

# TRCLARK

Transforming Leaders and Organizations™

## In Search of Learning Agility

Assessing Progress  
from 1957 to 2008

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A Special Report from TRCLARK LLC

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## About This Report

This report is written to address the market upheaval, technological disruption, demographic churning, and political instability that threaten organizations today. In the context of the global age, organizations must respond to constant buffetings. Adaptive challenge presents itself in combinations of speed and complexity that are simply unprecedented. If an organization must learn each time it responds to an adaptive challenge, the learning implications of the global age are breath taking. Our central premise is that enduring competitive advantage must be built on organizational learning agility—meaning an organization’s ability to respond to adaptive challenge—be it an opportunity, threat, or crisis—through the acquisition and application of knowledge and skills. Accordingly, we trace a brief history of organizations in their search for this capacity, sketching three distinct stages of learning agility: 1.0, 2.0, and 3.0, covering the years between 1957 and 2008. We conclude by providing a summary of current trends associated with learning agility today, outlining threats and risks in the near term, and offering a set of recommendations to leaders for future progress.

*“Information and knowledge are the thermonuclear competitive weapons of our time.”<sup>1</sup>*

Thomas Stewart  
Business writer, editor

*“This higher level of anarchy will be exciting, but it will also sometimes be very painful. Entire industries will die almost overnight, laying off thousands, while others will just as suddenly appear, hungry for employees. Continuity and predictability will be the rarest of commodities.”<sup>2</sup>*

Michael S. Malone  
Business writer, editor

*“Most of us only know how to be taught, we haven’t learned how to learn.”<sup>3</sup>*

Malcolm Knowles  
Education theorist

*“To change our way of living, we have to change our way of learning.”*

Gordon Brown  
Prime Minister, United Kingdom

## About TRCLARK

TRCLARK is a research, training, and consulting organization with deep expertise in leadership development, change management, and organization performance. With a team of world-class thought leaders and practitioners, the firm assists organizations in business, education, health care, government, and the non-profit sector. For more information, please visit [www.trclarkglobal.com](http://www.trclarkglobal.com), or call 1-801-763-0640.

## Introduction

The global age is here. With it comes a competitive environment unparalleled in intensity. Seasoned leaders used to claim they had seen every problem several times before. That's no longer true. Today, leaders face new streams of adaptive challenge. By definition, to choose leadership in the global age is to choose change. A management career must now be governed by the expectation that one will confront a parade of previously un-encountered issues. Globalization can produce nothing less. Leaders in the global age must embrace the new dynamism and the imperative to respond to continuous cycles of adaptive challenge and adaptive response. Viability and growth depend on it.

*"Change everything except your wife and children."<sup>4</sup>*

Lee Kun Hee  
Former Chairman Samsung Group

The ultimate source of adaptive capacity, competitiveness, and self-preservation, indeed the key to resilience and renewal, unmistakably points to the ongoing ability of an organization to learn and apply its knowledge. This capability precedes and underlies innovation, execution, and adaptive or pre-emptive response. As Mai Boliang, president of China's CIMC, the world's largest manufacturer of dry-cargo and refrigerated containers, aptly observes, "Our slogan is 'Learn, improve, and disrupt."<sup>5</sup>

Of course the natural rise and fall of competitive advantage is nothing new. But if the half-life of an organization's knowledge mirrors its competitive strategy, organizations clearly face a more rapid learning requirement. The compression of timeframes is shifting the source of ongoing competitiveness to learning as a core organizational competency. Unless an organization can learn at or above the speed of change in its environment, it faces the grave risk of irrelevance and failure.<sup>6</sup>

*"History shows how the demands of leadership change from one era to another."<sup>7</sup>*

David McCullough  
Historian

Organizations must undergo new learning cycles to prepare for new competitive cycles—constantly re-tooling in order to maintain competitiveness. But most organizations struggle mightily to endure the competitive pressure. We're not advocating a general plea for organizations simply to get learning. Unbounded and un-prioritized learning can actually make things worse. In any organization, learning imperatives are never created equal. Each organization has to prioritize its learning needs based on its strategic objectives. The point is that too few organizations learn fast enough or well enough.

A further complication is that employee retirement and mobility is on the rise.<sup>8</sup> For retiring workers in particular, the issue cuts both ways: When they leave, they carry with them obsolete knowledge, skills, and models better suited to former times, but they also take enduring wisdom born of experience. The net result is that the average organization is losing a larger portion of its stock of

knowledge capital each year, which only magnifies the learning challenge as it hastens the obsolescence of knowledge and skills assets.<sup>9</sup>

Under normal market conditions, organizations don't compete beyond the bounds of their ability to learn. Creating an organization with learning agility—one that learns and responds quickly to constant change—may be the central organizational challenge of our time.<sup>10</sup> Edward J. Ludwig, chairman and CEO of medical technology firm Becton, Dickinson and Company affirms, "This is not new, but the emphasis, the urgency to deploy this kind of agile learning organization is intensifying. The world is rapidly increasing its ability to throw the unexpected at you."<sup>11</sup>

*"If people don't keep learning, improving, knowing what the next issues are, and continuing to be educated, they are going to fall behind."<sup>12</sup>*

Rosabeth Moss Kanter  
Professor, Harvard Business School

Having a good strategy and being able to execute that strategy delivers competitiveness today. But sooner or later, the competitive cycle comes to an end. That's when an organization's learning agility is put to the test.

### Defining Learning Agility

Learning agility refers to an organization's ability to respond to adaptive challenge—be it an opportunity, threat, or crisis—through the acquisition and application of knowledge and skills. High agility organizations are able to learn quickly and apply effectively the collective knowledge and skills of their members, whereas low agility organizations respond slowly and ineffectively to adaptive challenge. At an organizational level, agility is the ability to grow, change, or innovate at or above the speed of one's own market. Anything less cannot be considered agility.

Let's make two important distinctions: First, agility is different from competence. Competence refers to an organization's ability to meet the challenges of today. It means an organization possesses the requisite knowledge and skills, and is harvesting those assets through application and value creation. Learning agility, on the other hand, is the ability to continuously acquire new knowledge and skills assets during or ahead of changes in the market. An organization may be highly competent today, but competence today is not necessarily a good predictor of future competence—learning agility is. It provides the best known gauge of future competitiveness. Some of the best organizations today will stumble and fail tomorrow precisely because they are not learning with or ahead of their markets.

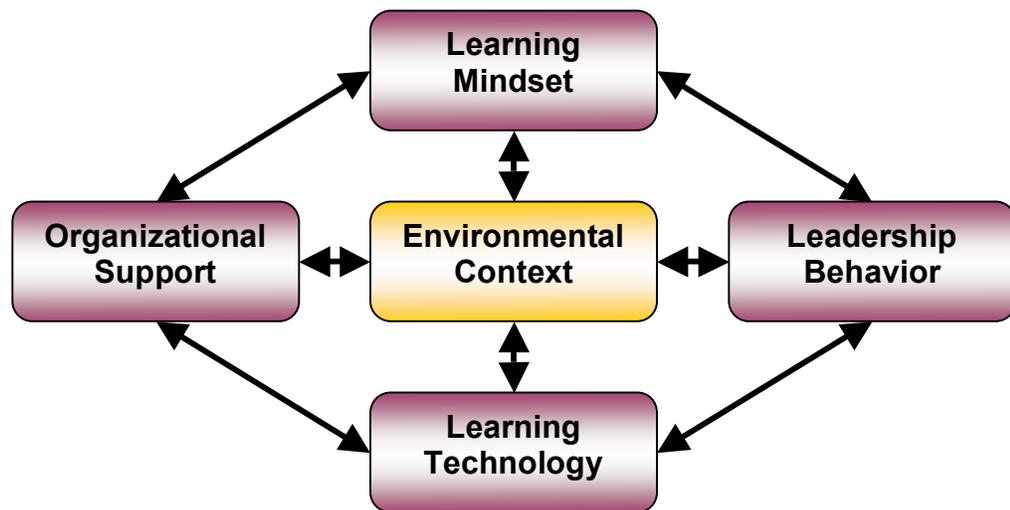
A second distinction is that organizational learning agility is not simply the learning agility of an organization's members. It's an organizational capacity that extends beyond the people in it, allowing the organization to perform beyond the accumulated learning agility of individuals.<sup>13</sup> For example, Proctor and Gamble's "Connect and Develop" process of external collaboration is a world-class agility asset through which it has engaged in over 1,000 external partnerships to generate innovations in technology, products, and services. The process, which is a combination of technology and organizational support process, is both push and pull—soliciting solutions from the outside for identified needs as well as inviting new ideas for consideration. The program is a clear example of an agility asset that stands independent of individual employees.<sup>14</sup>

Achieving a state of high learning agility at the organizational level is a formidable challenge. According to our research, five primary factors surface as having a critical impact on the promotion or hindrance of organizational learning agility across the broad spectrum:

<b>1</b>	<b>Environmental Context</b> —market conditions, attractiveness, and opportunities for sustained profitability based on competitive position as well as the relative stability of the structure of the industry. It also includes the broader external landscape, including patterns, trends, shocks, and dislocations.
<b>2</b>	<b>Learning Mindset</b> —the prevailing assumptions about how people learn, their dispositions towards learning, and what their learning habits and role ought to be based on conventional thought and also immediate market forces within an industry. It is the paradigm of the period and yet also the willingness to challenge that paradigm.
<b>3</b>	<b>Leadership Behavior</b> —the dominant themes and patterns of leadership during a particular time period.
<b>4</b>	<b>Learning Technology</b> —the common and emerging forms of technology that most organizations are using to enable learning during a particular time period.
<b>5</b>	<b>Organizational Support</b> —processes, systems, structures, and other forms of support that organizations provide to help employees in their coordinated learning and execution activities.

