Corporate Training Goes Virtual:
A Hybrid Approach to Experiential Learning


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Can You Teach an Old Dog New Tricks?

Paper (and Pencil) Training in a Digital World

The Millennial Generation is eagerly knocking at the door of Corporate America. These 80 million members of “Gen Y” are optimistic, confident, multicultural, and goal-oriented. They excel at multitasking, like to collaborate, and enjoy cooperative activities. Most importantly, they are avid social networkers, bloggers, and videogamers. They see the world through a digital lens and often appear to be more comfortable interacting with a colleague’s Facebook page or virtual world avatar than conversing in face-to-face situations.

Can traditional “chalk and talk” corporate training techniques adequately address the needs of these new knowledge workers? Can existing training programs accommodate learners who have grown up holding a mouse or joystick rather than a pencil? These “Digital Natives” will change the game for companies, and employers need to anticipate these changes now. Forward-thinking organizations from IBM to the U.S. Army already are experimenting with new 3D immersive learning platforms that synchronize with the dynamic recreational environments in which young people immerse themselves every day.

Virtual environments hold tremendous promise for corporate training, but they are not a panacea. Nor is it likely that they will entirely replace traditional in-person techniques (at least in the near future). To reflect this reality, we advocate a hybrid approach to curriculum development that “cherry-picks” the best aspects of each domain and appeals to multiple learning styles. Furthermore, we propose that these factors vary significantly depending upon the type of learning the organization needs to stress. At this point it is important to make a
distinction between education and training. The purpose of education is to increase insight and understanding; it teaches the “why.” Training on the other hand increases skills and competence; it teaches employees the "how" of a job (Stack & Lovern, 1995). Whereas both types of instruction can be delivered with the use of 3D immersive environments, the emphasis of this chapter is corporate training.

In this chapter, we will discuss the learning styles of Millennials and explore how virtual world platforms can mesh with the learning styles of these new workers. We also will explore the different types of learning that need to occur in the corporate world, and review attempts others have made to transfer each type of learning to a virtual environment.

In particular, we will emphasize a dichotomy of content versus experience-based learning. Content-based learning refers to the acquisition of knowledge and mastery of concepts (lectures), while experience-based learning refers to the acquisition of skills, and mastery of interpersonal contingencies (role-playing).

We identify the types of conditions that argue for an immersive digital platform, as opposed to a traditional face-to-face or distance learning encounter. We then develop a specific scenario within the domain of pharmaceutical sales training that illustrates how corporate educators can deliver both types of learning using a hybrid real/virtual platform.

**Learning Styles of the Millennial Employee**

The emergence of new information and communication technologies has significantly influenced the way we learn, and the way we teach. As Table 1 illustrates, each new generation develops technological innovations that eventually find their way into corporate classrooms.
For the Millennial generation, born after 1982 and raised in a digital world, immersive communications technologies are an integral part of everyday life. By preschool, kids are exposed to the Web and virtual education. By middle school, the Web is a frequent resource for homework assignments. Exposure to the technology increases throughout high school, and for
many students, the college experience offers podcasts, virtual world simulations, and blogs as standard learning tools. When this generation reaches the workplace the expectation is that technology-based instruction is the norm and not the exception.

To appeal to the learning styles of the younger generation, companies need to evolve their traditional methods of instruction to include new technology. Characteristics of Millennials’ learning styles include “…fluency in multiple media and in simulation-based virtual settings, communal learning, a balance among experiential learning, guided mentoring and collection reflection” (Dede, 2005). Individuals who exhibit a Millennial learning style are very accustomed to “multiprocessing” and switching contexts rapidly. They often don’t realize that they are carrying out multiple tasks simultaneously (Brown, 2000). Collaborative learning is also key to this generation. They are as comfortable in a group environment as the Baby Boomer generation was with independent study (Howe and Strauss, 2000). They are highly receptive to technology-based pedagogical experiences, and they thrive in online environments (Ferrell & Ferrell, 2002).

A childhood filled with interactive video games has created similar expectations regarding interactive educational experiences, and many Millennial learners naturally try to combine their learning and entertainment, finding success in discovery-based learning modules (Brown, 2000). Early exposure to video games has also given this generation of learners a fondness for trial-and-error learning, since winning their favorite game often requires players to try, fail and try again in an environment of suspended reality (Frand, 2000), again reinforcing their learning through discovery. Other characteristics of the Millennial learning style include an
overall positive attitude, goal orientation, and a collaborative, team-driven approach (Oblinger, 2008).

