

**Executive
Summary**

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Just in Time

The Beyond-the-Hype Potential of E-Learning

**By Katie Paris & Mario Morino
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“Essential reading for understanding how e-learning will fundamentally change the way we transfer knowledge.”

– Earving L. Blythe, Vice President Emeritus for Information
Technology and CIO, Virginia Tech

Executive Summary

In the movie *2001: A Space Odyssey*, the computer HAL 9000 made humanity's vast troves of knowledge immediately accessible. In 2014, this science-fiction vision is quickly becoming reality. We are “rapidly moving to a point where what you know is less relevant than how you learn and how fast you can adapt how you learn over time,” in the words of **Mu Sigma** CEO Dhiraj C. Rajaram. While the media has widely reported significant disruption in our education sector, particularly higher education, Rajaram's forecast puts front and center the potential of e-learning to fundamentally change the way we deliver, process, and transfer knowledge across all sectors of our economy, far beyond the confines of the formal education field.

Online distance education has been around for a long time, but what we're witnessing today is qualitatively and quantitatively different. We now have an Internet awash in e-learning offerings, new ed tech companies cropping up overnight, Silicon Valley investing millions, innovations emerging from outside education's mainstream, and people in their living rooms learning how to program.

As with so many of the new tech and online opportunities of the past, however, the hype surrounding e-learning makes it challenging to find the substance. As James Shepard of the nonprofit human capital management consulting firm AchieveMission reminded us, “Early failures made [the introduction of tablet computers] more difficult for Steve Jobs to build internal support at Apple and for long-standing industry experts to **see the new opportunity.**” A recent *New York Times* article, “**After Setbacks, Online Courses Are Rethought,**” noted that “some draw an analogy to mobile phones, which took several generations to progress from clunky and unreliable to indispensable.” And Sebastian Thrun, founder of the online course provider Udacity (and also the inventor of the self-driving car and the project lead on Google Glass), acknowledged, “Few ideas work on the first try. Iteration is key to innovation.”

So why all the hype, attention, and iteration around e-learning right now?

**It's not what you know.
It's how you learn.**

For starters, our nation has incurred a major financial reset. Families are feeling the costs of higher education more than ever before. Simultaneously, relatively recent major advances in technology—including cloud computing, social media, and smartphones—have fundamentally reshaped how we function. Today's youth consider a kid using technology in the '90s a Luddite. As a result, what was “intellectual exchange” at our colleges and universities ten years ago is now pushing boards to ponder their future.

But this movement is fueled by other, deeper trends. **Seismic and structural shifts**, from the aging of America to the redefinition of work, are demanding that organizations and

individuals reinvent themselves and reimagine their futures. Chronic physical health challenges, mass incarceration, permanent unemployment, and other pressures underlie a growing concern about our **population's readiness to compete** in a 21st-century global economy. **Growing challenges for education**, including lagging achievement in K-12 and skyrocketing tuition costs in higher education, are driving individuals and families to demand better options and to question the return on a college degree. Meanwhile, new and emerging **online tools and technologies** are disrupting educational content and delivery, and **free-form, DIY (do-it-yourself) learning** has already moved education well beyond educational institutions and into our everyday lives.

These ingredients of disruptive innovation, combined with others we cannot yet anticipate, will continue to accelerate the speed of access to high-quality, low-cost educational content to a level we have not seen before.

There is little doubt that e-learning will replace some aspects of traditional education. But despite the predictions of technology futurists, what will happen to our educational institutions is not at all straightforward. Organizations will not simply choose between remaining place-based or putting all their offerings online. Many organizations and institutions will blend e-learning and face-to-face instruction. While some of these efforts will amount to cosmetic tweaks or add-ons, the true innovators will go much further. As Clayton Christensen recently **wrote**, “The lessons from any number of industries teach us that those that truly innovate—fundamentally transforming the model, instead of just incorporating the technology into established methods of operation—will have the final say.”