Organizational learning agility is a function of all five factors and their interrelationships. Each factor is a vital force, yet each can prove an intractable barrier to enterprise learning. For example, learning technology can't elevate a firm to high levels of learning agility if the prevailing mindset doesn't support continuous learning. Nor can a CEO who models collaboration and self-directed learning move an organization to high learning agility if the elements of organizational support are not in place. High learning agility relies on the mutual reinforcement of all five factors. If there are major inconsistencies or antagonisms among them, learning agility is blocked. On the other hand, if the five factors work together, the organization develops the ability to innovate—to create value in new ways based on new ideas. The following diagram illustrates the reciprocal nature of the relationships among the five factors, with each one influencing the other four either directly or indirectly.

FIGURE 1: Learning Agility Five Factor Model



To achieve high learning agility, organizations must recognize that they have significant control over the four outside factors shown in the diagram. The center of the diagram—environmental context—represents the combined influence of all external conditions and forces which have the ability to challenge and disrupt it. Organizations can respond and influence environmental context, but they can't control it. Environmental context may be stable or dynamic, supportive or disruptive, predictable or unpredictable.

An examination of learning agility from an historical perspective reveals that organizations have made significant progress during the last few decades in achieving higher levels of learning agility. Of course no organization has yet met the promise and full potential of the ideal. Yet leaders and organizations continue to make substantial progress in building capacity in the four factors which must constantly interact with the environmental context.

## The Three Stages of Organizational Learning Agility

In the following sections, we will trace the pursuit of learning agility using a three-staged chronology as the context for discussing how organizations have, are, and will continue to address the five factors.

- The first stage of development, **Learning Agility 1.0**, refers to the initial stage of learning agility that stretches from 1957 to 1981.
- **Learning Agility 2.0**, the second stage of development, runs from 1981 to 2004.
- The third stage of development, **Learning Agility 3.0**—the stage in which we now find ourselves—spand from 2004 to the present.

Clearly the advance of learning agility cannot be defined simply by the linear advance of technology. Technology is but one of the five factors. Its impact can be severely limited by the other four. Nevertheless, certain technology developments represent inflection points along the path of development. Each of the inflection points that we discuss marks the beginning of a gradual shift in the five factors driving organizational agility.

## Learning Agility 1.0: 1957-1981

### Environmental Context

The learning tradition of pre-modern society was for centuries defined by two enduring patterns. The first was informal learning in the form of on-the-job training. It was customary to apprentice young workers in the skilled trades by having them observe and work alongside skilled craftsmen until they acquired enough knowledge and skill to work independently.<sup>15</sup> The second pattern was that of formal learning in which a teacher taught students through formal instruction. The second pattern traces its origin to the empires of antiquity and later to the learning centers established by religious orders. For centuries, society held to these two approaches: one experiential, the other didactic. There seemed to be little impetus for change. In the early 18<sup>th</sup> century, the arrival of the Industrial Revolution created major developments in agriculture, transportation, and manufacturing. Even with these profound economic and social changes, however, the learning tradition remained largely the same.

During the post-war years of the 1950s, organizations for the most part inhabited relatively stable markets. In the United States, oligopolies dotted the corporate landscape, enjoying massive economies of scale and constrained competition.<sup>16</sup> It was common for an organization's competitive cycle to last for years, even decades. In this context, a prevailing assumption held that people were essentially commodities because the source of value was physical and capital assets rather than mental labor and other forms of intangible assets. Productivity and competitive advantage were driven by the means of production and primarily unskilled labor. The productive capacity of an individual was based on the labor he or she could perform rather than any type of intellectual or creative output.

With the advance of technology and the rise of foreign economies, the rules of the game began to change. If the advent of Agility 1.0 is traceable to a specific event, it is the Soviet Union's launch of "Sputnik" in 1957, the first satellite sent into outer space. This event stunned the world and created a collective gasp in the United States. The Soviet achievement created not only a sense of inferiority in the scientific community, but it also had the effect of arousing many organizations out of their stupor and spurring them to recognize their own vulnerability. It catalyzed organizations to push forward, assess and improve their competitive positions. Yet it was an incremental approach all the way through the 1970s.<sup>17</sup>

## Learning Mindset

After two centuries of obsessing on the machines that provided automation, mass production, and economies of scale, leaders gradually turned their gaze to the designers, builders, and operators of those machines. Organizations began to focus on human capital. The era of skills mastery began with a focus on hiring qualified people to perform well-defined jobs. Eventually, there was more emphasis placed on employees acquiring skills in the workplace. In fact, during Learning Agility 1.0 the training or learning function officially came into existence in several large corporations.

The acknowledgement of the individual as the source of productive capacity was a slow, evolutionary process. Sputnik spurred the U.S. government to undertake massive investments and set aggressive programmatic goals in science and space. These efforts, and their dramatic results such as landing on the moon, taught organizations generally that they could tap into their people in an ongoing, generative process. Although Learning Agility 1.0 brought human capital into the light, it was only a partial exposure. The prevailing mindset still held that only a small part of an organization's population could learn and contribute through ideas. Leaders still operated on the assumption that there were thinking and non-thinking parts to the organization. Based on the influence of Frederick Winslow Taylor, organizations restricted and compartmentalized the value of human labor as measured in terms of raw task-based productivity.<sup>18</sup> The larger non-thinking part of the organization was not even considered for its human capital potential. To a large extent, thinking and ideas were seen as inefficient at best and a diversion and interruption to productivity at worst. As for the thinking part of the organization, the fundamental learning mindset was "one-time learning for permanent qualification."

## Leadership Behavior

During Learning Agility 1.0, autocratic, top-down, command and control leadership continued as the inherited model of the industrial age. That model encapsulated the basic tenet to value assets and commoditize people. Despite organizational behaviorists appearing on the scene in the latter part of Learning Agility 1.0, the legacy of hierarchy and the rules-based emphasis on accountability and internal control remained the focus.

## Learning Technology

Learning Agility 1.0 witnessed a watershed of new technology that culminated in production automation and centralized computing. But these tools did relatively little to change the speed, integration, or application of learning. Rather, the emphasis focused on efficiency and increased productivity through technology and capital assets. The traditional technology of learning—instructor-led, face-to-face training—remained the same. The period emphasized basic and technical skills training and introduced approaches such as the training laboratory and the assessment center.<sup>19</sup>

## Organizational Support

In the early stages of 1.0, organizations encouraged basic skills training primarily using external resources and after-work hours. Gradually, training was brought into the organization and delivered during work time. Cognitive and behavioral psychology contributed to the formalization of training development and delivery. National associations emerged, advancing training as a necessary part of organizational success.

During 1.0, the nature of training began to change. Basic skills training became supplemented by interpersonal skills and management training. Organizations who could afford it bought technology-facilitated media because of its promise of greater productivity in the workplace. The training function became more widely recognized as important, which led to a greater investment in formal training courses. In almost all cases, organizational training was restricted to periodic formal events even though programmed (individualized) instruction was making its way in and out of formal school education.

A summary of the five factors of Learning Agility 1.0 is given in the figure below.

**Figure 2: Summarizing Learning Agility 1.0**

Stage	Learning Agility 1.0 1957-1981	Learning Agility 2.0 1981-2004	Learning Agility 3.0 2004-present
Environmental Context	Stable markets, incremental change		
Learning Mindset	One-time learning for permanent qualification		
Leadership Behavior	Hierarchical, top-down, command-and-control		
Learning Technology	Instructor-led, face-to-face with early stage technology-facilitated media		
Organizational Support	Event-based training within the workplace becomes a budgeted reality		

## Learning Agility 2.0: 1981 – 2004

### Environmental Context

The 80s ushered in a far different environmental context, with waves of market disruption, instability, and industry consolidation. Society came to understand as never before the stark reality that organizations must evolve, adapt, and continually re-create themselves or face failure. The 80s changed the collective perception of organizations as attrition rates among Fortune 500 companies rose from 10 percent between 1976 and 1985, to 36 percent between 1991 and 1996.<sup>20</sup> In the midst of the turbulence, the personal computer was born, marking the beginning of widespread technology-enabled learning.

We gauge the beginning of Learning Agility 2.0 to IBM's commercial release of the first generation personal computer on August 12, 1981. This event qualifies as the beginning of a new learning era because it represents the true commercialization of personal computers, leading to massive changes in the organizational learning landscape. At the time IBM launched the PC 5150, there were a number of competitors in the personal computer market. The IBM skunk works project team that designed the PC created not only a product, but also a business design that came to dominate the market based on off-the-shelf parts architecture for the machine and a third-party distribution model for sales. A year after launch, IBM had sold 200,000 PCs and the world would never be the same.

### Learning Mindset

During Learning Agility 2.0, the idea that durable competitive advantage came from people continued to incubate. There was significant movement towards breaking down the industrial age orthodoxy that individuals learned to attain mastery and permanent qualification. Instead, the learning mindset gradually shifted to a new paradigm that held that learning should be "continuous for ongoing qualification."

