
Six Approaches to Effective Digital Learning

How Emerging Technologies Are Transforming
Education & Corporate Training



A report from

KGL

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Teachers, employers, publishers, and HR professionals may think they know online learning. After all, digital platforms have been a part of education and corporate training for decades. But many organizational initiatives have not kept up with the way we live and work today, where students and employees prefer to access knowledge via their mobile phones or laptops and learn at their own pace. Digital courses need to be intelligent and multifaceted, offering a wide choice of media to meet unique learning styles.

Learners have evolved alongside technology and expect digital learning experiences. The rising generation of students and professionals has grown up with access to the internet through smartphones and tablets. They watch videos and play games online. They uncover new ideas and music with the tap of a screen. Creating a digital curriculum that incorporates these instantaneous, multimedia elements meets learners where they are and drives positive learning results.

Digital learning is effective. Learners come into the classroom or workplace with widely different needs. Some understand lessons better through visual prompts, while others prefer lectures or learn better from hands-on projects. The constant challenge of an educator or trainer is meeting these divergent needs in a single classroom. Digital learning can help fill these gaps through a blended approach and provide the supplemental learning that a single instructor cannot.

Studies indicate that digital learning has several benefits, including improved learning outcomes, greater access for learners, and increased return on investment for schools and businesses. According to [recent research by Arizona State University](#), colleges that offered online courses had higher retention and graduation rates than institutions that did not. The study also showed that adaptive courseware – technology that reveals which learners need intervention and in what areas – helped close achievement gaps for minority and Pell-Grant-eligible students.

All of these forces have combined to make digital learning the driving force in education and corporate training. According to intelligence firm [Research and Markets](#), digital learning will become a \$325 billion industry by 2025. That is triple the digital learning revenue reported in 2015, \$107 billion.

Education publishers and corporate learning and development (L&D) leaders need to keep pace with this transformation in order to best serve students

and professionals. But it is challenging to identify what technology will actually make an impact. Investing in technology simply for its own sake can lead publishers and L&D officers down an expensive and ultimately fruitless path.

This report explores pivotal digital learning practices that businesses and institutions should embrace. It also addresses how emerging technologies impact cost savings, learning, and accessibility.

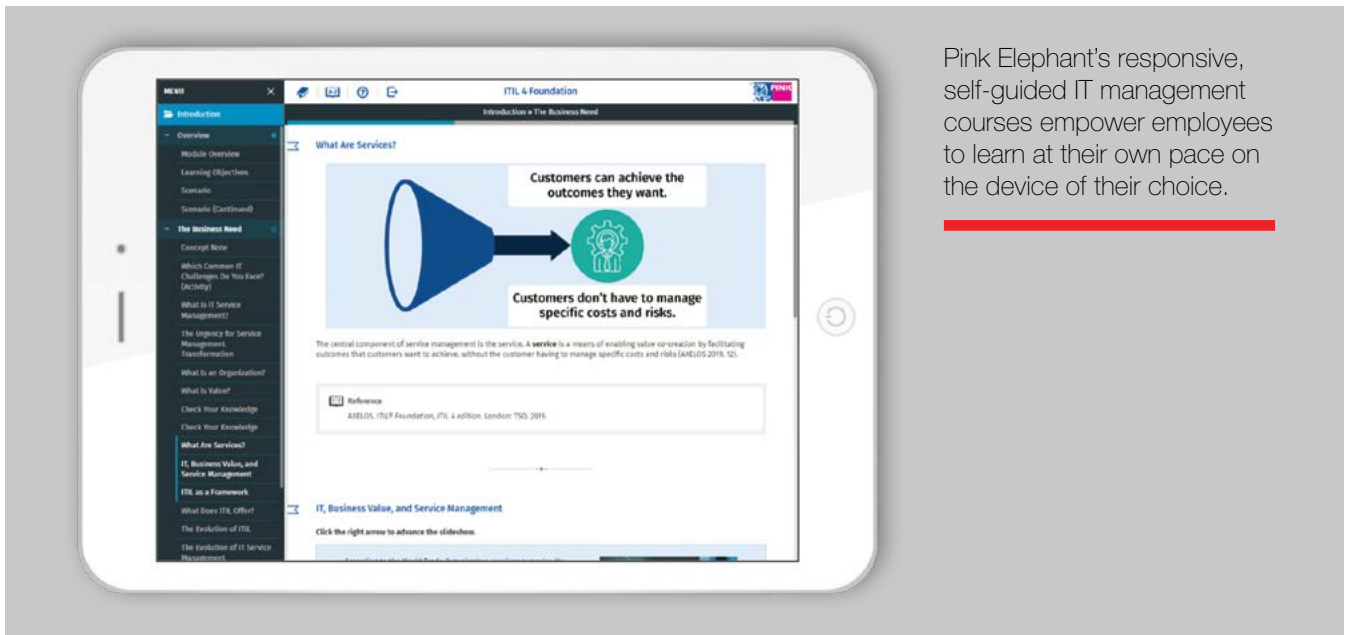
Top Tips for Digital Learning Blended Learning

Blended learning bridges the gap between the classroom and digital worlds by reinforcing traditional approaches with elements such as video, animation, games, or digital assessment. The benefits of blended learning are that it engages learners in interactive and immersive content, while still providing the individual support and insight of an instructor. This appeals to a wide variety of learning styles.