A major aspect of the Millennial’s experience is never having been “disconnected.” That is, through cell phones, instant messaging, Twitter, Facebook, and myriad other modalities, the Millennials are always in touch with someone – on a digital rather than physical channel. As a result, they do not value traditional “face time” when compared to their older siblings. They also have expectations for instantaneous access and response that cannot always be provided in traditional settings, often favoring instant or text messaging over the delays associated with emailing (Oblinger, 2008). Hence, trainers who are not Millennials must be careful not to overly interject their own value system into the development of training models for this younger generation. They need to question the blanket assumption that more face-to-face training necessarily translates into more effective learning. In fact, given their proclivity toward all things technological, Millennials can be surprisingly efficient at grasping information on their own through a coached virtual environment. When designing their curricula, non-Millennial trainers must also keep in mind that most Millennial learners do best in a non-linear, parallel cognition environment versus the sequential, linear and structured systems preferred by past generations (Prensky, 2001).

The military has been quick to adapt to this change in learning preferences. In 2002, the U.S. Army launched the computer simulation, America’s Army. Now in its third edition, this web-based virtual environment allows young people to participate in team-based virtual missions, and explore Army career opportunities in the process. Today, the simulation boasts over 9 million registered players. In addition, the Army’s website (www.goarmy.com) is home
to Sergeant Star, a 6’3” (in the real world), no nonsense, straight-talking virtual guide. Since his launch in 2006, Sergeant Star has become the face of Army recruiting, engaging visitors and answering more than three million questions from potential recruits (“Army’s Sergeant,” 2009). Both of these initiatives have been very successful in providing career information in an engaging environment, without the need to speak face-to-face with a real recruiter.

**Migrating Millennials to Corporate Training**

For many industries, human capital is one of the most important sources of competitive advantage (“Corporate Education,” 2007). To maximize employee potential and stay ahead in an environment where knowledge becomes obsolete faster than ever, companies need to make significant investments in the training of new employees and periodic retraining where necessary. In 2007, U.S. companies and organizations spent $58.8 billion on employee training; a 4.8% increase over the previous year (“2007 Industry,” 2007). In the increasingly complex and hurried corporate workplace, it seems that employees have more to learn, and less time in which to learn it (Musselwhite, 2006). As such, the goal of upper management is to maximize the cost-effectiveness of instruction, while minimizing employee downtime during the training experience.

There is an important caveat that bears mention here. A pervasive attitude in some organizations today, with regard to Millennial workers, is that the firm should not be obligated to match new employees’ learning preferences – that is, “Let them mold themselves to our corporate culture and ways.” Of course, this rallying cry comes from mostly Boomer and Gen X
managers who, as we have seen, grew up with a very different learning model. They therefore assume that the traditional learning styles to which they are accustomed are superior.

We caution organizational leaders not to fall into this self-indulgent trap! The very essence of effective training is that the modalities should be target-driven. Millennials are bright, intuitive, quick learners, and they are used to seeking out information on their own via the Internet. Providing a training platform that fits their comfort level can only prove more efficient than trying to match their “square peg” learning preferences into a firm’s “round hole” delivery system.

Matching Learning Objectives and Content Delivery

We categorize corporate learning goals as either content-oriented learning (e.g. comprehension of company policies, procedures, and product knowledge), or experience-oriented learning (e.g. the performance of specific manual tasks, or the acquisition of interpersonal skills such as, customer service techniques and sales presentations). Experiential learning is a “process whereby knowledge is created through transformation of experiences” (Kolb, 1994). It is a non-direct teaching style in which the “instructor delegates, consults, and facilitates” (Shields, 1997). The process positions students as active collaborators in their own learning, as opposed to passive recipients of knowledge (Bobbitt, Inks, Kemp & Mayo, 2000; Saunders, 1997).

Whereas organizations often conduct each type of training separately, in some cases, they do combine both learning modalities in the same program. For example, a company might
conduct a training exercise where employees learn about its product and service offerings (features, benefits, applications etc.); then they engage in a role-playing exercise where they apply their newly acquired skills.

Within the corporate sector, there are three primary methods of providing both content and experience instruction: classroom/seminar, on-the-job coaching, and electronic learning (e-learning). Classroom-based instruction combined with some on-the-job coaching has been for many decades the standard way to train employees – in 2007, 65% of formal corporate learning took place in a classroom (“2007 Industry,” 2007). However, the poor economic climate and heightened concerns about the high environmental costs of employee travel, coupled with the high (direct and indirect) cost associated with classroom-based instruction and a lack of time for detailed on-the-job instruction, has resulted in a movement toward alternative methods of instruction, including computer assisted learning.