The relentless disruption of the 80s made it clear that organizational survival depended on learning as an ongoing process. As thousands of low-skill manufacturing jobs began migrating overseas, industry leaders had no choice but to move up the value chain and place more emphasis on knowledge work. During the 90s the concept of the learning organization flourished, but the reality of creating one proved a bigger challenge than people anticipated.<sup>21</sup> During Learning Agility 2.0, most organizations moved some distance from an industrial, hierarchical model to one with de-layered management and employee empowerment practices.

*"First we create our structures. Then our structures create us."*

Winston Churchill

Peter Drucker coined the term “knowledge worker” in 1959, but it didn’t gain traction until the 1980s. The rise to prominence of the concept was an influential force in creating changes to organizational process and structure. Knowledge workers slowly persuaded organizations to create more flexible lattice-like structures. They also prompted a revolution in the concepts of performance and career, demanding that organizations spend more time training and supporting their employees and less time directing them. The idea that individuals and teams could largely be self-directed was also introduced, as was the concept of continuous improvement. Most of these concepts were synthesized compellingly by Peter Senge in his book, *The Fifth Discipline: The Art & Practice of the Learning Organization*, published in 1990.

### Leadership Behavior

The practice of leadership continued to evolve during Learning Agility 2.0. In particular, the predominant patterns of leadership continued their migration from bureaucratic and autocratic to democratic and egalitarian, from task-oriented to people-oriented, and from directive to facilitative. The progress was gradual, but the general current moved decidedly in the direction of valuing, engaging, and mobilizing people.

This was more out of necessity than conviction. The new dynamism of markets that emerged from 1981 to 2004 prompted leaders to turn to their people. Even hard-core authoritarian bosses, conditioned in another time and place, could be found yielding to the pressure of unpredictable markets, seeking counsel and soliciting input from their people. Organizations responded to the environment with management innovations such as total quality management, reengineering, and self-directed work teams.

The increasing demands for a protean organization during 2.0 created the first major phase of leadership behavior that focused on the continuous learning and engagement of the employee.<sup>22</sup> But the shift saw certain sectors move first, such as information and service-based organizations that relied on knowledge workers. The emerging pattern of leadership behavior during 2.0 moved toward a model of the leader as direction-setter, servant, coach, enabler, and facilitator. It’s also noteworthy that the 360 degree multi-rater survey instrument began moving into broad usage during this stage.

## Learning Technology

During Learning Agility 2.0 (1981-2004), learning technology advanced exponentially with the development of computer technology and the advent of the internet. Computer-based training led to first generation e-learning, which in turn led to the explosion of internet-based collaborative tools. Knowledge management was also born during 2.0. These advances brought about tools and systems that in some cases overcame boundaries of geography and ignored the constraints of structure. But the bane of Learning Agility 2.0 was the fragmentation of the tools, and the consequent limits on the amount of true rapid and collaborative learning that was possible.<sup>23</sup> In some cases, 2.0 led to new levels of chaos as individuals now had the ability to build their own data bases. As a result, organizations soon found themselves with disparate databases built on different data dictionaries and no real way to reconcile a variety of definitions for common attributes.

During 2.0 a variety of significant technological advances took place:

- **Classroom Learning**

Traditional classroom instruction became more mediated, monitored, and managed by technology. Classroom walls expanded to engage remote learners in virtual classrooms. Distance learning took many technological forms, ultimately achieving mainstream status via web-based virtual classroom technologies. Finally, the pattern of instruction began to shift from passive learning to more interaction among students and instructors.

- **Individualized Learning 24X7**

Computer-assisted learning morphed into computer-based training (CBT), which in 1996 reinvented itself as internet-based training and began a four-year spike in corporate learning expenditures. The exaggerated claims went so far as to predict total replacement of the classroom. The term, “blended learning” wouldn’t appear until CBT was well into its decline as the chief techno-darling.

Kevin Kruse, an eLearning columnist, published an article describing the “eLearning Hype Cycle.” He noted that the promises of eLearning had at its peak reached “the height of irrational exuberance” with “the unprecedented success of DigitalThink’s IPO and record-high stock price.” The focus on learning portals and content aggregation was also the rage at the time, with only a few critics pointing out the problems around an unproven B2C market and a lack of differentiation and barriers to entry. To cap it off, Cisco’s John Chambers famously proclaimed that “eLearning would be the next killer app.”<sup>24</sup>

During 2.0, eLearning evolved into myriad web-based learning models with corresponding technologies. While the luster of eLearning was dimming, industry leaders finally rejected the prevailing “go it alone” view of pure eLearning and began touting “blended learning” as the solution to realize eLearning’s original promise.

- **Learning/Learner Management**

During the early stages of the eLearning life-cycle, a market for “learning management systems” (LMS) emerged. These technologies followed a similar but slightly lagging trajectory. In the latter stages of 2.0, increased functionality brought additional focus on learners managing their own learning. Whether or not learning/learner management system technologies survive the demands of what is now learning agility 3.0 remains to be seen. It will largely depend on how these technologies facilitate individual and organizational agility that leads to measurable business impact.

- **Knowledge/Content Management**

During 2.0, XML revived an earlier SGML promise of content independence from proprietary formats and technologies. Document management and web portal technology vendors began marketing their technology wares as Enterprise Content Management Systems. Learning content management technologies sprang forward, many as extensions of LMS systems. At the same time, the management of rich media assets began to become important as organizational media assets became vulnerable to web nabbing. XML initiated a total reformation of content management and brought about the reality of writing content once, translating that single source of content into many languages, and then deploying that content in all the forms needed. This multi-channel publishing capability was displaced, for a time, by a brief pursuit of reusable learning objects. But when reuse eluded eLearning, RLOs fell by the wayside. Reuse was also inhibited by large content objects, more specific content objects, and content with unclear purpose or audience.

- **Performance Support**

In 1994 Gloria Gery published her book, *Electronic Performance Support Systems*.<sup>25</sup> She became a major voice for what has now become a widespread effort to address the informal side of learning. Unfortunately, during the final years of learning agility 2.0, performance support made minimal headway in contributing to organizational and individual agility. The tools were still limited and lacked the capacity to sustain robust performance support practices.

- **Collaboration**

The possibilities of collaboration within and beyond organizations also increased during 2.0, but in practice the efforts fell even shorter than Performance Support. Google and other dominant web players positioned themselves to usher in Learning Agility 3.0. Arguably, the central contribution to collaboration was the development of “communities of practice” as a way to build structure, process, social context, community, and a sense of membership around a learning topic or area of expertise in order to promote more rapid and effective learning.

## Organizational Support

During Learning Agility 2.0, the first layers of organizational support appeared. For the most part, these consisted of three important yet siloed functions: training, support services (e.g., help desks), and publications. Nearly all organizational support from the training function focused on formal learning programs. Support services picked up where training left off, and often cultivated an environment of educational welfare where problems and needs were resolved with great proficiency, but left those who had made help desk calls no more proficient after the call than before. Publication groups were charged with developing ongoing support solutions such as printed and electronic documentation and online help. Between support service groups and documentation groups, the informal learning needs within an organization were supposedly covered. But that was not the case. Informal learning, where it is estimated that 70 to 80 percent of all learning takes place, had gaping holes. Informal help networks flourished to fill the void where, too often, unconsciously incompetent workers helped others achieve the same status. And when someone demonstrated real competence, the less skilled would rob him or her of productive work time.

A summary of the five forces during Learning Agility 2.0 is given in the figure below.

**Figure 3: Summarizing Learning Agility 2.0**

Stage	Learning Agility 1.0 1957-1981	Learning Agility 2.0 1981-2004	Learning Agility 3.0 2004-present
Environmental Context	Stable markets, incremental change	Unstable markets, discontinuous change	
Learning Mindset	One-time learning for permanent qualification	Continuous learning for ongoing qualification	
Leadership Behavior	Hierarchical, top-down, command-and-control	Transition to democratic, egalitarian, facilitative	
Learning Technology	Instructor-led, face-to-face with early stage technology-facilitated media	Instructor-led with asynchronous and synchronous eLearning alternatives	
Organizational Support	Event-based training within the workplace becomes a budgeted reality	Formal, multi-channel event-based training	

## Learning Agility 3.0: 2004 - Present

### Environmental Context

During Learning Agility 3.0, the patterns of market disruption and accelerated change have become the norm. And given the technological, economic, social, and political forces that drive the new environment, there is no evidence to suggest that organizations will somehow return to conditions of stability and equilibrium. The volatility and speed of the new era appears irreversible, which is tough news for leaders and organizations struggling to survive. Organizations confront increasing complexity in globalizing markets. They find themselves constantly challenged to learn and change, as Gary Hamel observes, “in a way for which they have no precedent.”<sup>26</sup>

We peg the beginning of Learning Agility 3.0 to Google’s initial public offering on August 14, 2004. This event signaled the entrance and game-changing impact of web 2.0. Technologies such as wikis, blogs, social-networking, open-source, open-content, file-sharing, and peer-production were not new at the time, but the Google offering coincided with the point at which virtual communities finally gained massive traction and scaled to orders of magnitude beyond anything of the past. Of course the internet was already heavily populated, but 2004 saw a select few websites consolidate anchor positions in a virtual land grab. The web presence of not only Google, but also YouTube, Myspace, Facebook, Wikipedia, eBay, and Blogger.com created a force multiplier effect for social networking and mass collaboration. This is not to say that these sites enable learning as their primary function. With many of these sites, self-publishing is the primary objective and outcome. Nevertheless, these sites changed the speed and scope by which information was disseminated and indexed, and consequently, the number of people participating in its creation and use.

