



Cornell University
ILR School

Cornell University ILR School
DigitalCommons@ILR

International Publications

Key Workplace Documents

11-2010

E-Learning and the Workplace

Olivier Serrat
Asian Development Bank

Follow this and additional works at: <http://digitalcommons.ilr.cornell.edu/intl>

This Article is brought to you for free and open access by the Key Workplace Documents at DigitalCommons@ILR. It has been accepted for inclusion in International Publications by an authorized administrator of DigitalCommons@ILR. For more information, please contact hlmdigital@cornell.edu.

E-Learning and the Workplace

Abstract

{Excerpt} Many work arrangements discourage learning. In organizations, classroom instruction is obviously not the most efficient method. However, if e-learning is to justify the publicity that surrounds it, there is a great need to understand its organizational environment and to evolve design principles.

E-learning, taken to mean all forms of electronically supported learning and teaching, entered formal higher education in the mid- to late 1990s, riding on the wave of interest in the knowledge economy (and thereafter the learning organization). (This is not to say that the experience has been an unqualified success: early attempts in universities, up to the mid-2000s, miscarried because e-learning ventures somehow failed to appreciate that education is not just a business, students are not mere consumers, and obtaining a degree is not quite the same as shopping online.) Currently, because the delivery of content through electronic information and communications technologies expands the realm of how, where, and when learners can engage, e-learning is also being mooted as a cheap and effective (just-in-time) way to provide private and public sector organizations the every-day learning opportunities they need to improve organizational outcomes.

Organizations have a vested interest in attracting, engaging, and retaining talent; but they also need to help personnel perform at the top of their game after they are hired. What is more, because the shelf life of information is shorter and forces each one to constantly take on new roles, the rules of the game change daily. When it comes to learning, what is good for personnel is good for their organization. Training programs that are well managed can have a measurable effect. (That might be gauged at several levels, namely, reaction and satisfaction, learning results, on-the-job application, business impact, intangible benefits, and return on investment.) Since the need and associated rhetoric of flexible learning has been strongest in adult and continuous education, and explains in large part the attention given to communities and networks of practice, in recent years e-learning at the workplace augurs well.

Keywords

Asian Development Bank, ADB, poverty, economic growth, sustainability, development

Comments

Suggested Citation

Serrat, O. (2010). *E-learning and the workplace*. Washington, DC: Asian Development Bank.

Required Publisher's Statement

This article was first published by the Asian Development Bank (www.adb.org)

E-Learning and the Workplace

By Olivier Serrat

Many work arrangements discourage learning. In organizations, classroom instruction is obviously not the most efficient method. However, if e-learning is to justify the publicity that surrounds it, there is a great need to understand its organizational environment and to evolve design principles.

Geneses of Lifelong Learning

The Talmud enjoins well: Do not confine your children to your own learning, for they were born of another time. Then again, the flipside these days is that parents themselves must cross the generational divide and embark on lifelong learning.¹ It is not news that Information-Age, digital technology now pervades our lives and occupations; but it is less often remarked that it has also begun to change the ways we (must) learn from the cradle to the grave.

E-learning,² taken to mean all forms of electronically supported learning and teaching, entered formal higher education in the mid- to late 1990s, riding on the wave of interest in the knowledge economy (and thereafter the learning organization).³ (This is not to say that the experience has been an unqualified success: early attempts in universities, up to the mid-2000s, miscarried because e-learning ventures somehow failed to appreciate that education is not just a business, students are not mere consumers, and obtaining a degree is not quite the



¹ With the development of self-consciously adult education from the late 1920s, courtesy of Basil Yeaxlee, came the view that education should be lifelong. In 1972, to promote the vision of a learning society, the United Nations Educational, Scientific and Cultural Organization affirmed that society at large should become a learning resource for each individual; the emphasis should be on learning to learn (and not on matching schooling to the needs of the labor market). See Edgar Faure et al. 1972. *Learning to Be*. UNESCO. Lifelong learning is now considered the continuous, voluntary, and self-motivated use of formal, nonformal, and informal learning opportunities throughout people's lives to develop and improve the knowledge, skills, and competencies they need for professional, personal, social, or civic reasons. (In reality, the boundaries or relationships between formal, nonformal, and informal learning can only be understood within particular historical, social, political, and economic contexts; the three frequently overlap. The same applies to terms such as "learner" and "learning," which mean different things in different contexts. Certainly, learning is a process, not a product; more precisely, it is the dialectical interplay of process and product.)