**Computer Assisted Learning**

Computer assisted learning are self-contained learning materials and resources that can be used at the pace and convenience of the learner. They included stand-alone computer based training programs, materials and exercises, as well those that are accessed through the internet or an intranet, often referred to as “e-learning” (“E-learning,” 2005).
E-Learning

E-learning offers numerous advantages over classroom and on-the-job instruction; these include the ability to access training materials regardless of geographic location, a more flexible schedule, access to archived and recorded documents (including transcripts and live discussions), and training materials that can be posted online for convenient access. E-learning can also significantly reduce the amount of time required for training. By moving from a paper-based training program to an e-learning solution, for example, Delta Airlines reduced the duration of a six-hour course, to less than one hour. In addition to enhanced efficiency, the company also found the e-learning method to be more effective, due to a higher level of trainee engagement (Zimmerman, 2001). E-Learning can also contribute directly to the bottom line. By the beginning of the last decade, large corporations such as Unilever were producing an estimated $20 million in additional sales as a result of their e-learning initiatives (Strother, 2002). Finally, and importantly, e-learning directly facilitates assessment through ongoing benchmarking and metrics. Unlike traditional learning platforms in which assessment sometimes feels inflexible and unchanging, e-learning measurement can be ongoing and programmed as a more natural part of the process.

Analysts estimate the 2008 corporate e-learning market at $13.5 billion within the United States, and up to nearly $21 billion worldwide (Womble, 2008). Indeed, self-study e-learning and virtual classroom models now account for 30% of total formal training employers conduct (“2007 Industry,” 2007). Popular forms of e-learning include game-based systems, podcasts and
vodcasts, virtual communities, E-meetings, virtual learning communities and virtual role playing. We will briefly review each type.

**Game-Based Systems**

Game-based systems are customizable, individually paced, interactive games. They are particularly popular in the biotech and pharmaceutical industries. Game-based systems are popular for those seeking to learn a foreign language quickly. Programs such as the Tactical Language Training System (TLTS) promote language and cultural skills learning in an interactive, simulated game world where players practice their skills by engaging with non-player characters in a series of different virtual situations. While TLTS was originally developed for military application, its potential in business and general learning is well recognized. The program relies on the concept that the interactive format and the lively narratives and characters serve to sustain user interest in a “fun” way that is not always possible in traditional settings. The game interface allows users to connect and identify with their characters, thereby increasing motivation, reinforcing skills learned and enhancing the overall learning experience (Johnson et al, 2005).

Other language learning systems that incorporate games and virtual worlds have been developed in recent years, but experts caution that these systems cannot fully substitute for real-life cultural and linguistic exposure. Rather, the systems are used to form a “bridging apprenticeship” (Henderson et al, 2008), which serves to connect classroom theories with the real world context. Students practice their skills in the game world and are then better prepared for their real world tasks. Reports suggest that use of game-based systems format results in a knowledge transfer four times greater, and in knowledge retention ten times greater, than
traditional methods. The downside is that unless a company develops its own game, which can be expensive, the ability is limited to customize or tailor these “off-the-shelf” games for specific needs (“Totally Learning,” 2008).

Podcasting and Vodcasts

Podcasts and vodcasts (also called vcasts) are prerecorded audio programs (pod) and video clips (vod) that can downloaded from a website to personal computers and portable devices, such as cell phones and MP3 players. These formats give employees the flexibility to download and review material at a time and place convenient to them.

IBM is one organization that is experimenting with these formats; the company finds that employees respond better to a natural, conversational presentation than one that is scripted and formal. Accordingly, the company models its training podcasts after radio programs and its vodcasts imitate television quiz and talk show formats. Some employees are so motivated by these programs that they create and upload their own sales force training content to the IBM intranet. By January 2007, IBM offered more than 2,700 podcasts; its 340,000 employees worldwide collectively downloaded almost a million of these modules (Gronstedt, 2007). However, while podcasts and vodcasts can enhance content-based learning, due to their asymmetrical nature that does not allow for interaction, they are not suitable for experience-based learning.

E-meetings and Virtual Learning Communities

E-Meetings include web based conference calls and webinars. Participants have the ability to interact with each other, and can send and receive information in real time. An e-
meeting can cost as little as one fifth of a traditional on-site meeting (Cooney, 2007; “Learning Communities,” 2007). They are particularly popular with organizations that span numerous locations and time zones. This format helps to ensure a consistent standard of training, while it allows employees in different geographic locations to share their experiences and practices. The downside is that in cases with large groups of participants, communication with the instructor, and interaction with other participants may be limited to text. Furthermore, it may not be possible for all participants to see each other (via web cameras).

