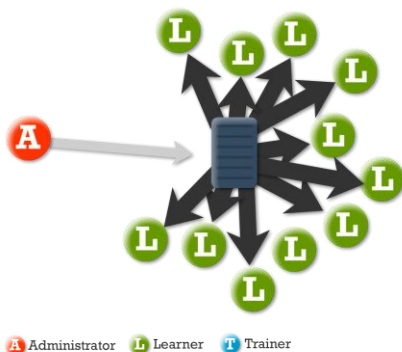


# Pushing the boundaries of e-learning by leveraging emerging technologies

E-learning has often been defined as “*pedagogy empowered by digital technology*”. Digital multimedia technologies have been advancing rapidly over the years and industry leaders have been predicting that Web 2.0 will change the landscape of learning<sup>1</sup>. Despite all of this promise, we are yet to witness a real paradigm shift in e-learning pedagogies. E-learning courses are still viewed as interactive PowerPoint slides with an audio track<sup>2</sup> that rarely come close to simulating real-world business scenarios. Additionally, Gartner’s Hype Cycle defines e-learning as an industry that lies in the trough of disillusionment, as it has not lived up to its overinflated expectations and has rapidly become unfashionable<sup>3</sup>.

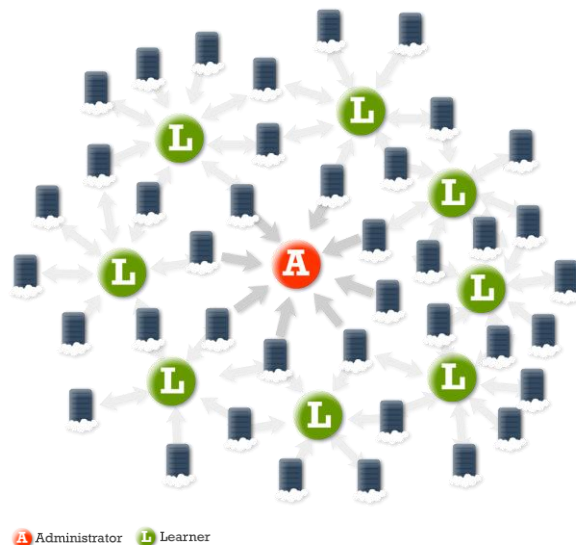
This article discusses the challenges that exist in the \$50 billion<sup>4</sup> e-learning industry that prevent it from living up to its mandate of empowering learners. The article also provides insight into the use of emerging cloud technologies that push the boundaries of e-learning.

The majority of e-learning providers currently host courses internally on an organization’s network or remotely using Software as a Service (SaaS) models. However, learners still experience slow download speeds when the number of people accessing the course increases or when learners from different corporate branches that are geographically dispersed try to access the same course.



To overcome these challenges, there is increased pressure on e-learning instructional designers to reduce the technical sophistication of their courses, therefore minimizing the use of engaging business simulations and visual effects. Although efforts to reduce the technical sophistication improve download speeds, it results in reduced quality of the learning experience and increased time to reach the desired level of proficiency, therefore increasing the investment cost of training.

Today, emerging cloud technologies are enabling organizations to deliver their e-learning content through a virtualized pool of thousands of remotely hosted secure servers across the globe. This significantly mitigates the limitations imposed by physical server hosting methods by introducing a virtual service infrastructure that delivers courses on-demand.



vRetta Inc. (vRetta), a cutting-edge e-learning organization, has been harnessing cloud technologies to deliver courses through virtual infrastructure across the globe. If one of the servers is experiencing heavy traffic load, the learner is automatically connected to the next available server without any interruption in the learning experience. vRetta promotes the use of this emerging technology as ‘*Cloud Learning™ – the next generation of e-learning*’.

<sup>1</sup> Marc Rosenberg: Beyond e-Learning  
<sup>2</sup> Allison Rossett and James Marshall: E-Learning: What’s old is new again  
<sup>3</sup> Gartner’s Hype Cycle for Education: Industry Research, July 27, 2009  
<sup>4</sup> E-Learning: Tritrade Cristina, El Baabousa Florentina, Sion Beatrice, Mihalcescu Cezar

By creatively pushing the limits of cloud computing, Cloud Learning™ technologies significantly increase the speed of delivery providing instructional designers with the liberty to use immersive cinematographic techniques to create highly engaging business simulations to enhance the learning experience.



These highly interactive experiences feed into sophisticated, data-rich statistical software, which administrators utilize to assess and evaluate both hard- and soft-skills learning outcomes.

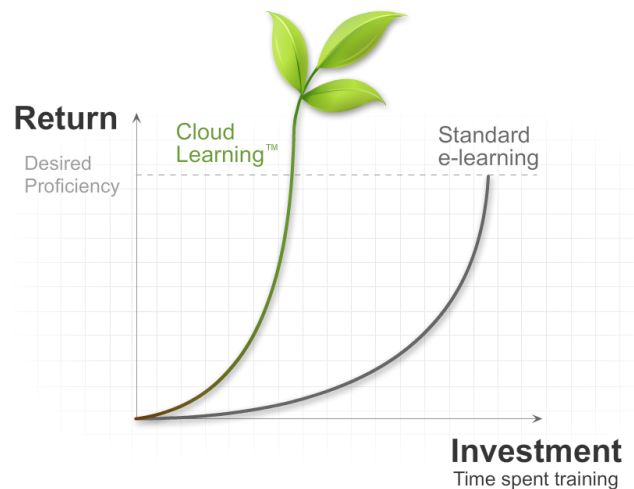
Consider a case study of a global telecommunications company that is undertaking a change initiative to integrate their existing CRM<sup>5</sup> system with a computer telephony integration (CTI) system.

To understand how to effectively use the integrated CRM and CTI system, vRetta simulates a real-world experience, using Cloud Learning™ technologies, that permits the use of a proprietary virtual intelligent overlay, which encapsulates the simulated learning platform to provide learners with real-time hands-on instructions to utilize the system effectively.



This virtual simulated training eliminates the laborious process of toggling between a traditional training video and the application, which eventually speeds-up the training process and gives learners a truly immersive training experience. The result is a successful implementation of the change initiative with users who are highly motivated to adopt the change.

Corporations benefit from Cloud Learning™ through reduced infrastructure costs, lower software installation and training costs and, increased speeds of analyzing and presenting data. Apart from being *green* through energy savings, Cloud Learning™ minimizes overhead costs (as courses are delivered 'on-demand'), increases scalability across global branches (as courses are replicated on secure servers closest to the learner), and eliminates downtime during heavy usage (as learners are transferred seamlessly to a free server closest to them).



When organizations push the boundaries of e-learning by leveraging emerging Cloud technologies, learners will benefit from enhanced learning experiences, increased retention levels, and improved motivation levels. Course administrators will benefit from state-of-the-art modeling and statistical tools to evaluate and assess training outcomes, and stakeholders will benefit from high returns on investment.

<sup>5</sup> CRM: Customer Relationship Management