“In education, blended learning takes advantage of the digital tools that are available, but also recognizes that schools and learners are not necessarily ready to replace traditional classroom learning,” explains Sonny Regelman, Executive Director of Strategic Initiatives at KnowledgeWorks Global Ltd. (KGL).

There are multiple reasons why K–12 and higher education classrooms have not gone fully digital, says Regelman. Particularly in K–12 classrooms, access to internet and devices may be limited. The cost to build and maintain the infrastructure for high-tech, digital learning is beyond many schools’ means. Further, some lessons are still learned best in the classroom setting with an instructor.

*“If you don’t have engagement,
you don’t have cognitive retention.”*



Pink Elephant's responsive, self-guided IT management courses empower employees to learn at their own pace on the device of their choice.

Businesses, although faced with the same cost issues, are able to adapt more quickly due to existing digital infrastructures. In fact, many businesses can save money in the long term by incorporating a blended approach.

Blended learning is a necessity for corporations and publishers to standardize digital learning and make it more widely accessible to learners online. That eliminates the need for time-consuming and costly in-person courses. Instead, learners can use digital content to reinforce in-person lessons and learn at their own pace.

“If you don’t have engagement, you don’t have cognitive retention,” says Kelly Lake, Global Head of Corporate Learning at KGL. “Learners can focus on what they need by taking learning into their own hands. This helps them learn faster, and that’s why blended learning has experienced substantial growth in the corporate world in recent years.”

Lake adds that digital components are attractive for both teachers and corporate instructors due to reusability. Instructors don’t need to redesign courses for each training; rather, they can repurpose the digital learning. In addition, says Lake, blended learning increases ROI and learner engagement, emphasizing the need for this personalized approach in many organizations.

Multi-Device Access

Multi-device access is a feature that bolsters most digital learning today. With this capability, learners can access a digital lesson on any device, whether that is a home laptop

or smartphone. With advances in HTML and responsive design, publishers and organizations are developing courses that can fit any screen.

The benefits of multi-device access are many. It provides learners greater access to content. Instead of only finding course materials in a book, learners can locate the same material on their personal devices. They are empowered to learn wherever and whenever they can.

“Once publishers and instructional designers adopted HTML5, it became much easier for content to resize for different screen sizes,” says Regelman. “Almost all digital learning materials developed today are accessible across devices. And that’s powering trends such as blended learning, MicroLearning, and even things like augmented reality.”

Global conference and training provider Pink Elephant recently worked with KGL to develop self-guided IT management courses that replace instructor-led courses. The goal was to cut costs for Pink Elephant and reduce the amount of time employees need to complete a certification course.

A key part of this solution was the responsive nature of the content, says Felipe Villegas, Director of Product Management at Pink Elephant. “KGL developed the IT management training course with accessibility in mind,” says Villegas. “Learners, including those with special needs, could access the course on the device of their choice and complete the lesson at their own pace.”

Multi-device access allowed employees to learn the material faster and reduced the time it took to complete the course by 33%. This time savings ensured learners were able to gain new skills and make an impact on the business sooner, driving greater ROI for Pink Elephant.

MicroLearning

Time is an increasingly valuable commodity, and the goal of MicroLearning is to provide the right amount of content for quick access while ensuring effective instructional design. Many students and professionals have a limited amount of minutes and attention to attain the concepts they need for success, and the overwhelming amount of information now available at their fingertips only heightens this challenge.

New advances in MicroLearning allow organizations and educators to provide next-level interactivity to their learners. By incorporating games, interactive videos, simulations, and chat bots, advanced designs include immersive experiences that promote learner participation.

“How many professionals have time to take an online course? Or how do they even know an online course is worth their time? MicroLearning solves both these issues,” says Lake. “The advancements in MicroLearning allow organizations and publishers the ability to provide personalized learning that addresses individual learning styles. Microbursts of learning enable just-in-time accessibility incorporating blended approaches that produce effective results for all learners.”

MicroLearning allows learners to focus on the concepts they need to understand most so that they can leverage their time and attention as efficiently as possible. This is particularly valuable in helping students and employees navigate a successful learning journey and increase productivity.