Virtual Learning Communities (VLC) often employ e-meetings to communicate and share information, but they are more comprehensive instruments that can include other tools such as videos, podcasts and other course materials which are posted online. The success of a VLC often relies on the input of a network of people, and it is this communal interaction that further contributes to the learning experience (“Learning communities,” 2009). This collaborative model of learning finds a basis in the work of Lave and Wenger (1991) who developed the theory of “communities of practice” to describe the importance that a community has in reinforcing individual behavior and practice. Garrison and Anderson (2003) suggest that a collaborative-networked learning environment that can support a wide range of multimedia technologies will result in active participation and engagement.

**Virtual Role Playing**

Experience-based learning obviously requires a far greater level of immersion than an organization can achieve with an asymmetrical “lecture” format such as podcasts or in some cases e-meetings where, depending on the size of the group and the method of communication,
interaction may be limited. Many companies rely on role-playing exercises to provide this higher level of engagement – particularly when they conduct sales training.

Traditional role-playing typically requires one or more flesh-and-blood actors to play the parts of physicians, consumers or other sales prospects; this is obviously a costly process. The logistical and financial requirements of these exercises are propelling some organizations to explore virtual role-playing environments instead. For more than a decade now virtual role playing has also proved effective in team-building exercises, where it can be difficult to gather all members of a team in one physical location. Virtual world environments provide a setting for team members to practice their group tasks in real time and navigate through the non-verbal and intangible cues of the team relationship in an environment that mimics the actual work process (Rickel & Johnson, 1999). For example, the IP company Global Crossing chose to conduct sales training online on its Web meeting and audio conferencing site. Feedback revealed that the majority of participants found the experience to be helpful. The company estimates that by using virtual technology it was able to save more than four hours of training per day, and approximately $300,000 a year in travel and associated expenses (Kleps, 2006).

Virtual Challenges

Despite all of the potential benefits it offers, e-learning is not without its pitfalls. The most notable shortcoming is that this technique permits only a limited amount of interaction. For example, many online courses only permit communication between the instructors and his students via email or text chatting. These methods can hinder discussion, and fail to offer the participants the opportunity to enhance their verbal and nonverbal communication skills.
There are also cultural differences that may hinder success. Some linguistically diverse regions, such as Canada or the Asia Pacific area, have experienced problems implementing one-size-fits-all e-learning products (Kelly, 2001). Jenny Yan, Director of Motorola University in China, suggests that one of the reasons e-learning has not caught on in China is because Chinese people generally prefer face-to-face communication (Rotwell, 2004). Furthermore, inconsistencies in technology or connection speeds can dilute the experience (Rasmusson, 2000). There is also the complaint that utilizing Web or e-learning systems at home to catch up or avoid missing work can encourage bad habits (“Learning Communities,” 2007).

In terms of sales training, the belief is that e-learning technologies should not completely replace live sales training. Many training experts believe that no matter how dynamic, online learning should be used in conjunction with a live instructor and not as a replacement (Agnvall, 2006; The University of Albertay Dundee, 2006; Zimmerman, 2001; Rasmusson, 2000). "Doing simulations just to do a simulation doesn't achieve anything [because] it's not the role playing that's so beneficial," observes one training professional. "The real learning happens in the debriefing session when participants can be introspective about their behavior, and the resulting impact on the process and end product. It's here where they translate the experience into real learning that will stick with them.”(Quoted in Musselwhite, 2006, p. 58).

Real, Virtual – or Both?

Many organizations are wrestling with the decision to migrate their programs to “new media” formats. This can be a highly-charged issue; it pits the traditionalists who believe
nothing can replace the “up close and personal” learning experience against the progressives who are eager to capitalize on the efficiencies a digital system offers.

We propose a simple compromise: A hybrid approach that matches learning objectives with the best delivery system to achieve those objectives. This hybrid model will allow trainers to have their cake and eat it too; they will be able to offer highly engaging experiences, while at the same time maximizing cost-efficiency and ease of assessment.

Table 2 illustrates that the real vs. virtual question is in fact four questions: In each quadrant, trainers need to identify the best match that will optimize content delivery. Our discussion now turns to the lower right quadrant, which represents the “brave new (virtual) world” of corporate Training.
Table 2. A Hybrid Approach to Corporate Training

<table>
<thead>
<tr>
<th>LEARNING FORMAT</th>
<th>CONTENT-ORIENTED</th>
<th>EXPERIENCE-ORIENTED</th>
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<tbody>
<tr>
<td>Physical (in-person) delivery</td>
<td>Classroom lecture</td>
<td>Traditional role-play</td>
</tr>
<tr>
<td>Virtual delivery</td>
<td>E-meeting</td>
<td>Virtual world</td>
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Corporate Training’s Next Step: Virtual Worlds

A virtual world is a 3D computer environment that graphically imitates visual spaces and where people are represented on the screen by an animated character/avatar. Virtual worlds include simulations that are played by one individual, or those where players have the ability to interact and work with other players from around the globe (Bainbridge 2007, p.472). Six characteristics define these worlds (“What is,” n.d., Wood, 2009).