² Synonyms include computer-, internet-, and web-based training.

³ Learning, the cognitive process of coming to understand things and developing increased capacities to do what one wants or needs to do, is obviously as old as mankind. It is equally evident, however, that the advent of e-learning owes to the ubiquity of the internet and related technologies as well as computer hardware from the mid-1990s.

same as shopping online.)⁴ Currently, because the delivery of content through electronic information and communications technologies expands the realm of how, where, and when learners can engage, e-learning is also being mooted as a cheap and effective (just-in-time) way to provide private and public sector organizations the every-day learning opportunities they need to improve organizational outcomes.

Learning is not a product of schooling but the lifelong attempt to acquire it.

—Albert Einstein

Organizations have a vested interest in attracting, engaging, and retaining talent; but they also need to help personnel perform at the top of their game after they are hired. What is more, because the shelf life of information is shorter and forces each one to constantly take on new roles, the rules of the game change daily. When it comes to learning, what is good for personnel is good for their organization. Training programs that are well managed can have a measurable effect.⁵ (That might be gauged at several levels, namely, reaction and satisfaction, learning

We now accept the fact that learning is a lifelong process of keeping abreast of change. And the most pressing task is to teach people how to learn.

—Peter Drucker

results, on-the-job application, business impact, intangible benefits, and return on investment.)⁶ Since the need and associated rhetoric of flexible learning has been strongest in adult and continuous education, and explains in large part the attention given to communities and networks of practice, in recent years e-learning at the workplace augurs well.⁷

The New Learning Paradigm

Certainly, many work arrangements discourage learning— never mind lifelong learning—and any attempt to overcome roadblocks is welcome.⁸ Many organizations have a habit of herding learners, but not senior management, in a room—sometimes for 8 hours a day, 5 days a week, and instructing the same generic, standardized training programs—as if each had identical prior knowledge, learning styles, and knowledge needs.⁹ This does little to encourage indispensable interactivity, taken to be the active involvement, participation, and engagement of an individual in the learning process. (Good interaction and the motivation it sparks do not just happen—these have to be designed.)¹⁰

Classroom training is no longer the most efficient training method. (It definitely cannot be when increasingly dispersed personnel must be brought out of their offices from multiple locations, at high direct and indirect

⁴ The main reason for unsuccessful e-learning initiatives has been poor learner-orientation, as evidenced by lack of personalization, collaboration, and interactivity. Reiterating John Naisbitt's nearly 30-year old advice, one of the keys to the success of technology is to marry "high tech" with "high touch."

⁵ The challenge is that, much as regular deposits and the power of interest will only yield a major change in a bank account over time, positive results hinge on permanent investment and support.

⁶ Return on investment is the holy grail of e-learning analytics. It depends on business needs, shaped by problems and opportunities, which differ greatly among organizations. If a business need is quantifiable, then the rate of return will be a function of the net benefits from the learning solution over its costs. (Note that calculating return on investment may not be appropriate for all learning solutions.)

⁷ Some see the day, glimmers of which are already apparent, when (i) the responsibility for e-learning development will decentralize across the organization, (ii) e-learning will shift from instructivism to constructivism and connectivism, (iii) staff will collaborate and share knowledge, (iv) learning will be fully networked, (v) m-learning, that is, any sort of learning that happens when the learner takes advantage of opportunities offered by mobile technologies, will be popular; and (vi) e-learning will be smart. See Ryan Tracey. 2010. *Learning in the Corporate Sector*. Available: <http://ryan2point0.wordpress.com/2009/03/24/workplace-learning-in-10-years/>. Others suspect that the e will eventually disappear.