Which institutions live on, which ones disappear, and which ones consolidate—and which educational offerings move online, which remain face-to-face, and which are blended—will depend on several factors:

- **Cost, efficiency, and convenience:** Learners with budget, geographical, family, work, and other life constraints view education as more transactional and are more likely to look to lower-cost, easier-to-access e-learning options.
- **Brand, reputation, and networks:** The prestige of attending select universities and institutions (and the social capital, networks, and connections that go with them) are too strong to be replaced by lower-cost options. But many less-prestigious institutions will change significantly—or wither on the vine.
- **Place and experience:** The more we go high tech, the greater the need for high touch—that is, the emotional and social experience of meeting others in person, in physical places.
- **Structure:** Certain learners, at various stages of life, will continue to need the predictability and oversight that only a physical setting with a set schedule can provide.

Regardless of where organizations or institutions start, it is those that see digital and place-based learning as mutually exclusive that may be in the most trouble.

While institutions navigate these uncertainties, the ground will continue to shift beneath us. Disruption not only changes existing markets (IBIS Capital maps them in this **2013 report**) but also creates new ones. Here are a few of the new opportunities we foresee:

Over the next ten years, we will see, finally, the realization of “**just-in-time learning**”—being able to access information easily and inexpensively at the precise moment of relevance.

We will see many more employers move away from an exclusive focus on “seat time” and credit hours for determining whether candidates are qualified for positions. Employers will give increasing weight to **competency-based assessment and certification**, which offer the promise of faster, more effective career training, job searching, and matching of skills to needs.

As employers seek to leverage e-learning offerings for talent development within their organizations, we will see the mainstreaming of the “**learning concierge**”—content navigation experts who help others find and customize the content they need to learn in order to progress in their careers.

[Access to a computer does not necessarily mean access to education or learning.]

We will see “**blended learning**” proliferate, as organizations experiment with ways to make their educational offerings more relevant, personalized, and interactive, not just cheaper and more scalable.

In the midst of these radical changes, it’s important to keep in mind that access to a computer or mobile technology does not necessarily mean access to education or learning. What matters is the experience that surrounds e-learning and how it’s applied. The best technological innovations mean little without performance-driven leaders and managers committed to continuously improving them.

Drawing on the wisdom shared throughout this year-long learning process, we have organized our observations and lessons into five sections. Here is a brief summary of the insights we share in each:

- **Perspectives on the Current State of E-Learning** – E-learning’s impact will go far beyond the field of education. Merely putting content online is not enough to improve how we teach and learn.
- **Deciding Factors: What Will Determine How It Gets Applied?** – What will happen to our institutions depends on several key factors, including brand, cost, place, and structure.

- **Key Ingredients: What's Making It Possible?** – Disaggregated content and open source are key ingredients of innovation in e-learning.
- **Value Proposition: Why Incorporate E-Learning?** – It's not just about scale. In addition to introducing the reality of just-in-time learning, e-learning offers the potential of continuous improvement via immediate feedback; personalization via measurement and self-pacing; and new ways of engaging in active learning (or “learning by doing”) and learning from peers.
- **Considerations for the Future: Where Are We Headed?** – With radical shifts in accreditation and certification, e-learning has profound potential to change the flow of talent across all sectors.

As you consider these observations, please keep the following caveats in mind:

- Most of the disruptive innovations will continue to come from the periphery, not from established institutions.
- Limited data on performance make it difficult to develop conclusions on the newer innovations.
- Much of the media coverage and analysis of the recent surge in e-learning fails to take into account the extensive experience, lessons learned, and achievements in distance learning and other e-learning models in the federal government and higher education.
- The lack of comprehensive market/area segmentation analysis inadvertently focuses attention on higher education and K-12 at the exclusion of other major markets, largely ignoring the broader potential e-learning offers.

Finally, in the **appendices** at the end of this report, we provide the methodology we used to gain a better understanding of the field, the broad definition of “e-learning” we used in this report, basic ways to think more specifically about applying e-learning (in your own work, within your organization, and externally), and a list of recommended resources.