1. Graphical user interface: Virtual worlds use 2D or 3D digital imagery to create realistic environments and user avatars. An avatar is an online digital persona that allows the user to navigate the virtual environment and interact with other virtual world participants (Wood, Solomon & Alan, 2008). The avatar often mimics the actual trainee’s
appearance, but in reality, it can take on virtually any form the user desires. For example, in a role-play exercise one of the avatars can look like a potential customer.

2. Shared space: Virtual worlds have the ability accommodate tens of thousands of people in-world, at the same time. Each world is composed of scores of small regions - parcels of virtual real estate, similar to plots of land. Each region can usually host 40-60 avatars simultaneously. Trainees can log in from any location around the world to participate in the training exercise. Being able to see the digital representation of other people creates *telepresence* (the feeling of being there), but even more powerfully a feeling of *co-presence* (the sense of being there together) (Wood, Solomon & Alan, 2008).

3. Interactivity: In a virtual world, the user can alter, develop, build, or even submit customized content to the environment. The platform can be easily calibrated to reflect real world environments. A bank employee practicing customer service skills can do so inside a virtual replica of a bank, while a pharmaceutical sales trainee can make a sales call to a virtual doctor’s office.

4. Immediacy: As in the real world, in a virtual world all interactions take place in real time. There is little to no lag effect. Communication via text messaging or voice chat (typically via Skype or similar means) is instantaneous.

5. Persistence: When the last day is over in a physical delivery-training program, typically that is it. However, like the Web a virtual world never closes. It continues regardless of whether an individual trainee user is logged-in or not. These environments are similar to other e-learning technologies in their ability to provide continuous access to course
content. This modality fits well into the mind of the Millennial–always connected, always able to access information, operating on his/her own time.

6. Socialization/Community: A virtual world is a digital community: a group of individuals that connect and interact online for the purpose of personal and shared goals. They develop vivid and enduring personas, strong connectedness, and a sense of shared community. Whereas many online (and offline) courses employ a variety of popular Web 2.0 technologies such as wikis, blogs and podcasts, they still largely rely on email or text chatting to let teachers and students communicate. Despite this ability, students often feel they are “out there” on their own. In contrast, virtual worlds offer rich visual interfaces, visual representation of each individual (avatars), real-time text, and audio communication. These elements foster an increased sense of community among students that replaces the feeling of isolation many e-learners experience (Childress & Braswell 2006).

Current Virtual World Platforms

Second Life (www.secondlife.com) is the most widely used shared platform in this emerging space. It offers a parallel economy and an open-source model that permits users to retain the content (and IP) they create on their “islands.” We can classify Second Life users as follows:

1. Individuals who enter these worlds to interact and socialize with others.

2. Entrepreneurs who use Second Life to test-market real world products, or to create and sell (for a profit) virtual items to other Second Life residents.
3. Not-for-profits that promote their causes to the digital generation.

4. Educational institutions that use these environments to enhance traditional classroom teaching.

5. Corporations that employ Second Life as a promotional tool, an alternative product, and service delivery system, or as a platform to conduct training.

(Wood, 2009)

IBM is an enthusiastic proponent of Second Life. The company holds several hundred meetings a year on its network of islands. The CEO addressed the company’s employees globally in a Second Life event. One of the company’s HR programs that it calls Fresh Blue orients new Chinese staff to its corporate culture. It encourages staff to meet senior executives while flying around in a virtual space (Hatch, 2007).

Second Life is a public world; it is accessible to anyone with a computer, internet access and a reasonably sophisticated video card. This capability cuts both ways: While ease of entry promotes diversity of experiences, the open environment also creates security concerns for companies. Start-ups such as Qwaq Inc., Multiverse Network Inc., and Rivers Run Red are showing off technology that offers companies the equivalent of a private "workspace" -- simulated three-dimensional rooms that allow employees to meet as avatars, view presentations, and conduct other business. Sun Microsystems Inc. built a simulated building called MPK20 that employees of the computer maker can use to collaborate. Sun teams from around the world attend simulated meetings, at which their avatars may view presentations and videos and hold discussions. One of the project’s managers observes, “The biggest value of MPK20 is
stimulating the kind of collaboration that comes from chance encounters, like those employees might have in a real hallway” (quoted in Clark, 2008).