⁸ See, for instance, ADB. 2009. *Overcoming Roadblocks to Learning*. Manila. Available: www.adb.org/documents/information/knowledge-solutions/overcoming-roadblocks-to-learning.pdf

⁹ This practice owes to the still dominant view that learning is a product. Being a learner in organizations where this paradigm has adherents can be tricky: there, a learner is someone who has yet to acquire the requisite knowledge, skills, and competencies for carrying out the work he or she was recruited to perform; a learner in such a workplace has a deficit and consequently has less authority and influence. (He or she must therefore stop being a "learner" as quickly as possible.) This pervasive view of learning makes two debilitating assumptions: first, that the products of learning must be stable over time; second, that the learning of different learners is identical. Rather, learning is a process that changes both the learner and the environment.

¹⁰ For reference, a taxonomy of levels of interactivity identifies three, ranging from reactive to coactive to proactive. Another gauges interaction from passive, limited, complex, and real-time.

costs, to attend classes.) No one claims that corporate universities¹¹ are the be-all and end-all of training. (They are better described as a state of mind or, if that is deemed too ambitious, a system of interest.) To begin, they demand e-literacy.¹² But, given that, they can build in learning organizations what Jeanne Meister¹³ calls the 3 C's of Corporate Citizenship, Contextual Framework, and Core Workplace Competencies. The new learning paradigm emphasizes the following critical issues:

- a shift from training to self-responsible learning;
- self-organized learning, based on metacognitive learning strategies for the development of lifelong learning skills;
- process-oriented learning, focusing on learning to learn, not product-oriented learning;
- highly flexible, personalized, and individualized learning based on different learning types and personal preferences); and
- individual- and team-oriented methods of collaborative learning based on constructive and connective learning theories using communities of learners, experts, facilitators, coaches.¹⁴

Notwithstanding, the lessons of past experience in e-learning—at least in higher education since documented studies of the labor market are still sparse—must be heeded: to create sustainable enterprise, corporate universities (and learning and development units in human resource divisions) must eschew quick-fix e-learning solutions, commonly masquerading as technology-driven learning management systems¹⁵ that automate the administration, tracking, and reporting of training events but ignore the organizational learning environment.

For effective structuring and administration of e-learning solutions, organizations must develop vibrant and committed formal learning organizational cultures and supporting virtual and traditional infrastructure that grow customized training programs, flexibly tailored to the needs of personnel, using good practices from both inside and outside. (Increasingly, such responsibilities are ascribed to chief learning officers.)¹⁶ To note, given the evolutionary nature of e-learning and its innate diversity, articulating a viable one-dimensional universal solution is impossible as the table below illustrates. E-learning is an immature but quite dynamic enterprise characterized by established brand names, continuing convergence, market consolidation, and requirements for scalable business models on the one hand and modularization and standardization, demand for one-stop shopping and added-value services, the establishment of e-learning partnerships and strategic alliances, and the

¹¹ A corporate university is any centralized educational entity or initiative that aims, frequently under the purview of a human resource division, to assist a parent organization achieve its goals by conducting activities that foster individual and organizational learning. In both large and small organizations, the usual business advantages vaunted (via learning management systems) are (i) easy accessibility 24 hours a day, 7 days a week; (ii) just-in-time training that is personalized, modular, collaborative, measured, and within reach across multiple channels; (iii) reduced time away from the job, (iv) built-in participant enrollment and course management; (v) consistent and accurate messages; (vi) centralized knowledge management; and (vii) significant cost savings. To be sure, corporate universities are not entirely new: General Motors founded the General Motors Institute as long ago as 1926, renaming it from a 1919 venture. In the late 1950s, General Electric established the Management Development Institute and Walt Disney opened Disney University. Some surmise that, if growth keeps, corporate universities will soon outnumber traditional universities. Most organizations do not at the start set out to form a corporate university: the fact is that they often originally intend to become a learning organization; only later—never for some—do they enter the critical stage of repositioning their development in a more specifically strategic context, namely, that of a corporate university.

¹² E-literacy is the ability to use information and communications technologies, in this particular instance, to learn and transfer knowledge.

¹³ Jeanne Meister. 1998. *Corporate Universities: Lessons in Building a World-Class Workforce*. McGraw-Hill.

¹⁴ Viewing learning as a process has intuitive advantages: after all, work practices are processes, the features of which are better captured by constructive and connective, rather than by acquisition (or even participation), metaphors.

