



**SYSTEM SIMULATIONS**

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*The appeal of organizational learning ought to be obvious: learning faster than the competition may be the only real sustainable competitive advantage. This paper shows how emerging technologies applied with proven principles promises to supercharge your corporate learning programs.*

# The Future of e-Learning

By Bill Siino  
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## Introduction

In today's knowledge society, the ability to develop your people and incorporate learning into the fabric of your organization can be a real competitive advantage. Learning is essential in order to perform, improve, and innovate. As a vehicle for learning, training becomes a mission-critical part of business success.

We live in an exciting time where technology has made the world's information available at our fingertips. Both inside and outside your organization, the complexity is rising, and you need efficient solutions to stay ahead. Inside the organization, you not only need the right information, you also need to develop technical skills and evolve individual behavior so your people and partners line up with the organization's values and strategic intent.

Several new and promising technologies have emerged in the two decades since we created the first computer-based training programs for corporate clients. These technologies are enabling us to maximize the effectiveness of our training programs.

In this paper, we will review some of these technologies and discuss how they are changing corporate training. Such technologies compliment the principles that we believe must ground all effective learning programs.

## Emerging Training Technologies

### Online Community – Learning with Other People

Learning in an individual setting is useful when it comes to information acquisition or simple skills building. For more complex skills building, or for learning that requires changing perspectives or behavior, a classroom setting is more effective. In the classroom, learners have the advantage of interaction with the teacher and other students.

Fortunately, Internet technologies now allow us to build online communities that can take the form of virtual classrooms, allowing interaction between students and instructor as well as between peer students. These technologies are effectively being used by some of the top educational institutions and are beginning to be embraced for corporate training within organizations.

To develop a successful virtual classroom requires a blending of design and technology. The goal is to reproduce the “temporary community” characteristic of the most successful learning experiences. The virtual classroom includes an online facilitator, group participation, identification of learners with other students in the class, and both synchronous and asynchronous events. Developing the virtual classroom requires expertise in both instructor-led training and online training. It also demands understanding of Web-based communication and interaction technologies. We have combined these skills to create solutions for clients.

### Virtual Simulations – Learning through Play, and Trial and Error

One of the most fundamental ways that humans learn is through play. We use toys and games to test reality and to try on new behaviors. A toy can manifest as a prototype product or be represented by computers, as in the case of a flight simulator. What is important is that the toy is a representation of the real world. The learner can then experiment with the toy and gain practical knowledge without having to fear the consequences of making a mistake. People playing and learning in this way move from one level of understanding of the world to another. This is an advanced type of learning where we have the potential to change and evolve our knowledge and mindset.

The Internet is allowing us fundamental new ways to play games in virtual environments that simulate real or fantasy situations. Individuals can take on new personas as avatars and create imaginary worlds. Games can be played individually or online with other people that interact in the same environment. By applying some of the technologies that are enabling Internet games, online training in the corporate world will see great advances.

The impulse to start our company, System Simulations, came from our expertise with advanced simulations for the military. We used this experience to develop simulations for corporate learning. For example, we helped an automotive company simulate its service-and-parts operations and its dealership sales. This allowed learners to enter the dealership environment and perform all procedures from greeting to follow-up.

### Organizing Information – Learning to Use Business Intelligence

Google revolutionized how we access information with its rules-based search engine. We use this application of artificial intelligence to access

useful information every day. But now we are drowning in information that we do not have the capacity to absorb. This goes for information on the Web as well as for information inside our organizations.

By codifying the corporation's process and policy rules, organizations can turn information into knowledge and action. Rules-based systems promise to add to our natural intelligence and assist us in decision making. This allows businesses to implement and execute with greater consistency across the organization, independent of distance and other boundaries.

The borders between learning and business intelligence solutions are evaporating. We see this in the interplay between our e-learning programs and the Learning Management (Virtual Academy) solutions that we provide. The Virtual Academy tracks business performance and acts as an organizer with access to organizational information.

### Mobile Access - Learning Just-in-time Everywhere

Training is most effective just when the learning is needed, since relevance and the learner's motivation are highest at that point in time. With many employees working from home or on the road, learning systems must provide flexible access and incorporate the latest mobile technology.

Mobile technology in the form of portable laptops, phones and the next generation of interactive tablets will become the devices from where businesses access learning programs and information. From our experience hosting and administering clients' learning systems, we realize that training programs are used by people at all times and from all locations around the globe.