Several startup companies now develop private virtual training environments. For example, Forterra Systems (www.forterrainc.com) specializes in creating private secure virtual environments for the military and the health care industry. Tandem Learning (www.tandem-learning.com) offers a similar service to the health care and pharmaceutical industries. ProtonMedia (www.protonmedia.com) also offers custom virtual world courseware for pharmaceutical, medical devices, financial services, and technology industries.

Virtual Opportunities

At this point there is only a small body of published research that examines the use of virtual worlds for instructional purposes. This literature largely originates from the world of academia. In particular, we can find ongoing dialogues in fields including medical and health education (Kamel, Boulos & Hetherington, 2007; Scott, 2007; Skiba, 2007); foreign languages (Svensson, 2003); English composition; education pedagogy (“Real Learning in a Virtual World,” 2006); scientific research (Bainbridge, 2007); library services (Swanson, 2007) and business studies (Wood, Wetsch, Solomon & Hudson, 2009; Wood, Solomon & Alan, 2008).

Reports from these fields strongly suggest that the game-based learning opportunities in virtual worlds offer great educational promise (Kamel, Boulos & Hetherington, 2007). For example, the illusion of being physically present with other students (via their avatars) is a positive development for teaching and learning as it facilitates collaboration, promotes greater reflection, and encourages conversation much like one would experience face-to-face, so that
learning is once again a shared experience (Cheal, 2007; Kirkup, 2001; Wagner, 2007). Virtual environments thus offer great potential to employ experiential learning techniques in a timely and cost-efficient manner. By immersing students in a virtual environment with others, the learning process is enhanced as learners are challenged to be creative in their problem-solving and to engage in risky decisions; perhaps even behaviors that they may not be comfortable performing in real life. For example, a new pharmaceutical sales trainee who may be intimidated upon encountering a flesh-and-blood (and often time-pressed and curt) physician, may summon the courage to take a more assertive tone during a virtual sales call.

**Virtual Challenges**

However, like any new technology, virtual world instruction poses challenges. Interestingly, many of these challenges are people-based rather than technology-based. For example, many instructors simply don’t understand the technology well enough to know when and how to use it most efficiently. As a result, for some there is a tendency to continue using the same instructional techniques that they have always used. However, studies such as the 2001 ASTD-Masie which explored the learning preferences of over 700 trainees indicated a growing number of corporate trainees actually prefer e-learning to in-classroom training (Strother, 2002). Corporations therefore must find a way to blend the two.

In general, past research supports the notion that most instructors simply teach the way they learned as students; they rely on the instructional techniques with which they are most familiar such as lectures and manuals (Stitt-Gohdes, 2001). Traditional instructors are, not surprisingly, often skeptical of the value and legitimacy of some new technologies, particularly
those that at first glance appear more directed toward entertainment than training or education. And, they may be reluctant to take the risk or expend the effort required to master a new medium, if they believe their current teaching methods achieve results. Indeed, just because something is “new” does not necessarily make it better. In some contexts, the traditional classroom lecture accompanied by Power Point notes may be an efficient way to present factual information and may appeal to learning styles of other generations (e.g. Baby Boomers). All things equal however, this static approach is incongruent with the more immersive learning style of Gen Y.

A reluctance to change may or may not be justified. Research indicates the brains of Millennial teenagers seem to develop differently than their Boomer and Gen-X counterparts. In particular, an early exposure to digital technologies enables them to respond quicker to unexpected stimuli as well as endowing them with a different set of cognitive skills. The Millennial mind may therefore be physiologically different from that of parents and older siblings (Prensky, 2001), thus widening the gap of shared experience between these generations even more. Nonetheless, the inexorable generational march means that over time we can also expect younger trainers who will be equally at home with new platforms to enter the scene. The lack of understanding of how the technology works undoubtedly creates a barrier that trainers must overcome. This potentially steep learning curve exists for both the student and the instructor. To help students up the learning curve, instructors need to create “help” resources and hold orientation sessions in-world prior to the beginning of the program.

As all instructors can attest, the first time you conduct a new training course, or employ new technology, the amount of time that you need to dedicate to preparation grows, often
exponentially. Lessons need to be well prepared if they are to work properly, and carefully structured exercises are the key to success. Instructors should also resist the temptation to introduce too much too fast. As to how to bring instructors themselves up to a satisfying comfort level with the approach, train-the-trainer programs are essential. These should use the exact same technologies to immerse the instructor as will apply to training the students. It is helpful if some of these master trainers are themselves drawn from the younger generation, as part of being successful in training is to understand the mindset of the trainees, and not just the technology of the delivery.

