Transforming education with a Data first and Cloud first Approach

Webinar Details

Date: July 12, 2018
Time: 1:00 - 2:00 pm Eastern
Proposed Agenda:
1:00 - 1:05 | Introductions
1:05 - 1:50 | Moderated Session
1:50 - 2:00 | Q&A
Webinar Description

Transforming education with a Cloud first and Data first Approach

The landscape and channels from which students and educators interact has significantly leapfrogged over the past decade. However this represents new age opportunities to harness the power of data with cloud to achieve the following outcomes

1. Improve performance of students with enhanced learning roadmaps using analytics
2. Empower educators to understand students strengths and weaknesses with a segment of 1 approach
3. Increase agility and adaptability of learning platforms using a cloud first approach

Key Takeaways

1. Guidance to using analytics in education with a cloud first approach
2. Driving digital agility leveraging cloud for education
3. Combining advanced analytics with channels to improve course delivery
Of higher education institutions by 2021 will be forced to execute on a personalization strategy to maintain student enrollment.

- Gartner

Of higher education institutions by 2021 will redesign their student experience with the goal of making it more integrated and personalized.

- Gartner

Of educational institutions are investing in descriptive & prescriptive analytics to identify high risk courses, retention & performance levers, etc.

- Educause, Associations for Institutional Research

Of senior leaders and mid-level staff at education institutions are using data for decision making

- Educause, Associations for Institutional Research

Of education institutions are using a data-informed model - uses academic achievement and behavioral data to proactively identify students in need of additional support

- Educause, Associations for Institutional Research

Of educational institutions are not measuring the cost for descriptive, predictive, and early-alert projects.

- Educause, Associations for Institutional Research
Education Institutions are Expected to Be Future-ready

- Declining enrollment, resulting in greater competition for students
- Increase in the proportion of tuition that the students pay for themselves
- Students' rising expectations for personalization
- More funding tied to student success and satisfaction
- Need to deliver targeted, differentiated, integrated and student-driven services
- Growing interest in looking at examples from outside higher education

Gain Better Insights for the Online Program

- Combine Student, Course Data to understand effectiveness
- Unified Datawarehouse on the Cloud with structured and semi-structured from different systems
- ▪ Learning current trends and forecasts for Marketing
- ▪ Management Dashboard on course/student statistics, enrollment funnel
Challenges and the Winning Approach

- **Inculcating a Data Driven Culture**
- **Automation of Manual Business Processes**
- **Gain deeper Insight Into Prospects and Participants**
- **Identify Personas and Design Test Harnesses**
  - Identify challenges and opportunities, and drive decisions
  - Hypothesis driven experiments and A/B testing
- **Take a Data Driven and Process View**
  - Identify purpose-built data products identifying the data structures and pipelines
- **Connecting the Dots, Measures and Testing**
  - Encourage users to report issues and bridge the insights

Transforming Education with a Data-First and Cloud-First Approach

Life Long Learning can be achieved only when the learning journey is **immersive and personalized in real-time** for both Educators and Students which will require harnessing the power of data, insights and cloud to deliver on any device in the right context.
Understand Journey to Deliver Personalized Student Experience for Lifetime

Decoding Core Components of Student Experience

- Journey-based Approach
- Real-time Data-driven Personalization
- Integrated Student Experience
- Proactive Decision Making with Insights and Tools
- Conversational & Embedded Collaboration
- Emerging Technology Enabled and Device Agnostic

Source: Mindtree Survey, Oracle, Gartner, American Express
Build a Student-centric Connected Education Institution
Integration to respond effectively to student needs

Engage Students
- Intelligent Tutoring Systems
- Performance and Learning Analytics
- Student Lifetime Learning Value
- Cognitive Collaboration Systems

Empower Educators
- Smart Curriculum Management
- Course Completion Analysis
- Automated Digital Assessments
- Contextual Collaboration
- Next-generation Learning Spaces

Digitalize the Campus
- Connected Campus Experience
- Smart Facilities Management
- Curriculum Engagement Index
- Enrolment Funnel and Campaign Management