¹⁵ Learning management systems are software applications for administration, documentation, tracking, and reporting of training programs, including training material and classroom and online events. Robust systems (i) centralize and automate administration, (ii) create and deliver content quickly, (iii) bring training initiatives together on a scalable web-based platform, (iv) support standards, (v) offer self-guided services, (vi) help learners personalize content and enable knowledge reuse, and (vii) display software portability. (Most are web-based and rely on a database as back-end.) Examples of large-scale software vendors are Oracle and SAP.

¹⁶ In the era of talent management, as the value of traditional learning diminishes and personnel relies ever more on learning through online references, communities and networks of practice, and online performance support tools, the position of chief learning officer has been introduced in organizations. It continues to evolve and expand to make continuous learning a driver of sustainable competitive advantage through enhanced relationships with functions and departments associated with strategic planning, human resource management, knowledge and information management, and corporate communications. The ambitious terms of reference of a chief learning officer can be to (i) facilitate learning and change, which involves establishing learning governance structures and managing cultural transformation and maintenance; (ii) improve individual, team, and organizational effectiveness through integrated use of better training programs (including e-learning), talent development, knowledge generation and sharing practices, business processes, internal and external communications, enterprise-wide learning and collaboration platforms, branding, decentralized capabilities to create and transfer knowledge, and performance-raising interventions; and (iii) support corporate strategy through research and experimentation.

emergence of new learning models that involve communities and networks of practice on the other. If most agree that e-learning should not be seen as isolated events taking place in parallel to an organization's practice but, instead, as an integrated part of the organization's environment, context, relationships, and knowledge, it is assuredly neither easy nor cheap.¹⁷ However, design principles can help.

An organization's ability to learn, and translate that learning into action rapidly, is the ultimate competitive advantage.
—Jack Welch

Table: Three Generations of E-Learning

Characteristics	E-Learning 1.0	E-Learning 1.3	E-Learning 2.0
Main components	<ul style="list-style-type: none"> Courseware Learning management systems Authoring tools 	<ul style="list-style-type: none"> Reference hybrids Learning management systems Rapid authoring tools 	<ul style="list-style-type: none"> Wikis Social networking and bookmarking tools Blogs Add-ins Mash-ups
Ownership	Top-down, one-way	Top-down, collaborative	Bottom-up, learner-driven, peer learning
Development time	Long	Rapid	None
Content size	60 minutes +	15 minutes	1 minute
Access time	Before work	In-between work	During work
Virtual meetings	Class	Introduction, office hours	Peers, experts
Delivery	At one time	In many pieces	When you need it
Content access	Learning management systems	E-mail, intranet	Search, Really Simple Syndication feeds
Driver	Instructional designer	Learner	Worker
Content creator	Instructional designer	Subject matter expert	User

Note: E-Learning 1.3 is a label representing the generation of e-learning that has emerged in recent years, in which learning is developed more quickly and delivered in smaller chunks.

Source: Tony Karrer. 2007. *Understanding E-Learning 2.0*. The American Society for Training and Development. Available: www.astd.org/lc/2007/0707_karrer.htm

Organizational Learning Environments

An organizational learning environment is conditioned by the external environment, within which organizational context, inter- and intra-organizational relationships, and organizational knowledge interact. Usefully, Richard Dealtry¹⁸ has itemized the individual elements that, across functions and departments, constitute an intervention platform for strategic management of e-learning. The following draws from his work to share them.

¹⁷ The primary determinants of cost are the size of the content; level of interactivity; use of multimedia to combine different content forms, e.g., text, audio, still images, animation, video, and interactivity content forms; and tracking requirements.

¹⁸ Richard Dealtry. 2005. Configuring the Structure and Administration of Learning Management. *Journal of Workplace Learning*. Vol. 17, No. 7, pp. 467–477.

