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*Part One in a Three-Part Series on
The State of E-Learning*

The Significance of E-Learning *and* Organizational Transformation

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Over the next three months, the state of e-learning will be examined. For this month, a discussion about the strong relationship between e-learning and organizational culture and structure is presented. In February, an editorial will describe the impact of e-learning on diversity/globalization issues. For March, a third editorial on the commonalities between e-learning and organizational learning systems will be presented.

On the surface, these three discussions on the state of e-learning may not seem very important, but in fact, they are. They are significant for economic workforce development initiatives and for organizations seeking competitive advantages in the knowledge economy. For example, in states such as Michigan, effective use of e-learning is critical as its economic development depends on effective and efficient methods of training and re-training the employed, unemployed, under-employed and under-represented populations. Michigan is a state suffering from a long transition between manufacturing to service and knowledge sectors. Hoffman¹ describes the economists' view of the state, "They foresee Michigan losing more jobs than it gains through 2008, an eight-year stretch of sliding employment that's the longest in Michigan history since the Great Depression." (2006, State and Regional Section) Furthermore, understanding e-learning is also helpful to organizations in the public, private and non-profit sectors striving to establish the strategic importance of workforce development in relation to organizational growth and transformation and seeking information as to how to implement appealing e-learning options. The restructuring of organizational life is not an option, but rather an expectation of leaders, as Price² explains, "In today's business environment,

incremental improvement is seldom enough.” (2006, online) Van Wart³ describes this for the public sector as well, “Clearly it [the public sector] is changing in more fundamental ways than at any time in the last half century.”

The significance of e-learning and organizational transformation may seem like a strange combination of topics for this editorial. However, research is leading to congruency between these two topics in terms of learner control and organizational structure as well as corporate interactions and organizational culture. A review of the literature reveals that e-learning is a powerful venue that extends specific properties of learning environments to include the fostering of learner self-directedness, convenience, and access to technical and specialized resources and experts (Debela⁴, 2003; Donlevy⁵, 2005; Goettner⁶, 2000 & Hsiao⁷, 2007). Because of its unique properties Hartley⁸ states, “There are e-learning offerings in nearly every major business or organizational segment, as well as in nearly every learning role.” (2001, p. 24) Aldrich⁹ points out that e-learning has developed from hard-to-access, expensive, stand alone packages to “. . . a series of e-learning innovations that have reshaped the learning landscape.” (2006, p. 54) He further describes the evolution of support software from learning management to learning content management to open source and network-based options. These developments, coupled with the emergence of simulations and gaming, the redesign of portable/mobile communication tools and equipment, and enhanced multi-media capabilities, make e-learning attractive for learner participants and organizations. In higher education, the current popularity and projected growth of e-learning demonstrates the viability of this method of instructional delivery for graduate students. The Sloan Consortium¹⁰ (2005) reports that 65% of higher education institutions offering graduate programming provide e-learning options and that 56% of all higher education institutions include e-learning in strategic planning.

Grollman and Cannon¹¹ (2003) relate workplace productivity increases to the strategic use of e-learning applications for daily work and training functions because of its effectiveness and economy of scale. They state, “E-Learning [*sic*] combines improved computer capabilities (multimedia, browsers, databases, etc.), improved telecommunications infrastructures (networks, the Internet) and improved pedagogical techniques (instructional design) to improve training offerings cost-effectively.” (ibid, p. 45) Grollman and Cannon further note that the ability to contextualize learning through personalized assessment, individualized learner planning, participant interaction and corporate problem solving makes e-learning a natural and integrated part of the workplace--and less like pull-out training. When implemented correctly, e-learning is considered both effective and efficient with the potential to far exceed on-ground approaches (Alfred P. Sloan Foundation¹², 2004). Harrington¹³ notes, E-learning, if designed properly, can bring together valuable viewpoints and best practices of numerous subject-matter experts from a number of professional areas while providing the learning

experience to a student in the privacy of the home or office. Classroom training is usually limited to one instructor. (*Quality Progress*, 2003, p. 89).

Organizations are under tremendous expectations to conduct themselves very differently than in the past and e-learning venues offer characteristics congruent with such goals. Bryan and Joyce¹⁴ state, "Companies must change their organizational structures dramatically to unleash the power of their professionals and to capture the opportunities of today's economy." (2005, online) Defined as a critical behavior for the success of restructured organizations, self-direction relocates the loci of control from external sources, such as supervisors and policies, to the individual (Stewart, Carson, Cardy¹⁵, 1996). In modern e-learning environments, self-directedness is readily available to participants as described by Bell and Kozlowski¹⁶,

Perhaps the most frequently cited advantage of these emerging computer-based technologies, however, is that they allow learners to have considerable control over different aspects (e.g., content, sequence, pace) of their learning process. In the past, computer-based instruction was often used to reduce or eliminate trainees' control over various learning decisions (e.g., Tennyson, 1980, 1981). Today's advanced training technologies, however, provide individuals with an unprecedented degree of control over their learning. (2002, p. 267)