### Learning Mindset

The reality of 3.0 is that there is no such thing as permanent competence or a fully developed skill set in either individuals or organizations. Therefore, the learning mindset is one of continuous, rapid, and collaborative learning at the moment of need. The mindset hangs on the crucial assumption that collaboration raises the overall knowledge level of a group. This is possible but not automatic. Poorly executed collaboration does just the opposite. Collaborators can come away with dumbed-down rather ratcheted-up collective knowledge. Nevertheless, the implication is that we need to re-perceive the organization itself and think about its role and function in a different way. Malcolm Knowles, a prominent education theorist, has challenged us to rethink what an organization is—to view it as a “system of learning as well as production and service-delivering resources.”<sup>27</sup> In the context of 3.0, the idea of an organization as a system of learning as well as production is becoming a stunningly accurate definition.

The newly emerging learning mindset of 3.0 will take years to spread and take root. Organizations are still very much in transition with a lot of work to do before the new mindset descends fully into the cultural soil. Today, most organizations still tolerate a significant amount of non-learning from employees. It’s not yet an ingrained habit, norm, or expectation that everybody learns and keeps learning. To some extent, the age of mass collaboration has brought with it the assumption that everyone is prepared and willing to participate in peer production and co-creation activities.

In their book, *Wikinomics*, authors Don Tapscott and Anthony Williams describe the peer participation revolution brought on by web-based collaborative technologies and horizontal networks.<sup>28</sup> But the fact remains that the vast majority of the population is unprepared and unmotivated to take part in web-based collaboration because they simply lack the skills and

understanding. Organizations are in many cases full of people who have outdated learning skills combined with an industrial learning mindset that doesn't allow them to learn continuously. For example, the management ranks of many organizations are still populated by baby boomers who are hanging on, trying to avoid career misfortune until retirement, enduring on the basis of old skills from another time, immobilized, publically acknowledging the new world but privately unwilling to learn in the new. Also, there are numerous organizations that perpetuate cultures of fear. In these environments, the natural reaction is simply not to share information.

*"If your mind's not open, you're not going to be able to engage in an innovation process."<sup>29</sup>*

A.G. Lafley  
CEO, Proctor & Gamble

The dark side of the 3.0 learning mindset is the strong grip of what Richard Florida in his book, *The Rise of the Creative Class*, refers to as "techno-utopianism."<sup>30</sup> This is the misconception and over-abundant faith that advances in technology (in this case learning technology) will automatically take organizations to a place of true learning agility. Impressive as the advances in collaborative technology are, they still can't overcome barriers such as an outdated learning mindset or autocratic leadership. Technology alone can't set organizations free, yet we continue to hear evangelists proclaiming the limitless potential of the latest advances in web 2.0 tools such as mashup web applications and virtual learning worlds. The technology hype-cycle, the romanticism, and the offers of salvation haven't gone away.<sup>31</sup> In their book, *The Social Life of Information*, John Seely Brown and Paul Duguid point out the crucial issue here: "If society cannot make occasional, huge leaps and transformations, it will forever lag technology."<sup>32</sup> This technology-lead-organization-lag pattern has repeated itself in every stage of learning agility, and will continue to be the case.

### Leadership Behavior

Leading from the top by fiat has finally reached diminishing returns during Learning Agility 3.0. There is widespread recognition that the key to sustainable growth is the cultivation and retention of knowledge workers because they create up to three times the profit of other employees.<sup>33</sup> What this requires in a leader is a fundamental receptivity to both people and ideas. Of course leadership styles vary, but 3.0 is creating a universal requirement for leaders to demonstrate an emotional and cognitive openness that allows them to learn continuously themselves and create an environment where others feel both motivated and safe to learn as well.

*"Command and control--I love it, I know how to make it work. But that's not the future. It's not where productivity is going to come from and it isn't the way that you're able to move with speed and skill."<sup>34</sup>*

John Chambers  
CEO, Cisco Systems

The speed of change outside an organization now favors the leader who explores, monitors the periphery, and extends the field of vision for the entire organization. Jeff Immelt, the CEO of General Electric reflects, “The most important thing I’ve learned since becoming CEO is context. It’s how your company fits in with the world and how you respond to it.”<sup>35</sup> Management guru Peter Drucker made essentially the same point a few years before: “To define the meaningful outside of the organization is the CEO’s first task.”<sup>36</sup> Given the dynamic environment in which most organizations operate, the only way to understand context, and keep understanding it, is through openness and continuous learning. No CEO in today’s world of speed and complexity can get up in his or her hot-air balloon and perform this function alone. It used to be that leaders often performed the job of interpreting the outside world as a solo act. That is simply not possible today.

*“I think I’m a learner. I never pretend to know all the answers, and I want to continue to be fast on my feet.”<sup>37</sup>*

Jeffrey Immelt  
CEO, General Electric

Another pattern of leadership behavior coming into sharper relief in 3.0 is the ability to engage people. It has become a vital skill for leaders in unforgiving environments to be able to call for the discretionary efforts of their people or perish. Those who can’t are washing out more quickly now. “Solutions to adaptive challenges,” Ronald Heifetz and Donald Laurie argue, “reside not in the executive suite but in the collective intelligence of employees at all levels, who need to use one another as resources, often across boundaries, and learn their way to those solutions.”<sup>38</sup> Increasingly we will not look upon our leaders as having the answers; we will look upon them as those who can draw out those answers by tapping the creative potential of the organization.

The leadership behavior change required to take organizations to “continuous, rapid, and collaborative learning at the moment of need” is significant. It shifts the definition of competence from knowledge and skills to the ability to acquire knowledge and skills. Competence is now a matter of individual learning agility. Not surprisingly, this definition is personally threatening at worst and psychologically unsafe at best for many leaders today. Yet leaders must stand first in line to model the habits and patterns of a high performance learner. This is not only a fundamental change from the leader-as-expert model, but it also requires leaders to assume a very different emotional and social posture. Leaders must become comfortable portraying themselves as competent through their ability to learn and adapt rather than on the basis of their current knowledge and skills.

*“In a time of drastic change it is the learners who inherit the future. The learned usually find themselves equipped to live in a world that no longer exists.”<sup>39</sup>*

Eric Hoffer  
American social writer

The new model of leadership for 3.0 requires a level of humility and curiosity that is simply alien to most traditional conceptions of leadership. Ironically, leaders are being challenged to develop confidence in the very act of not knowing. Leaders need to be able to acknowledge publicly when reality moves beyond their knowledge and skills, and do so based on the demonstrated ability to learn and adapt. They must be submissive to the fact that they will pass through periods of temporary incompetence in their market and technical knowledge as they move through learning and change cycles. But they will do so based on their underlying ability and willingness to learn.

As MIT professor Edgar Schein has observed, for a leader to engage the entire organization in learning, “leaders must learn something new. Before anyone else changes, leaders must overcome their own cultural assumptions and perceive new ways of doing things and new contexts in which to do them.”<sup>40</sup> It has always been true that followers endow leaders with the credibility and legitimacy to lead. What’s different in 3.0 is that credibility is based on personifying the qualities of a high performance learner rather than an expert.

*“The hardest thing about being a leader is demonstrating or showing vulnerability.”<sup>41</sup>*

Howard Schultz  
CEO, Starbucks

Indeed, we are starting to see the emergence of a new “learning leader” paradigm. It may in fact be the biggest shift in emphasis in leadership development theory in several decades. As a pattern, the learning leader is exceptionally attuned to the changing environment and the perishable nature of competitive advantage. Because of this ongoing acknowledgement, the learning leader is less wedded to trappings of status and privilege, less ego-driven, less yearning for deference, and certainly less attached to the status quo. Instead, learning leaders are more concerned with understanding the changing ecology of their organizations and protecting the value the organization has created through a vigilance and readiness to learn and adapt. The learning leader understands that learning is where advantage comes from, that it represents the highest form of enterprise risk management, and that the biggest risk a firm can take is to cease to learn. It seems increasingly clear that leaders who don’t possess deep patterns of aggressive and self-directed learning in their dispositions are almost certain to fail, whereas the ones who do are almost certain to succeed, provided, however, they combine those learning patterns with the ability to engage people.<sup>42</sup> The learning leader not only learns, but he or she is always accessible and never remote.

*“We have a social revolution going on in terms of how people collaborate, communicate, connect and share knowledge.”<sup>43</sup>*

Peter Cheese  
Managing Director, Accenture

## Learning Technology

Learning technology is in the early stages of making its full contribution to Learning Agility 3.0. Here are the patterns:

The learning technology market is finally turning serious attention to the informal side of learning. In response, performance support, authoring, delivery, and brokering tools are flooding into the marketplace. Most of the demand is coming from larger organizations, spurring functional improvement in existing technologies as well as the development of new and innovative entrants. In addition, performer-generated content through social networking together with metadata-enabled parametric search capabilities, are extending performance support capacity. This is a response to the widespread need for fingertip knowledge support. People need intuitive, tailored aid to perform at all moments of need.

Learning Content Management is coming back into the limelight based on the input of forward-thinking learning leaders. Multi-channel publishing from single-sourced, metadata-enriched content is not only delivering significant cost savings, but also providing sustainable benefits that contribute to learning agility. Other broader knowledge management technologies and practices will ultimately wrap around these LCM Systems, enhancing the ability to capture, store, manage, and maximize the usefulness of content capital. But as we progress further into 3.0, the challenge of content management increases as the ocean of data gets bigger. Nick Bontis, professor at McMaster University points to the exponential growth of information and contends, "By the year 2010, the cumulative codified information base of the world is expected to double every 11 hours."<sup>44</sup> As the content base expands, the probability of lost, irretrievable, irrelevant, inaccurate, and outdated content increases. This trend threatens the capacity of an organization to readily deliver relevant content needed for maximum agility unless better content management practices are developed.