Some instructors will argue that no matter how well designed the virtual experience it cannot offer the same benefits as a real life experience, primarily because it is not “real.” However, assessments of these experiences to date indicate that in virtual worlds “…users seem willing to suspend disbelief and relate to virtual reality as if it were authentic reality” (Nebolsky, Yee, Petrushin & Gershman, 2005, p.33). Furthermore, it appears that workers from all generations are at an increasing rate adopting the Millennial learning preferences (Dede, 2004). The computer programs, technologies, and team interaction that they employ on a daily basis may be behind this shift; but whatever the cause, the growing adoption of this learning style will serve to help facilitate cohesive training programs in a demographically varied corporate world.

**A Hybrid Scenario: Pharmaceutical Sales Training**

In the first year alone a typical pharmaceutical company spends a significant amount of money to train a new sales representative (“Vital training,” 2008). Therefore, it should come as no surprise that the pharmaceutical industry is eager to identify ways to reduce training expenses.
As one of the early adopters of e-learning, these companies were quick to realize the benefits of nontraditional delivery methods. Capitalizing on recent college graduates desire to balance any time spent on lecture with equal time spent on interactive, technology rich activities these same companies are exploring corporate education in virtual environments (Roberts, 2005). Novartis and Johnson & Johnson are working with virtual world developer Proton Media (www.protonmedia.com) to create virtual training programs, and Glaxo Smith Kline is exploring possibilities in Second Life (Donahue, 2007).

Referring back to Table 2, which showed the four-quadrant hybrid approach to corporate training, let us consider how a pharmaceutical sales firm might implement the chapter’s suggestions. First, who are pharmaceutical firms hiring today for sales jobs? The answer: almost exclusively Millennials! And what are the main components of a pharmaceutical rep’s job? Among the key roles are:

- Building professional relationships with physicians in order to support the firm’s brands and products, and to supply product knowledge and samples
- Calling on pharmacies and drug wholesalers to ensure that the supply chain is operating effectively
- Continually staying on top of new medications of their own and of competitors, as well as new uses of existing medications
- Providing support of customers in their community through special local seminars, and participating in company-sponsored CME (continuing medical education) events on a regional or national basis.
These activities lend themselves well to a hybrid approach to training. However, it is important to keep in mind that not all trainees (in this case pharmaceutical sales representatives) will be Millennials, or even if they are, that they will all embrace virtual worlds with the same level of enthusiasm. As such, it is important for instructors to adopt a cross-generational approach to learning. A hybrid approach does this by offering a variety of delivery styles to appeal to a variety of learning styles. Let us consider how a firm can employ each of the four boxes of the matrix (see Table 3).

1. Content-Oriented/Physical (In-Person) Delivery

Gathering representatives together physically for information sharing and networking can be particularly important at three junctures. First, a classroom-style training scenario is probably cost-effective upon initial hire of a representative. It facilitates socialization and enables the new hire to develop a network of mentors and comrades by pulling representatives into a home-office. Second, we recommend this be repeated annually – likely through some sort of annual meeting – in order to maintain a modicum of personal touch, and especially to allow for any new hires during the prior year to interact directly with the old hands. Finally, when the organization launches a major new product or other initiative, there is no substitute for the fanfare and excitement of a good old-fashioned sales meeting rally as a launch vehicle.

2. Content-Oriented/Virtual Delivery

Beyond the three “main event” scenarios described above, most of the content part of a representative’s training should be handled by e-meetings, or simply by Web-driven personal communication and access. In particular, the concept of e-mentoring – an ongoing one-on-
one training and development relationship between a newer sales representative and an assigned seasoned mentor representative – is an ideal application. Interestingly, in the long run sometimes the tables are turned in this context such that the most senior representatives that are in need of content retooling, yet are timid about virtual approaches, end up mentored by representatives of midrange experience that are very comfortable with the virtual approach. Retooling very senior representatives can be a real training challenge for pharmaceutical companies both due to their generational reluctance to embrace technology and a general tendency to be locked into sales approaches that made them successful in the past. Overall, traditional face-to-face content mentoring is expensive and cumbersome compared to virtual approaches, thus firms must be facilitative of virtual delivery both in cases of newer and very senior representatives. Pharmaceutical representatives rely heavily on their laptops when they call upon physicians, and physicians rely heavily on the representatives for updates on drug applications and other new developments. Integrating the representatives’ content training through virtual approaches that trainers can translated visually saves a lot of time and ensures better accuracy of communication of sensitive drug information.

