compliance risks with strong risk management systems.
- *Evaluate existing performance management*. Develop strategy and metrics that address new levels of reporting complexity. Build performance metrics into contracts for cloud-based services.
- *Develop critical new cloud capabilities.* Foster skills in customer and service orientation; virtualization and network technologies; and relationship management. Build deeper analytic and operational capabilities.
- Increase adoption of emerging technologies. Update IT strategy to support new business strategy and cloud enablement. Adjust budgets to cover costs of legacy systems and new network bandwidth.
- Reassess location strategies for optimal cloud adoption and to enhance the student experience. Decommission or consolidate technology assets.
- Promote organizational culture changes. Educate staff about organizational changes, addressing resistance by IT and other functions.

How can IBM help?

IBM has a unique position in the marketplace with consulting services and enterprise-grade cloud offerings. We are ideally positioned to engage clients in conversations to identify cloud adoption entry points that move beyond cost cutting to transforming organizational models through cloud capabilities that include:

- Organizational and technology strategy consulting services that help clients leverage cloud to develop executable strategies and transform their IT operations by delivering value through technology.
- The next generation, enterprise cloud service delivery platform, IBM Cloud solutions offer clients unprecedented service level control. This common IBM architecture for private, public and hybrid clouds is based on IBM hardware, software, services and best practices.
- A robust set of IBM Cloud services: computing, storage, backup, SAP, security and unified communications.
- Consulting, design, implementation and infrastructure component management services that create an IT environment dynamic enough to effectively support cloud computing deployment.



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Reference

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