Greater integration of technology in support of learning agility is also underway. This movement is bringing about the destruction of silos within and beyond organizational boundaries—silos that have historically suppressed organizational agility. For example, an emergent tool in Agility 2.0 was the wiki. The wiki is designed to be open, accessible, flexible, and immune to organizational boundaries. Corporate wikis, however, have generally been highly restricted and consequently of limited usefulness. Public wikis, on the other hand, have continued to push the collaboration boundaries, operating above the level of formal structure, authority, lines of communication, and many other traditional organizational boundaries and constraints.

At the same time, other types of technology that accelerate collaborative work are integrating as mashups, further disallowing structure, aggregating human capability, and harnessing innovation and value out of what, at a tactical level, is a chaotic creative process. When these collaboration technologies are launched, there may be some version of grand intent, but there certainly is no roadmap. These processes take their own course. As Web 2.0 tools and systems continue to integrate, orchestrate, and extend across the traditional siloed boundaries within and beyond the formal structures and firewalls of organizations, they will continue to enhance but not drive learning agility.

The following figure illustrates a comparison of learning technology offerings from Learning Agility 1.0 to 3.0. Strikingly, most of the new offerings in Learning 3.0 have arrived in the last decade.

**Figure 4: Learning Technology from Learning Agility 1.0 to 3.0**

Agility 1.0 1957-1981	Agility 2.0 1981-2004	Agility 3.0 2004-Present	Agility 3.0 Near Future
<ul style="list-style-type: none"> <li>▪ Formal Classroom/ Instructor-led training</li> </ul>	<ul style="list-style-type: none"> <li>▪ Self-paced eLearning</li> <li>▪ Blogs</li> <li>▪ Communities of practice</li> <li>▪ Expert networks</li> <li>▪ Formal coaching</li> <li>▪ Podcasts</li> <li>▪ Second life virtual worlds and communities</li> <li>▪ Social networking sites</li> <li>▪ Synchronous web-based learning</li> <li>▪ Simulations</li> <li>▪ Virtual classrooms</li> <li>▪ Webinars</li> <li>▪ Wikis</li> </ul>	<ul style="list-style-type: none"> <li>▪ Personalized eLearning<sup>45</sup></li> <li>▪ Formal and informal learning solutions tailored to job roles and integrated into workflow via performance support brokers</li> <li>▪ Learning content management providing single-source publishing</li> <li>▪ Personalized talent and learning management systems</li> <li>▪ Intuitive orchestration of Agility 2.0 technologies via mashups and other means of consolidation</li> <li>▪ Embedded electronic performance support</li> <li>▪ Mobile learning virtual labs</li> </ul>	<ul style="list-style-type: none"> <li>▪ Knowledge management fully integrated into business workflow providing content management at enterprise, workgroup, and personal levels</li> <li>▪ Performance support smart agents that are immediate and imbedded</li> <li>▪ Multi-lingual audio coaches</li> </ul>

Learning continues to shift from being discrete and event-based to becoming continuous and imbedded into workflow. As a result, it is becoming increasingly difficult to separate learning from production because of the interwoven nature of acquiring knowledge and creating value. There is less demarcation than ever between the two processes as individuals toggle back and forth in real time. Work flow process technologies will eventually integrate with learning and talent management systems to facilitate a more seamless integration of workflow and learning. In addition, performance support brokers are already in the marketplace driving this critical transition.

## Organizational Support

Organizational support is evolving rapidly during Learning Agility 3.0 based on changes in the five factors, and is driven by the need for the learning function to provide greater strategic value.

High agility organizations are able to learn quickly and apply effectively the collective knowledge and skills within and even beyond their borders. Collective knowledge and skills encompass not only what is resident and evolving within people, but also all that has been captured and stored along the way, made and kept useful in a form that is immediately accessible and adaptive to individual needs.

The growing dilemma is that we have long passed the point where organizations can expect their people to acquire and retain what they need to know to do their jobs. In a ground-breaking longitudinal study, Robert Kelley of Carnegie Mellon University found that in 1996 knowledge workers stored 75 percent of the knowledge they needed to do their jobs in their own minds. In 1997, that percentage plummeted to 15 to 20 percent. Finally, in 2006, knowledge workers reported that they only stored eight to 10 percent of the knowledge they need to do their jobs in their minds.

Clearly, organizational learning agility has become massively dependent on the organization's ability to capture, pool, and warehouse business relevant knowledge assets. But this is not all. The final step is to provide ongoing intuitive, relevant, and rapid access. Thomas Lawrence from Simon Fraser University and his colleagues explain: "To institutionalize change, organizations need an architect to design the systems necessary to embed the change in corporate routines."<sup>46</sup> Who is that architect? It is none other than those who design and implement the processes, systems, and structures of organizational support. It is also those who put in place recognition and reward systems for employees. If done effectively, organizational support cultivates a culture of use for that support and the deployment of those knowledge assets. It attracts and motivates users to sustain their learning efforts. A lingering problem in many organizations is that reward and recognition systems are informed of a 1.0 learning mindset and remain stuck in the 70s. These legacy systems represent real liabilities to higher levels of agility.

Performance Support, a broader and more current extension of Electronic Performance Support Systems (EPSS), represents the missing link between training and true on-the-job performance. It can be defined as intuitive, tailored aid to people at any moment of need to ensure the most effective performance. Performance support solutions provide targeted and organized information at the moment of need by embedding the solution directly into the performer's applications and workflows.

Increasingly, performance support solutions employ as their overarching learning framework a commitment to deliver learning support so that individuals receive only what they need, in the form that they need it, and at the five fundamental moments in which they need performance support.

**Figure 5: Learning at the Five Moments of Need**<sup>47</sup>

<b>1</b>	Learning how to do something for the first time.
<b>2</b>	Learning more based on prior learning experience.
<b>3</b>	Learning at the point of application, independent of any prior learning, when previous learning has been forgotten, and/or when adapting performance to unique situations.
<b>4</b>	Learning when things change in order to adapt to new ways of doing things.
<b>5</b>	Learning when things go wrong in order to solve a problem.

The training industry has primarily focused on the first two moments of need (learning for the first time and learning more). Documentation teams have assumed the responsibility of providing printed information and online help for people to use when they face the third moment of need (learning at the point of application). Support Services or Help Desk practices have also assumed a shared role in supporting people in this third moment, but their primary work has been to address the fifth moment (when things go wrong). Few organizations have effectively addressed the fourth moment of need (when things change), given the unique challenge of overriding skills that have become entrenched in the work patterns of people.

As a simple diagnostic, an organization can measure its fundamental learning agility by assessing the organization's capacity to address the five moments of need. As organizations put in place systems that facilitate learning agility, those systems must be aligned and integrated in an efficient and intuitive way to accommodate performance at all five moments of need. This is the overarching goal of performance support in 3.0. But technology alone can't solve the problem. Learning agility is a co-creative process that springs from richly enabled interaction and a move to a process-oriented view of the business as a whole rather than as discrete sets of siloed activities. Organizations quickly bump up against the limits of their learning mindset and leadership behavior if those factors aren't supportive of true learning agility.

**Figure 6: Summarizing Learning Agility 3.0**

<b>Stage</b>	<b>Learning Agility 1.0 1957-1981</b>	<b>Learning Agility 2.0 1981-2004</b>	<b>Learning Agility 3.0 2004-present</b>
Environmental Context	Stable markets, incremental change	Unstable markets, discontinuous change	Unstable markets, radical change
Learning Mindset	One-time learning for permanent qualification	Continuous learning for ongoing qualification	Continuous, adaptive, and collaborative learning at the moment of need
Leadership Behavior	Hierarchical, top-down, command-and-control	Transition to democratic, egalitarian, facilitative	Developmental, transparent, challenging convention
Learning Technology	Instructor-led, face-to-face with early stage technology-facilitated media	Instructor-led with asynchronous and synchronous eLearning alternatives	Integrated systems aligned with business processes and dynamic requirements
Organizational Support	Event-based training within the workplace becomes a budgeted reality	Formal, multi-channel event-based training	Individualized support at all five moments of need