## **Success Factors**

Several of our clients have enjoyed emerging technologies in the learning solutions we designed for them. But we find that application of these technologies must be based in proven instructional design principles. Here are the factors behind our two-decade success in delivering learning solutions.

### Getting the Right Talent on the Team

Every engagement starts with the same question: "Who should be on the team?" Aside from our fulltime staff, we have a stable of many talented instructional designers, instructional writers, animators, illustrators, actors and 3D modeling experts. We engage these people to produce highly compelling training for a variety of applications that range from human development to complex technical systems.

One of the factors that differentiates our company is our writers' experience in organizational and learning materials. Another is our producers' skill in transferring that knowledge to computer. Our clients frequently comment on the outstanding quality of the people we assign to their project.

### Clarifying the Learning Objectives

Another ingredient of our success is the time we take to make sure we understand our clients' learning objectives and desired outcomes. Our products demonstrate when learning objectives are met. We define learning objectives through input from subject-matter experts and from students.

We frequently video-interview learners, instructors, and others to determine exactly what the learner should know or be able to do when e-learning has been completed. This is defined before starting production, so media and interaction focus on learning objectives that all have agreed to.

### Getting the Details from Subject-Matter Experts

Detailed e-learning content is always produced by interviewing people who already know the content. We want to get into the head of the subject-matter expert so we learn how to transfer the knowledge. This ensures that we present content in a form that is most familiar and accessible to the learner. We develop detailed storyboards and scripts so stakeholders know exactly what the end-product will be before we begin production.

### Considering the Existing Knowledge of the Learner

Training that is too easy or simplistic loses a student's interest. This is particularly true with online training programs that compete with other things for the learner's attention. E-learning is most engaging and effective when it considers the existing knowledge of the student. One way to make sure a course hits its mark is to allow students to "test out" of sections of material they may already know. Another way is to electronically gather personal observations about learners from their managers, supervisors, and other people learners interact with. These observations help tailor the e-Learning and suggest development opportunities for the learner.

### No Interference in Efficient Absorption

Our team presents information in a way that ensures effective learning by the target audience. We strive for efficient absorption of knowledge, allowing nothing to interfere with that. As a damp sponge absorbs water faster than a dry one, our students absorb, retain, and demonstrate the knowledge and skills they need without the dryness introduced by something non-intuitive to them.

### Making Complex Subjects Simple to Digest

It is simple to make something hard, but hard to make something simple. Our writing style really gets to the point. We are masters at using few words to describe complex tasks or operations in a simple way. It comes down to the instructional designer and the instructional writer.

We make what is difficult to absorb look easy so your people get it, use it, and change behaviors. This is one of our biggest differentiators, especially when it comes to complex technical subjects or programs requiring human change. Our team spends much time ensuring that courses present the learning in the most compelling manner.

### Applying Technology for Maximum Engagement

Frankly, the online training we see inside corporations is often boring for the intended learner, who doesn't care about the content. Comments from students typically report that courses are too long, superficial, irrelevant to their jobs, or presented in confusing formats and terms.

There are many ways to apply technology unproductively and few ways to ensure maximum student interest and absorption. Our talented production staff knows when to apply what technology, bringing the learning alive in ways that engage both beginning and advanced students.

### Proven, Cost-Effective Process for Fast-Track Production

We are able to produce e-Learning much less expensively and much more quickly than our competitors. Why? Because we are sharply focused, presenting only information the learner needs to know and cares about.

Our success comes from highly skilled staff, dedication to your goals, and our ability to fast-track development and implementation. If you read the website testimonials from our clients, many comment on our ability to manage scope, time and budget.

## About System Simulations

System Simulations was founded in 1991 to offer corporate clients interactive training and Web solutions. The company developed its first training application for Nissan's Corporate Training Office. Since that time, System Simulations has produced hundreds of large-scale web and computer-based training applications for large corporations in the automotive and other industries. Hundreds of thousands of individuals have taken courses covering applications ranging from human development to complex technical systems.

## About the Author

Bill Siino has more than 20 years of experience designing, engineering, and producing interactive training and Web solutions. He crafts solutions within a blended media environment. Skilled in both military and commercial training systems, Bill has designed and managed CD-ROM, DVD, and Internet training systems for large corporate clients. He holds both bachelor and master degrees in electrical engineering.

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