- **Corporate strategy.** The formulation of corporate strategy must elevate adult and continuous education as a foremost input to the development of organizational capability. Interpreting the organization's vision, mission, and goals in terms of learning needs across all major functions and departments has a strong bearing on sustainable competitive advantage and provides the foundation for detailed planning of and funding for learning.
- **Learning policy.** The provision of quality learning on demand drives organic individual and collective development. A learning policy would specify the goal to build a learning organization as well as the core values and objectives for that. The core values might, for instance, state that (i) an investment in staff learning is an investment in high organizational performance; (ii) learning, coaching, and mentoring are shared responsibilities; and (iii) equitable access to training opportunities is critical for renewal. The objectives could, for example, include (i) the creation of a learning culture that encourages learning, creativity and innovation, and the acquisition, transfer, and use of knowledge; and (ii) training programs that meet the needs of personnel. A learning charter would demonstrate commitment: learning charters are a touchstone against which provision and practice can be tested and a waymark with which to guide, monitor, and evaluate progress. First-level managers must participate in learning policy development: they should therefore be able to distinguish learning needs from current business-as-usual realities; they should have the skills to plan performance development in relation to the learning policy as it affects their activities. Moreover, learning performance management should play a greater role in direct reporting relationships.
- **Funding for learning.** The approach to funding for learning must move the financing of interventions out of the annual budgeting process and affirm learning as a major component of investment for organizational development. (This involves rigorous formulation of the business case for investments in human capital, the scheduling of resourcing, monitoring, and evaluation.) It must be based on a clear understanding of the relationship between an organization's intellectual capital¹⁹ and its place in the market.
- **Learning portfolio.** The learning portfolio must define the provision of internal and external, formal and informal training for technical, supervisory, and managerial development strands. Program curriculum development, timing, on-call infrastructure support, and the provision of distributed e-learning solutions must meet changing needs flexibly with quality content.
- **Personnel development.** The overt introduction of a learning component in the work of individuals injects a very different perspective on professional occupations. Changing psychological contracts in a positive way cannot be achieved simply by introducing an e-learning system. Hence, the alignment between an individual's desire to learn and an organization's learning requirements needs careful balancing.
- **Knowledge, skills, and competencies.** Most organizations have developed specifications of desired knowledge, skills, and competencies. Knowledge is a most critical organizational resource: making sure that knowledge workers have both the capability and the maximum number of opportunities to release their potential is a key objective of strategic learning management.
- **Talent development.** In a learning organization, the meaningful joint exploration of interest-based relationships, mutual learning needs, expectations, and working objectives is fundamental to the nurturing of talent once it is onboard. Personnel, especially top talent, quickly become actively disengaged, or at least not engaged, if they are not allowed to achieve.
- **Performance management.** Learning performance management has many different strands, involving monitoring and evaluation at individual and organizational levels. Learning about the dynamics of the external and internal organizational contexts and ensuring that first-level managers and personnel have the

In this age, which believes that there is a shortcut to everything, the greatest lesson to be learned is that the most difficult way is, in the long run, the easiest.

—Henry Miller

¹⁹ An organization's intellectual capital is human capital—the knowledge, skills, and competencies of personnel; structural capital—knowledge that has been transformed into strategies, structures, or routines; and relational capital—the relationships that an organization has with its clients, audiences, and partners and external environment.

decisional power and related capability to sustain high performance is a strategic imperative for success, if not survival, that senior and middle management must seek to act on.

Design Principles for E-Learning.

For sure, e-learning is not the key to organizational nirvana. The generative learning perspectives that must accompany its introduction—and with which training programs must converse—include continuous improvement strategies and methodologies; business process design and implementation; business process improvement tools; community and network of practice models; knowledge management systems and tools; specific training provisions; physical and virtual learning spaces and delivery channels; branding; cadres of skilled facilitators, process builders, and implementers; and recognition and rewards programs.²⁰

E-learning per se is not without challenges: it is a costly and time-consuming enterprise. Organizations must overcome three generic impediments to its introduction and continuing use: (i) the cost of developing (or purchasing) software applications at the onset, compounded by running costs once e-learning interventions are under way; (ii) (perceived) lack of time to devote to workplace learning and to formulate and maintain e-learning solutions; and (iii) content issues—quality content is not available on the market or is not suited for e-learning and must therefore be developed. Extensive research and careful planning will help circumscribe requirements and surmount these barriers.