## Current Trends in Learning Agility 3.0

- 1. Organizational learning agility is becoming the defining quality of high performance organizations.** As intellectual capital becomes the dominant currency in the knowledge economy, learning agility will become the most critical factor in sustaining competitive advantage.<sup>48</sup> Similarly, as the increased speed and complexity of change comes to define the business environment, strategy will become a more temporary asset. Those who deliver value will be more rapidly rewarded than ever before. For example, Accenture Learning reports that organizations with high-performance learning capabilities have 27 percent higher productivity, 40 percent higher revenue growth, and 50 percent greater net income than their industry peers.<sup>49</sup> Similarly, those who fail to deliver value will be more rapidly penalized. Leaders must increasingly look upon the elements of organization, including mission, vision, strategy, structure, process, systems, technology, and roles and responsibilities as temporary, configurable, and dispensable parts. Beyond learning agility itself, an organization's values will remain as the only other enduring asset.
- 2. Individual learning agility is fast becoming a core leadership competency.**<sup>50</sup> Preliminary research indicates that measures of learning agility may in fact be the single most powerful predictor of leadership success.<sup>51</sup> Consequently, organizations are moving to define and incorporate definitions of personal learning agility into job requirements and selection criteria for hiring leaders. We predict that in the next five years, executive recruiting firms will operationalize and incorporate individual learning agility as a fundamental leadership competency and critical selection criterion, particularly in faster-moving, complex industries.
- 3. The learning function is poised to become more strategic and performance driven.** As it is tasked to equip employees with the right information, sufficient knowledge, and the required skills to be competitive at any of the five moments of need, the learning function will make significant progress in providing comprehensive performance support.<sup>52</sup> This will require CLOs and their organizations to understand market movements and trends much better than they do today. This broader performance support imperative will move learning to the front of the organization in its capacity to spot the earliest signs and movements of market change. Learning will come to rival the strategic planning function in its ability to collect external information and signals from the outside environment.
- 4. The primary responsibility for learning and performance support will be pushed to and shared by front-line managers.** Traditionally, learning has been the domain and exclusive preserve of human resources and other specialized training groups.<sup>53</sup> This will shift to become a shared responsibility with front-line managers who will become their key clients. This trend is being driven by the increasingly indistinguishable and interwoven nature of learning and production processes.
- 5. Individual employee learning support will become the single most important employee retention factor.**<sup>54</sup> In its own employee research, Accenture found that 82 percent of employees reported that the organization's increased commitment to ongoing learning would increase their personal job satisfaction.<sup>55</sup> This trend will add strength to the view of learning as an essential rather than a non-essential function, and it will push organizations to build out their learning agility capabilities as they participate in a global war for talent.
- 6. The lines between formal and informal learning will continue to blur and ultimately disappear.** Performance Support development and implementation teams will appear within the training function. This, coupled with integrated content development practices, will also blur the lines between training, publications, and support services functions.

- 7. The lines between learning and knowledge management will continue to blur and ultimately disappear.** As collaborative technologies develop, the fault lines that distinguish learning content development and management, and the broader practices of enterprise knowledge/content management that exist today are slowly disappearing. Structured and unstructured data will comingle, enriched by metadata and kept continually useful by knowledge management practices and associated technologies. Those using these integrated data will play a fundamental role in keeping information current and useful.
- 8. Learners will personalize their own learning and performance support experiences according to their dispositions and situational needs.** Personalized and customized offerings will include purposeful learner-generated content that employees produce for their own ongoing support, and which will in turn be made available to help other learners shorten their learning cycles and time to competency. They will need to learn how to learn more effectively and how to organize information for themselves. This will redefine and strengthen the functional role of LMS/Talent Management Systems. This trend is related to new research by Clayton Christiansen, Michael Horn, and Curtis Johnson in their book *Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns*, that acknowledges the prevailing educational system as a “factory model” and calls for a transition to modular and student-centric model.<sup>56</sup>
- 9. Organizations will increasingly emphasize learning through direct experience.** Because experiential learning “remains the keystone of a person’s brain development”<sup>57</sup> organizations will also move more aggressively to provide performance support to “scaffold” individuals in their efforts to learn and complete tasks that are otherwise unattainable on their own.<sup>58</sup> They will do so with the increasing use of multi-modal and action learning and performance support offerings to increase performance effectiveness and increase agility.<sup>59</sup>
- 10. Organizations will move en masse to reusable content and multi-channel publishing.** Reusability is defined as the process of “creating, organizing, storing, versioning and publishing reusable learning content in a common, central repository for the purpose of creating learning support, regardless of delivery format.”<sup>60</sup> The effectiveness of reusability is ultimately tied to retrieve- or find-ability. The demand and demonstrable financial return for providing current performance support at all five moments of need will more than justify the investment in this capability.
- 11. Organizations will increase their efforts to harvest the tacit knowledge of retiring workers with post-full-time employment relationships.** By definition, tacit knowledge is knowledge that resides in the minds of people. It is acquired in context, usually through informal experience, and based on relationships and specific circumstances. It is notoriously difficult to share and communicate. The ongoing challenge is that the majority of an organization’s knowledge assets exist in its people in tacit form. As the Nobel prize-winning economist Gary Becker explains, “people cannot be separated from their knowledge, skills, health, or values in the way they can be separated from their financial and physical assets.”<sup>61</sup> Given the inseparable nature of tacit knowledge assets, organizations will capture and make useful those assets by redefining and extending traditional employer/employee relationships. Organizations will increasingly retain retired employees as learning coaches and knowledge consultants to help transfer and harvest those tacit knowledge assets.

## Risks and Threats

- 1. Organizations that have been successful in the past will struggle to shed industrial learning mindsets and leadership behavior.** If we begin with the premise that an organization's chief impulse is to rest, success only compounds the problem. It induces a deeper state of complacency. When it comes to organizational change, technology, systems, processes, and structure can be changed quickly. Human behavior takes more time. But culture, meaning the underlying values, attitudes, and assumptions of people, lags everything else. For organizations that have been fortunate to compete in industries that are structured to return profits to even mediocre performers, a changing context quickly reveals outmoded learning mindsets and leadership behavior. Take, for instance, the American "Big Three" automakers: GM, Ford, and Chrysler. As the environmental context has shifted, all three find themselves not only in crisis, but also facing the painful reality that they have engendered low levels of enterprise learning agility, and are unprepared to respond quickly to new adaptive challenges. Clearly, they have not been on full alert status.
- 2. Most organizations will continue to resist investments in learning and knowledge management technologies based on a lack of anticipated return.** This comes as no surprise because so many organizations have had poor returns on learning investments in the past, and the issue of quantifying returns in the first place often remains fuzzy. Of the five factors, learning technology and organizational support require capital investment. In large organizations, the technology infrastructure required to capture, manage, and make useful an organization's knowledge assets is not insignificant. The situation is even more ominous for smaller organizations where the barriers to entry for creating high learning agility appear cost prohibitive. It doesn't help that organizations have placed big bets in the past on enterprise knowledge management efforts that have returned little or no value. As we mentioned in the trends section, organizations will turn to retiring workers for help. Ultimately, however, these strategies won't produce a high level of ongoing learning agility. In addition to the more intangible factors such as learning mindset and leadership behavior, high agility requires a comprehensive enterprise knowledge/content management strategy. The good news is that the journey can be made in phases. With the progress and demonstrable value of multi-channel publishing, the risk/reward equation is changing. Organizations who continue to resist technology and performance support investments will be taking the greater risk.
- 3. New private-public participation models in 3.0 are extraordinarily difficult to manage.** We hear a lot about the virtues of new private/public participation models in which organizations innovate through permeable and decentralized partnerships as in the case of open-source projects. But few have figured out how to do it well and profitably. As a recent McKinsey study reports, "Even the most advanced businesses are just taking the first few steps on a long path toward distributed co-creation."<sup>62</sup> The functional and legal issues associated with borders, rights, information, authority, incentives, control, time requirements, security, speed, and quality are daunting. Perhaps that is why Mitchell Baker, Chairman of Mozilla Corporation, claims that "the model of participation the organization has created is an even bigger contribution than their Firefox browser."<sup>63</sup>
- 4. Learning leaders aren't strategic enough to seize the opportunity.** The intensifying need for learning agility coupled with advancements in that direction provide an unprecedented opportunity for learning leaders to sit at the corporate leadership table and contribute greater strategic value than ever before. The question is, can they? Many want to, but they simply don't possess the business acumen and strategic understanding of their organizations and markets that are required to carry their own water at the senior leadership level. Further, the learning function as a whole in many organizations is severely unprepared for the opportunity to step forward. Many leaders in the learning function are still mired in tactical, process, and technology detail and have limited ability to contribute to vital discussions about competitiveness and growth.

5. **Unless the learning function gives serious attention to informal learning, its role will be marginalized in most organizations.** Learning departments must address head on the informal learning needs of their organizations, and in the process, take steps to integrate those efforts into their formal learning offerings. The five moments of need framework can provide significant help. Failure to address informal learning will dramatically retard any potential momentum towards learning agility. Learning organizations need to take steps to align their technologies and practices with the overarching quest for individualized and organizational learning agility. Otherwise, the technologies inherited from Learning Agility 2.0 will remain fragmented and will offer limited usefulness.
6. **A large portion of the existing workforce is on education welfare.** Much of the current workforce has for some time been conditioned into a state of learning dependency. Many people resist taking charge of their own learning because they have been socialized to be compliant and conforming in their learning patterns rather than assertive and self-directed. When we observe employees who have little or no intentional patterns of personal learning, we see two causal factors. One is a personal lack of self-motivation. But the other significant factor is the learning environment of the organization. It is still the norm in many organizations to control tightly the distribution of information, provide infrequent formal learning events, train for narrow technical and tactical skills, frown on anything that introduces variability into a system, and discourage real candor in communication. All or some of these conditions tend to breed dependent learners who are unlikely to assert themselves in ongoing personal learning. When notions of continuous learning are introduced, dependent learners are apt to steadfastly resist the efforts.

We expect that the largest cohort of dependent learners, consisting mainly of baby boomers, will gradually decrease as next generation learners enter the workforce. But organizations can't wage a war of attrition to resolve the problem. They don't have the luxury of waiting for generational replacement. Leaders have an urgent priority to recast the learning environment and assist less resilient and less agile learners to become more independent in their learning patterns. This can only happen if there is sufficient structure in place to support performance beyond the classroom--in the informal learning arena.