Powered by:
- Internet of Things
- Advanced Analytics
- Mobility
- Cloud

Mindtree

Management of Career Ecosystem per Stream for a non profit focusing on Medical education

Pre Professional
- Pre Qualification
  - Single source of knowledge for all prerequisites
  - Single entry for all summer and experiential programs
- Application Process
  - Entrance score
  - Get Awareness of application process and requirements
  - Submit letter of recommendations and other supporting evidences
  - Apply to different schools
  - Get selected
  - Manage finance
- Qualifying Exam
  - Get all knowledge about Exam requirements
  - Resources for Preparing for exam
  - Single source of knowledge about school requirements

Professional Course
- Education Process
  - Research programs
  - Submit letter of recommendation and other supporting evidence
  - Apply for programs
  - Get selected for programs

Continuing Education
- Fellowships
- Licensure, certifications
- Upgrade of knowledge
- Course Recommendations

Mindtree
Adaptive learning helps solve the challenge of providing scalable personalized learning as it dynamically adjusts the way instructional content is presented to students based on their responses or preferences.

Predictive analytics is a key part of strategies to improve student success and save money through improved retention. Analyzing the students data and test results it can predict different scenarios for better results.

Smart machines or BOTs uses adaptive learning and analytics for algorithmic education. Smart machines can be used for analytics, student and faculty advice, as well as in improving research productivity.

AI-Enabled Conversational Assessments adds interaction, strategy building and real-time feedback to the learning process. The conversational BOTS acts as teacher’s assistant to answer student’s questions as well as can be trained to analyze and grade a student’s answer using NLP or other methods.

Virtual Reality-based Learning transforms online scenarios into interactive, immersive, and dynamic experience in virtual learning environments and enables educators and students to engage with each other through a wide spectrum of interactive resources.
Delivering Personalized Student Experience

Adaptive learning with ML adjusts teaching approaches and provides personalized content based on student data to ensure uniform learning.

Intelligent tutoring systems (ITS) gives supplemental guidance to students and provide in-depth concept knowledge to ensure improvement.

AI-powered BOTS in digital textbook or mobile apps reinforce the concepts and provides retrieval practice with pops up quizzes.

Use virtual reality and gamification integrated with curriculum to teach concepts, wherein students compete to be on the leaderboard and earn extra credits or rewards in the class.

Using robot telepresence technologies students can attend classroom session in real-time and make distance education interactive.

Cognitive collaboration systems and apps with AI-powered BOTS enable students to contextually collaborate with teachers & other student.

Empowering Educators with Insights and Tools

Educators get detailed reports on all students and relative effectiveness of lessons and content, freeing them from low-order assessments.

Data on content usage and relationships between content and learning. Content analytics organize & optimize content modules.

AI-Powered BOTS enable educators to provide real-time assessment and feedback on handheld devices and mobile apps.

Enable educators to track class progress and tailor instruction for students requiring remedial support and develop customized learning plans.

Developing next-generation learning spaces used to capture, manage and share lectures and collaborate with educators and students.

Dynamic scheduling matches students that need help with teachers that have time: It uses learning analytics to schedule personalized learning experiences.
Connecting the Campus and Classrooms

Using iBeacon or location-based services to automate the entry/exit and attendance tracking. Enables reminders and notification push to students, educators and other staff members.

Gathering location-based information and video analytics to create heat maps of campus and better manage classroom space and security.

HVAC sensors coupled with occupation detection can intelligently manage energy and other resources like water, electricity, lighting, and meetings rooms, etc.

Making facilities management efficient through the use of video surveillance cameras and sensors to determine custodial schedule and waste removal.

Universities can use connected devices to monitor their students, staff, and resources and equipment at a reduced operating cost.

Students can track of connected buses and adjust their schedules. Also, video analytics can help automate smart parking.

Gathering location-based information and video analytics to create heat maps of campus and better manage classroom space and security.

Welcome to possible