To kick-start effective e-learning design, the simple questions that beg answers are: What objectives must the training satisfy? What is the audience for which the training is intended? Does the content already exist or must it be created? What technical limitations exist, if any? What data must be tracked to a learning management system? What interactivity level is applicable? What type of training is required? Is the e-learning solution part of a blended solution?²¹ How long should the training be?

Usefully, Andrew Brown and Bradley Voltz²² have determined that six elements, combining skills and tasks associated with lesson planning, instructional design, creative writing, and software specification, lie at the heart of e-learning design itself. They pertain to (i) activity—paying attention to the provision of a rich learning activity;²³ (ii) scenario—situating this activity within an interesting story line; (iii) feedback—providing meaningful opportunities for student reflection and third-party criticism; (iv) delivery—considering appropriate technologies for delivery; (v) context—ensuring that the design is suitable for the context in which it will be used; and (vi) impact—bearing in mind the personal, social, and environmental impact of the designed activity. If e-learning is to justify the publicity that now surrounds it, more efforts need to be devoted to explicating these.

Further Reading

ADB. 2009a. *Collaborating with Wikis*. Manila. Available: www.adb.org/documents/information/knowledge-solutions/collaborating-with-wikis.pdf

———. 2009b. *Learning and Development for Management*. Manila. Available: www.adb.org/documents/information/knowledge-solutions/learning-and-development-for-management.pdf

———. 2009c. *Coaching and Mentoring*. Manila. Available: www.adb.org/documents/information/knowledge-solutions/coaching-and-mentoring.pdf

———. 2009d. *Drawing Learning Charters*. Manila. Available: www.adb.org/documents/information/knowledge-solutions/drawing-learning-charters.pdf

———. 2009e. *A Primer on Organizational Learning*. Manila. Available: www.adb.org/documents/information/

²⁰ See Ian Campbell and Richard Dealtry. 2003. The New Generation of Corporate Universities—Co-Creating Sustainable Enterprise and Business Development Solutions. *Journal of Workplace Learning*. Vol. 15, No. 7/8, pp. 368–381.

²¹ Blended learning refers to the mixing of different learning environments. In the context of e-learning, it combines face-to-face classroom facilitation with remote, usually computer-mediated, activities and shorter classroom contact hours (reduced seat time).

²² Andrew Brown and Bradley Voltz. 2005. Elements of Effective E-Learning Design. *The International Review of Research in Open and Distance Learning*. Vol. 6, No. 1.

²³ Among others, a rich learning activity would support both individual reflection and collaborative knowledge building. It would integrate theoretical knowledge with the practical experience of participants to lead them, in real dialogue, collaboration, and knowledge exchange with different groups of people, to examine their work in the light of the conceptual tools provided and explain implicit knowledge. The orientation to problem solving would be progressive and integrate different forms of representation and different forms of learning activities, e.g., reading, writing, discussing, using metaphors, audio, visual, etc., with structured support and guidance at all phases of the learning process.

knowledge-solutions/primer-on-organizational-learning.pdf

Jeanne Meister. 1998. *Corporate Universities: Lessons in Building a World-Class Workforce*. McGraw-Hill.

For further information

Contact Olivier Serrat, Head of the Knowledge Management Center, Regional and Sustainable Development Department, Asian Development Bank (oserrat@adb.org).

.....
Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two thirds of the world's poor: 1.8 billion people who live on less than \$2 a day, with 903 million struggling on less than \$1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

.....
Knowledge Solutions are handy, quick reference guides to tools, methods, and approaches that propel development forward and enhance its effects. They are offered as resources to ADB staff. They may also appeal to the development community and people having interest in knowledge and learning.

.....
The views expressed in this publication are those of the author(s) and do not necessarily reflect the views and policies of the Asian Development Bank (ADB) or its Board of Governors or the governments they represent. ADB encourages printing or copying information exclusively for personal and noncommercial use with proper acknowledgment of ADB. Users are restricted from reselling, redistributing, or creating derivative works for commercial purposes without the express, written consent of ADB.

Asian Development Bank
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
Tel +63 2 632 4444
Fax +63 2 636 2444
knowledge@adb.org
www.adb.org/knowledgesolutions