7. **Entrenched views about learning lead to siloed behavior.** The term "learning" in this report is used in its broadest sense. Too narrow a view divides rather than unites the full range of activities that need to take place under the umbrella of learning agility. For example, there remains the view that learning isn't learning unless someone internalizes knowledge or skills. We've defined learning agility as an organization's ability to continuously access, internalize as needed, and apply resources necessary to perform at or above the speed of the market. The implication is that the degree of internalization required in the "application of resources" is determined by what is required to perform effectively—nothing more, nothing less. The skills required to perform a job at any moment in time vary in the investment needed to achieve competent performance. For example, if all that is needed is a job aid, the response of the performer to that job aid must be viewed under this broader definition as a learning act. Therefore, any process, function, or organizational unit that provides support at any of the five moments of need is participating in the learning process.

The threat is that the formal learning function tends to become territorial and defensive of its role to educate and train the workforce. This implies that boundaries have been defined, which is at odds with collaboration. It would exclude other units that may be offering informal learning services and support. The result is more siloed behavior instead of the integration of the formal and informal learning arenas.

- 8. Failure to deliver clear strategic value in the past continues to plague the search for learning agility.** Historically, executive leaders have had the sense that learning is somehow strategically important, so they have invested out of faith and intuition. Accordingly, many have been stung with losses after significant outlays in various learning initiatives. Large organizations in particular have experienced negative returns on major learning technology investments such as reusable learning objects or the initial promises of eLearning replacing the classroom. As learning leaders align their efforts to deliver high levels of learning agility, they will have to face and overcome the lingering skepticism that still prevails in many organizations based on previous failures. The entire learning landscape will continue to become even more outcome-driven. Executive leaders will care even less about the process and the details of learning and even more about the outcomes it produces.

## Recommendations

In this section, we outline eight recommendations for leaders to improve the overall level of learning agility in their organizations. Clearly, organizations have limited execution capacity, so we suggest that you read through the recommendations and select two or three to guide your efforts in view of the needs and priorities of your organization.

- 1. Systematically incorporate action review into formal learning.** In the global age, workers must be able to extract and apply the precious knowledge that is embedded in both success and failure. That knowledge must be documented and transferred to others. Most organizations are a long way from this reality. As Learning Agility 3.0 progresses, organizations need to become far more serious and systematic about gleaning knowledge from ongoing operations. The deconstruction of failure is as valuable as the examination of success. Only a small percentage of organizations today have implemented formal postmortem evaluation processes. Senior leaders should institute and make mandatory both success and failure review processes. That process should follow a simple format and include the requirement that documented results are distributed to functional heads for approval. Of course the process is not without angst because it normally requires a transition period in which the organizational culture has to shift to a much higher level of candor. At the same time, it must create a safe environment in which failure within reasonable limits is permitted. Cultures that punish rather than permit bounded failure face a steep uphill journey in this area; leaders must remove the fear to act that always takes root in these environments. Finally, data gathered from action review must be added to the performance support infrastructure where it can be pushed and pulled to relevant situations.
- 2. Cultivate evaluation as an individual and organizational competency.** High agility organizations today are different from those who are not based on their evaluation capacity. They cultivate it as an individual and organizational core competency. Evaluation is the analysis and interpretation of performance. It is the study of relationships and causation. It is also the dispassionate and non-politicized consideration of contribution. Most individuals and organizations are profoundly poor at evaluation precisely because they were acculturated under a 1.0 learning tradition and mindset that emphasized “one-time learning for permanent qualification.” This mindset has conditioned individuals to evaluate both people and situations based on a slow-moving industrial context. As a consequence, many employees are dependent learners with old tools, old frameworks, and old criteria. Further, many employees are highly unskilled in their ability to evaluate themselves and their peers. Yet the skills of self and peer evaluation are vital when individuals and organizations are confronted with turbulent change. Evaluation capacity is a vital precondition to learning agility. It is the taproot of adaptive response and innovation.
- 3. Re-charter human resource, learning, and other support functions to support learning agility and the creation of human capital.** The transformation of the HR function is in its third stage. The first stage was to provide basic and tactical workforce services and support. The second stage was to create efficiency and effectiveness in those services by reducing administrative and transaction costs through process automation, standardization, shared service models, and outsourcing. Most HR departments have taken significant steps in this direction. The third stage of HR transformation is to elevate the function itself to a strategic role in which it contributes significant business impact through the acquisition, development, and retention of human capital. Progress in stage three is predictably slow because the nature of the transition is dramatic and fundamental.<sup>64</sup> But what halts the effort in so many organizations is the simple fact that they have not yet achieved clarity of purpose and priority.

Too many HR leaders and departments still spend most of their time and energy delivering basic services, with little time devoted to the strategic role.<sup>65</sup> For HR departments that are struggling to make the transition to a strategic role, we suggest that senior leaders push the departments through a re-chartering process in which they formally commission the function to fulfill the strategic role as the highest priority, while managing the operational role of providing basic services as a simple threshold requirement. Other training and support groups such as help desks and technical publications need to embrace this same mandate. If what these groups do doesn't contribute to people's ability to grow, respond, change, and innovate at or above the speed of the market, they are behind. Creating a shared strategic role will also drive the needed integration of these disparate groups that often exists throughout organizations.

- 4. Integrate learning and performance support to address formal and informal learning at all five moments of need.** The widespread recognition that most learning is informal is turning attention to developing performance support capabilities for informal learning. But the solutions identified must be implemented with formal learning still in mind. It is in the formal learning environment that self-directed learning and self-support are either initiated and reinforced or undermined. Self-directed learning, self-support, and learning collaboration must become primary instructional objectives in formal training. Employees should be trained to use performance support solutions that will be available to them when they're "on their own." Many need to learn how to become independent learners for the first time using those tools. They also need to learn how to collaborate in problem solving and ad hoc learning situations when necessary.

Historically, informal learning has been neglected in most organizations. For the most part, individuals have been on their own. Formal learning has done little to prepare them for their ongoing learning journey. Even today, when an employee steps out of the formal classroom, chances are that he or she will not be given any survival gear in the form of post-training support. For those who are given support, there is an even greater chance that the individual won't know how to use it and ask the right questions.

An integrated learning infrastructure is comprised of the tools, information, and survival skills employees need to contribute at a high performance level. In addition, the infrastructure must free-up people to focus on higher value efforts. Instead of spending time trying to remember something or perform a routine task, employees need to be free to focus on application, resolution, collaboration, prioritization, innovation, and creation. With the right infrastructure in place, people should learn quickly from their mistakes and then, with the right performance support infrastructure in place, contribute new knowledge to fill the gaps.

This blending of formal and informal learning requires a fresh look at the unique skills trainers bring to the organization. No other learning modality can diagnose problems, prescribe solutions, or give personalized feedback better than the skilled trainer. These capabilities define the unique and critical contribution trainers can bring to the learning table. The search for learning agility provides an opportunity to redirect the trainer's role from being the "sage on the stage" to a more enabling and coaching resource that helps learners grow in their capacity to be agile learners.

Learning Agility 1.0 was almost purely formal. Learning Agility 2.0 was primarily formal and haphazardly informal. In Learning Agility 3.0, the two must become inseparable. Organizations must address informal learning directly and use informal learning solutions to improve formal learning practices, including helping learners learn how to learn in their informal environments. This ultimately allows formal learning and trainers to become more integrated into the entire learning process as they help learners cultivate self-directed learning habits.

- 5. Cultivate an organizational culture and leadership behavior that supports learning agility.** Culture is about patterns. It's about what most people in an organization think and do most of the time. Whenever people come together to form a collective, a culture is born— not immediately, but gradually. It's the natural result of social forces exerted through every-day interaction. With time, patterns of thinking and behavior develop and calcify within the organization.

When any organization begins the pursuit of agility, culture will inevitably get in the way. For this reason, leaders need to identify cultural liabilities and turn them into cultural assets. Through deliberate means, organizations have the opportunity to design and cultivate the culture they need rather than live with a culture that blocks learning agility.

Culture change is a matter of finding the points of leverage that shape culture in the first place. Fortunately, those levers are the same regardless of the nature, composition, and purpose of the organization. There are of course differences based on industry and market, but the same basic set of levers shapes culture in every context. The most important levers of culture have to do with what is:

- Modeled
- Communicated
- Taught
- Measured
- Recognized
- Rewarded

Of all of the levers that shape organizational culture, the single most important is the factor of leadership behavior. Leaders shape culture through “modeling” or demonstrated behavior. Organizational cultures don't change unless leadership behavior is manifestly different and reflects the desired culture. But there is a caveat: Of all the categories of organizational change, changing culture is the most difficult because it is rooted in human behavior. A culture change effort should be expected to take longer and require more effort than other types of organizational change, such as changes to structure, process, systems, technology, capital assets, cost-cutting, and the like. Culture tends to preserve and protect itself against change. Over time, culture becomes hard and encrusted as thought and behavioral patterns become entrenched.

- 6. Continuously grow and manage unrestrained content capital.** Content becomes capital when it's captured and made useful to the organization. Content becomes unrestrained when it's free from proprietary formats or delivery forms. Learning agility requires that organizations continually capture content and make it available in many different forms that are tailored to the individual and role requirements of different people. And it all needs to be up to date. All of these content management requirements can be met with current technologies such as multi-channel publishing and user-generated content. Yet the movement toward content capital management has been slow because organizations have seldom been able to make the business case for the investment. What's changing this is the growing number of organizations who have been caught flat-footed when their markets are besieged with new entrants, disruptive technologies, or other unforeseen threats.