Since e-learning provides opportunities for self-direct learning, autonomy and empowerment, the ability to match e-learning with transformational efforts cannot be underestimated. Friedman¹⁷ elaborates, "The underlying structure of the global economy is shifting, bringing with it a bewildering array of unprecedented challenges that require a new kind of leadership." (2001, p. 21)

Hence, given the characteristics of the e-learning environment and its congruency with the goals of organizational restructuring, e-learning can be a helpful transformational tool. While the potential of effective e-learning for transformation is understood, it has not been unleashed yet. A recent report was published by Automation Alley, a non-profit organization in southeast Michigan, promoting, among other things, effective e-learning strategies in ways that contribute to economic growth and workforce readiness. Automation Alley conducted a study in 2004 of e-learning practices of 116 companies, in all sectors (automotive, technology, financial, training, education, miscellaneous) and all sizes (1-375,000 employees). Their report¹⁸ (2005) revealed that while e-learning is a cost-effective option, it is under-utilized and not used effectively. Over time, however, e-learning should become more strategic, as organizations understand the value of e-learner characteristics as a good match for organizational behavior desired when restructuring is of interest.

Beyond the context of individual learning in an organizational setting, the promise of e-learning is high in the context of current organizational cultural change phenomena. The need for effective e-learning

pedagogy and practice is prominent because it facilitates transformational organizational culture, a relevant issue of phenomena in restructuring of the environment, structures and work in current times. E-learning provides an appropriate tool for cultural transformation described by Peterson¹⁹ (2006) whereby a new definition of leadership in the global context of change is expected in regard to increasing inter-organizational cooperation while dealing with the pressures of real time decision making. E-learning does create virtual learning communities affordably; it does provide real time interaction with superior resource access, and it does offer hyper-pace capability.

The interactive nature of e-learning environments is an important attribute that can contribute to organizational transformation in all sectors. Most notably is the development of virtual communities known as communities of practice (CoPs) whose primary output is the building and sharing of knowledge through common problem identification and problem solution (Lesser & Prusak²⁰, 2000). These communities are open access, horizontally structured, social, and organic. They represent a powerful, yet informal, means of e-learning. Wenger and Snyder²¹ describe them, "CoPs transcend organizational divisions and hierarchies because the members want to get things done. Corporations would do well to pay attention to this resistance to hierarchies." (2000, p. 139) Research by Hall and Graham²² (2004) examined the dynamics of CoPs and identified the importance of participant incentives to share knowledge deeply as related to the degree of shared values. In other words, the culture surrounding CoPs affects their ability to move from individual learning to knowledge sharing to social capital development. Hence, while organic in nature, CoPs do require strategic approaches to increase their effectiveness.

Support for the cultural impact of e-learning communities can be found in higher education research as well. The Association for the Study of Higher Education's (2002) review²³ of this supports the development of e-learning communities through collaboration, development of protocols for self-regulation and identity formation with learning groups. Kanvosky and Or-bach²⁴ (2003) present an argument for the examination of e-learning tools in order to facilitate the interactive needs of the adult learner. Edwards and Hodge²⁵ (2003) compared learning experiences in different disciplines and report on the importance of providing social support and creating a community of learners for e-learning students. Because of the advantages to learners, the collaborative and interactive nature of learning and the use of constructivist pedagogy, e-learning methods can powerfully affect the organizational learning culture of institutions in that for both faculty and students the experience is different from traditional modes of teaching and learning (Distance Education Report²⁶, 2005). Organizations in all sectors can indeed benefit from the social learning structures e-learning creates. Professional e-learning communities facilitate interaction in ways that meet the emotional and social needs of adults. If these communities are congruent with organizational values and support systems, then the potential for enhancing culture is great. As a strategy for organizational development, e-learning is a viable and economical option. When e-learning is employed well, it offers learner-

participants autonomy through exposure to current and relevant content, individualized learning options, convenience of 24/7 access and immediate feedback. It provides organizations with the benefits of facilitating transformational experiences through customized, contextual and collaborative learning environments.



As organizations in all sectors address workforce issues related to effective knowledge management and training for the adult learner, e-learning venues will be increasingly relied upon. Most organizations understand the potential of e-learning, but often struggle with effective implementation. When e-learning is employed well, it offers learner-participants in organizations the benefits of transformational capacity. These include exposure to current and relevant content, individualized learning options, the convenience of 24/7 access, immediate and focused feedback, and collaborative learning environments. E-learning also provides organizations with transformational capacity by providing an economical delivery option, a customized learning tool, and access to learning data. In considering organizational e-learning practices for organizational transformation and understanding its potential, it is possible that institutions may create for themselves a competitive advantage and a culture aligned with value-added practices much needed in this knowledge economy.

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