3. Experience-Oriented/Physical (In-Person Delivery)

The first training experience of the representative will be in the initial home-office period referred to above. The content-oriented portion can be delivered – at least in part – through traditional classroom lecture and discussion. The experiential aspect, though, is best delivered through in-person role-play exercises in which trainers simulate common rep/physician scenarios, and then vary the details so that the new representatives can get used
to the sort of nuances they will encounter in the field. The introductory portion of this training is best handled in person, because: (a) much of what is learned is completely new to the representatives, and trouble in the field often arises from nuances; and (b) there’s no substitute early in the process for a human sales trainer, who is there to intercede just at the right moment, to assure a novice representative that he/she is going to make it!

Notwithstanding their fluency with advanced technology, Millennial learners still view their interaction with committed and expert teachers as highly important to the success of their learning (Roberts, 2005). We recommend that during these initial training days, the firm begin to wean representatives slowly to a virtual world approach, so that at the end of a week or two of initial home office training, representatives are familiar with how it works, and have a schedule for the ongoing training to-come via virtual means. Subsequently, when representatives return for annual sales meetings or sporadic new product launch meetings, it will behoove the firm to reinforce the virtual approach to experiential training by delivering all or most of that type of training by virtual means.

4. Experience-Oriented/Virtual Delivery

Essentially, all of the ongoing training on experiential aspects of the sales role should be handled virtually. The firm can accomplish this by setting up realistic virtual environment that simulate physicians’ offices, pharmacies, informational seminars, and other relevant encounters in which a representative works (see Figure 1). In pharmaceutical sales there is a never-ending stream of reasons why representatives must interact with their clients and channel partners one-on–one. Many of these deal with client education, product usage modification, competitive product clarification, and putting out fires in the channel. The
ongoing experience-oriented aspects of pharmaceutical representative sales training require customization, and must be engaging and fresh. A virtual world approach is cost-effective; it also captures representatives “where they live” as Millennials – in technology.

Table 3. A Hybrid Approach to Corporate Training:

The Pharmaceutical Sales Training Scenario

<table>
<thead>
<tr>
<th>LEARNING OBJECTIVE</th>
<th>LEARNING FORMAT</th>
<th>CONTENT-ORIENTED</th>
<th>EXPERIENCE-ORIENTED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Physical (in-person) delivery</td>
<td>CLASSROOM LECTURE</td>
<td>TRADITIONAL ROLE-PLAY</td>
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<td></td>
<td></td>
<td>Drug education and training</td>
<td>Detailing preparation</td>
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<tr>
<td></td>
<td>Virtual delivery</td>
<td>E-MEETING</td>
<td>VIRTUAL WORLD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Staying informed about new</td>
<td>Modeling sales calls</td>
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<td>products</td>
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Conclusion

As a new breed of worker enters the corporate world, they bring with them a set of expectations about their work environment. One of these expectations relates to the use of technology. The Millenial worker not only excels in the use of technology, but also thrives in technology-based learning environments. To cater to this, corporations the world over need to continue not only to explore how existing technologies, such as wikis and podcasts can be employed, but also how emerging interactive technologies can be utilized to provide a more engaging and robust instructional experience – one that meets the expectations of Millenials. As virtual worlds continue to grow, both in membership numbers and corporate involvement, it is only a matter of time before we see more corporate training being conducted in these environments. Indeed, analysts predict that by 2011, 80 percent of active internet users will be members of at least one virtual world, and by 2012, 70 percent of organizations will establish their own private virtual worlds (Cavall, 2008; “Virtual Great Enters,” 2008).

Still, it is unlikely that virtual worlds will totally replace the real world classroom for all forms of training. Instead, a hybrid approach incorporating real and virtual world training is a more realistic goal -- at least in the short term. For those innovative companies that do decide to
embrace this new technology, the opportunities it presents and the benefits it affords are virtually endless.
References


http://nkilkenny.wordpress.com/2006/08/30/generational-learning-styles-and-methods


Zimmerman, E. (2001). Better training is just a click away. Workforce, 80(1), 36.
Key Terms

**Experiential learning:** Learning as a result of direct experience.

**E-learning:** The delivery of education and training through electronic means.

**Game-based systems:** Customizable, individually paced, interactive games.

**Pod-casts:** Prerecorded audio casts that can be downloaded to a personal computer or portable electronic device.

**Vod-casts:** Prerecorded video clips that can be downloaded to a personal computer or portable electronic device.

**Virtual learning community:** A network of people who interact through online technologies with the purpose of sharing information and enhancing learning.

**Virtual Word:** A 3D computer mediated environments that graphically imitates virtual spaces and people.

**Avatar:** An online digital persona.