For example, KGL incorporated both video and short assessments to reinforce lessons in the IT management courses it developed for Pink Elephant. This helped learners stay engaged and retain course information. Learners could revisit these assessments or videos at any time as they progressed through the course. According to Villegas, students who took the digital course had a higher certification rate than students who took the instructor-led course.

Rapid Authoring

Rapid authoring is a core technological advancement that is making digital learning possible for schools and organizations. With rapid authoring, instructional designers

write a course once using an XML editor. They can then deliver that course to all devices and browsers without the need to develop multiple iterations.

This saves time and money on the development side because fewer teams need to work on a given course. In the past a content team would write the course, a design team would lay it out, and a programming team would build the final product. Now, with rapid authoring, a content team can write the entire course with minimal tweaks and adjustments from the development team.

The key to rapid authoring is building a robust XML platform that automatically styles and formats content so that it is compatible with multiple devices. This can require significant costs up front, but the savings over time are substantial.

“The efficiency of content creation increases well over 45%,” says Lake. “This saves the client money while producing effective and consistent content faster. It is especially valuable if you are in an industry that requires constant updates to ensure learners are compliant with regulations. With the increase of requirements for the global workforce, rapid authoring is key to reducing development costs and improving knowledge retention.”

Rapid authoring makes it feasible for publishers and businesses to scale digital learning. They can develop content quickly and cheaply and push that content out to a wide number of users in a consistent and efficient manner.

Gamification

Games can be a powerful vehicle for education and training. People are constantly challenging themselves to reach the next level. Gamification is built on the idea that the drive to advance or win can accelerate learning.

“Educators ask, ‘What will encourage learners to bring their brain to the party?’” explains Regelman. “Learners love games because they get multiple chances to master a stage or concept, and if we can make learning more like a game, they might be more willing to engage. They don’t

“Learners love games because they get multiple chances to master a stage or concept, and if we can make learning more like a game, they might be more willing to engage.”



Interactive challenges in Golden Voice English's online program make English language lessons more engaging and effective for students.

experience failure after one try, like they may in traditional testing scenarios. Greater engagement will help them retain more knowledge.”

More industries are adopting gamification as an effective strategy to engage learners in immersive learning and yield greater retention. This appeals to the modern workforce by providing interactive scenarios in which professionals can excel, if designed correctly.

In the last two years, publishers and organizations have increasingly utilized gamification in blended learning. By incorporating gamification in MicroLearning, assessments, and immersive learning, organizations and publishers provide performance-based learning that is more cost effective and increases knowledge retention through multiple learning experiences.

“Organizations are seeing up to 70% more engagement with gamification,” states Lake. “There is also an increase in learner attention with mobile apps and gamification. As we continue to look at new ways to incorporate gamification into learning, AR and VR will become prominent tools to develop these immersive experiences.”

In line with this trend, KGL creates enticing game-based learning encompassing instructional and graphic design for educators and organizations while embracing trends and adopting client-specific approaches.

Augmented Reality and Virtual Reality

Like gamification, augmented reality (AR) and virtual reality (VR) drive impressive engagement. These immersive technologies bring educational experiences to life for learners, and the widespread popularity of AR apps presents a massive opportunity for publishers and corporate organizations.

AR and VR apps can take K–12 learners on virtual field trips to museums and historic sites that would be nearly impossible for them to visit otherwise. In the same way, organizations can implement AR and VR technology to create hands-on trainings and simulations.

“Over the next few years, I think we’re going to see a spike in ways to integrate AR and VR into digital learning,” says Regelman. “There is a lot of buzz around these technologies, but I think publishers are still figuring out the best ways to apply them.”

AR and VR are both nascent learning tools. But technology growth, particularly increasing processing speeds and faster, 5G internet, is paving the way for more sophisticated solutions.

For organizations, VR enables employees to learn through practical experience. Experiential learning is the most effective way to learn, and studies have shown that learning through experience increases retention by 75-85%.

“The corporate learning market already uses AR/VR for product training, new hire onboarding, medical and healthcare procedural training, military, and manufacturing, to name a few,” Lake commented.

The Benefits of Digital Learning

Ready Access

“One of the greatest benefits of digital learning is the ease of access. Learners can access targeted information when they need it and how they need it,” says Lake. “The ability to access digital content through multiple devices makes this possible.”

This is particularly valuable when students need to reinforce important lessons. KGL revamped a math program, *Everyday Mathematics*, on behalf of McGraw-Hill Education. Designed to meet Common Core standards, the program emphasizes key math concepts through real-world applications and practice. For example, in one of the online games, students complete multiplication problems as they advance through a baseball game.

KGL redesigned interactive games and developed new games for *Everyday Mathematics* using HTML5 technology. That ensured the gaming experience is consistent across different browsers and devices.

The results have been positive, according to McGraw-Hill Education. “The games are a critical and much-loved part of the *Everyday Mathematics* curriculum, and they have a deep and profound impact on thousands of classrooms and hundreds of thousands of students,” says Brad Shank, Director of Product Management at McGraw-Hill Education.

Now that the games are responsive to multiple devices, students can grasp new math concepts wherever and whenever they want.

Accessibility also means meeting the needs of learners who may have visual or hearing disabilities. Digital courses such as *Everyday Mathematics* are built on accessibility standards that have features such as text-to-speech, font adjustments, and visual descriptions. Digital formats allow publishers and businesses to develop materials once and fulfill the unique requirements of every learner, as well as global industry requirements.

Engagement

Digital learning has the flexibility to teach users of different learning styles through interactive and immersive content. This deep engagement drives greater cognition and retention, and serves the needs of learners who may not learn as well from traditional training.



Students practice multiplication while playing baseball in McGraw-Hill Education's *Everyday Mathematics* program.

“One of the greatest benefits of digital learning is the ease of access.”

“There are multiple types of learners,” says Regelman. “Some people are kinesthetic learners: they learn better if they work with their hands. Some people are auditory learners. Some are visual learners. Digital is a way for students to encounter multiple modes of learning.”

One of the best examples of engaging digital learning is the immersive program KGL developed for the [ESL company Golden Voice English](#). KGL created a fully interactive online program in which Chinese students test their English pronunciation by comparing their own voices to native speakers. The program also includes hundreds of listening exercises, animations, and assessments.

The program incorporates interactive challenges to make learning English more enjoyable and effective. The results speak for themselves: GVE reports that students double their English-speaking ability after using the program. It has produced such success that the ESL company developed additional courses to engage students during the summer months.

“We design for all learners with a specific expertise in generational learning,” stated Lake. “Understanding the modern learner enables KGL to reduce the time and cost for organizations. We design learning strategies for organizations based in learner engagement best practices combined with advanced instructional design and proven ROI.”

Cost Savings

With the right digital infrastructure in place, schools and organizations can reduce costs and improve their return on investment using digital learning. For this reason, businesses continue to adopt digital learning for training and certifications.

“The number one thing for a business is return on investment,” explains Lake. “How quickly can organizations provide engaging experiences for learners and have them demonstrate knowledge successfully to impact the business? Digital learning increases

performance by enriching learner experiences, which translates into greater revenue.”

Pink Elephant not only reduced the time it took for employees to complete the IT management course, but it also cut costs for IT businesses. The digital courses eliminated the need for in-person trainings, reducing travel costs, training space costs, and the expense of hosting multiple trainings for different regions.

“The courses are fast, and they incorporate knowledge checks and practical applications that help employees grasp important concepts immediately,” says Villegas. “We’ve seen a higher pass rate for these self-led courses than the instructor-led. That means there’s a better return for our customers as well.”

A Unique Approach to Digital Learning

Digital learning can be a powerful tool for education and training if done right. It must incorporate the appropriate learning theory and pedagogy, and it must be visually and technically engaging. The technology behind the content must support ease of access with fast and responsive design. Every aspect of the digital material must reinforce understanding.

“One of the biggest benefits of working with KGL is the education expertise,” says Villegas. “KGL didn’t just convert our instructor-led courses to digital. They added assessments and real-life examples to reinforce the original material and ensure that our courses resonated with every type of learner.”

KnowledgeWorks Global Ltd. combines standards-based instruction with interactive environments to transform learning materials. For GVE, KGL developed a massive online course that gives English language learners the individual attention they need to develop their language skills. At Pink Elephant, KGL created a completely self-contained course, filled with assessments and videos so that the material serves every type of learner.

“KnowledgeWorks Global Ltd. is constantly evolving,” says Lake. “We are incorporating more interactive applications and pushing into the next level of augmented reality. We choose to elevate organizations so that they can effectively provide immersive learning experiences for new generations of employees and students.”



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KnowledgeWorks Global Ltd. (KGL) is your consultative partner for corporate learning strategies, helping organizations improve their performance through end-to-end support of their development and business goals. Employing teams of learning experts in the US, UK, and India, KGL combines the best of regional knowledge and service with global infrastructure and efficiencies. Our services include strategic consulting, managed services, and content development utilizing a variety of established and emerging methods and technologies. Empowering learners from potential to performance, our custom solutions deliver immersive, interactive, and accessible experiences that transform routine training into engaging and effective learning.

kwglobal.com/learning

North America | Europe | Asia

info@kwglobal.com

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