A growing number of organizations are able to cost-justify content capital management on the basis of multi-channel publishing alone. This is where content is developed and stored as a single-source and then transformed into other forms at any time. For example, a single-sourced procedure could be transformed into an online help file, a web-based learning course, an online reference job aid, and a PDF case-based practice guide. And since the content isn't locked into any proprietary format, the case-based practice guide could also be published out as a Word file in addition to the PDF file. This same procedure can also be pushed as data into a virtual lab where the lab scenarios would automatically incorporate the procedure into a practice scenario.

Contrary to popular thought, the challenge of content asset management is not with the technology; it is with the practices associated with how content has historically been created, managed, and produced into its various forms. Within most organizations there is significant duplication of effort. The elimination of that duplication, alone, often justifies the investment. There are significant efficiencies that can be brought to bear as well. A second, less quantifiable benefit is the ability to capture performer-generated content, which is becoming a crucial component of successful strategy execution.

- 7. Drive collaboration within and beyond the organization.** When organizations begin addressing the formal and informal learning needs of people, the strategic value of collaborative learning becomes clear. Ad hoc collaboration within and beyond the organization is crucial to organizational agility. Historically, this collaboration was limited to those within earshot of the individual employee. This so-called “sneakernet” support where peers helped one another based on geographic proximity has been shallow, random, and costly. Collaboration tools have dramatically changed the rules of the game. But the adoption of new collaborative technologies has been slow across the board. The primary reasons are limited demand and ineffective implementation. Organizations simply haven’t found the value proposition to engage most employees.

Part of the solution is to make collaboration readily accessible, intuitive, and helpful. Helpfulness is determined by an upfront assessment of collaboration needs at every level of the organization. The technology solution should be fitted to meet those exact needs. Virtual communities can become an effective way to drive collaboration within and beyond the organization. Certainly, Generation X, and to a greater extent, Generation Y have been weaned on these types of collaborative environments. But much of the current workforce is unfamiliar and uncomfortable with new forms of collaboration. Leaders have to be willing to make a significant training investment to help them adopt these new technologies.

- 8. Push ownership of learning to the front line and to the learners themselves.** Front line supervisors have the ability to see the immediate cause and effect of learning in the work place. They witness the application of new knowledge and skills and see the consequences. Not surprisingly, when front line managers believe that certain learning solutions will help their people be more successful in their work, they commit themselves to provide those solutions wherever possible. Because of this personal commitment and the unique line-of-sight vantage point of the front line manager, learning outcomes are usually stronger when managed at this level. A second point is that when employees are committed and independent learners, learning outcomes increase again.

As an example, in the early 1980s centralized computing groups were forced to transform their profession into a decentralized computing environment. They successfully integrated and learned to govern via a service model rather than by edict. The learning function faces this same kind of transformation. To capitalize on these two patterns, leaders must take steps to motivate and make accountable both front line managers and individual employees for the ongoing learning of line employees.

## Conclusion

The way forward is not an easy one. Organizations have not yet evolved to the point of becoming perpetually competitive and responding adroitly to adaptive challenge. Of course the completely agile organization represents a perfected and perhaps unattainable state of organizational evolution. Setting the ideal aside, most organizations have enormous amounts of low-hanging fruit to pick in their efforts to increase learning agility. There is much that leaders can do now to make step-change improvements.

What's universally true is that during the next decade organizations in every segment and industry will be sorely tested. Adaptive challenges will come with more speed and intensity than ever before. And the nature of those adaptive challenges will be unlike the past. We have witnessed in both 2.0 and 3.0 that organizations become stupendously deluded with a belief in technology, while the larger issue is usually one of mindset and leadership behavior. IBM's study on the adaptable organization concluded that "technology is not the primary barrier to collaboration," thus underscoring importance of the other factors such as leadership behavior and the prevailing learning mindset.<sup>66</sup>

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## Benchmarking Opportunity

TRCLARK is currently seeking organizations to participate in a year-long benchmarking initiative that will explore best practices in organizational learning agility. All participating organizations will take part in a comprehensive benchmarking study of organizational learning agility. In addition, TRCLARK will conduct monthly in-depth web-briefings in which participating organizations share progress and discuss developments in organizational learning agility. Finally, participating organizations will receive an exclusive final report, detailing findings and recommendations from the benchmarking study to help them create a roadmap to even higher levels of organizational learning agility. If you or your organization would be interested in participating in the study, please contact Dr. Conrad Gottfredson ([cgottfredson@trclarkglobal.com](mailto:cgottfredson@trclarkglobal.com) or 801-361-9914).

## End Notes

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- <sup>7</sup> See "Timeless Leadership: A Conversation with David McCullough." *Harvard Business Review*. March 2008, p. 46.
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- <sup>10</sup> See "Unlocking the DNA of the Adaptable Workforce: The Global Human Capital Study 2008," IBM Global Business Services, p. 28. "Inability to rapidly develop skills to address current/future business needs," is cited as the "primary workforce-related issue facing organizations." See also Christopher G. Worley and Edward E. Lawler III, "Designing Organizations that are Build to Change," *MIT Sloan Management Review* Fall 2006, Volume 48, No. 1, p. 19.
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- <sup>20</sup> Richard T. Pascale, Mark Millemann, and Linda Gioja. *Surfing the Edge of Chaos*, New York: Three Rivers Press, 2000, p. 35.
- <sup>21</sup> David A. Garvin, Amy C. Edmondson, and Francesca Gino, "Is Yours a Learning Organization," *Harvard Business Review* March 2008, p. 110.
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The individual and organizational applications of the concept, however, are importantly related. Both must rely on learning and adaption to maintain competitiveness.

<sup>23</sup> Jay Cross has chronicled the history of e-learning in particular and concluded that it has failed to meet expectations “at least half the time.” See Jay Cross. *The History of Elearning, The Future of Elearning*. March 26, 2004.

<sup>24</sup> [http://www.e-learningguru.com/articles/hype1\\_1.htm](http://www.e-learningguru.com/articles/hype1_1.htm).

<sup>25</sup> Gloria Gery. *Electronic Performance Support Systems*. Tolland, Massachusetts: Gery Associates, 1991.

<sup>26</sup> Gary Hamel with Bill Breen. *The Future of Management*. Cambridge: Harvard University Press, 2007.

<sup>27</sup> Malcolm S. Knowles, “Adult Learning” in *The ASTD Training and Development Handbook: A Guide to Human Resource Development*, Robert L. Craig, Ed., 4<sup>th</sup> edition, New York: McGraw-Hill, 2004, p. 262.

<sup>28</sup> Don Tapscott and Anthony D. Williams. *Wikinomics: How Mass Collaboration Changes Everything*. New York: Penguin Group, 2006.

<sup>29</sup> “Front and Center: Making P&G New and Improved,” *Time* April 28, 2008.

<sup>30</sup> Richard Florida. *The Rise of the Creative Class*. New York: Basic Books, 2002, p. 24.

<sup>31</sup> Keven Kruse, “The State of E-learning: Looking at History with the Technology Hype Cycle.” See [http://www.e-learningguru.com/articles/hype1\\_1.htm](http://www.e-learningguru.com/articles/hype1_1.htm).

<sup>32</sup> John Seely Brown and Paul Duguid. *The Social Life of Information*. Cambridge: Harvard University Press, 2002, pp. 201-202.

<sup>33</sup> Lowell L. Bryan. “Making a Market in Knowledge,” *The McKinsey Quarterly*, 2004, No. 3, pp. 100-111.

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<sup>35</sup> Jeffrey Immelt, “Top 10 Leadership Tips from Jeff Immelt,” *Fast Company* April 2004, p. 96.

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<sup>37</sup> Maria Bartiromo, “Jeff Immelt on the Nasty Surprise at GE,” *BusinessWeek*. April 28, 2008, p. 26.

<sup>38</sup> Ronald A. Heifetz and Donald L. Laurie, “The Work of Leadership,” *Harvard Business Review* January-February 1997, p. 124.

<sup>39</sup> Eric Hoffer (1902–1983), U.S. philosopher. *Reflections on the Human Condition*, aph. 32 (1932, 1973).

<sup>40</sup> Edgar H. Schein, “How Can Organizations Learn Faster? The Challenge of Entering the Green Room.” *MIT Sloan Management Review* Winter 1993, Volume 34, No. 2, p. 90.

<sup>41</sup> “Game Changers,” *Fortune*, July 21, 2008, p. 54.

<sup>42</sup> Our point of view is that a fruitful vein of future research will explore the relationship between learning and leadership in the context of developmental stages theory, such as Robert Kegan’s six equilibrium stages. See Robert Kegan. *The Evolving Self*. Cambridge: Harvard University Press, 1982.

<sup>43</sup> Joseph Kornik, “Accenture: Peter Cheese,” *Consulting Magazine* June 2008, p. 22.

<sup>44</sup> Nick Bontis, “Managing Organizational Knowledge by Diagnosing Intellectual Capital: Ramping and Advancing the State of the Field”, *International Journal of Technology Management*, 1999, Vol. 18 No. 5-8, pp. 433-62.

<sup>45</sup> Personalized e-learning allows content to be presented based on the learning patterns of the learner. For example, the sequence of instruction can be manipulated as well as the combination and patterns of text, speed, use of audio, video, graphic illustration, simulation exercises, and animation. In fact, the Academy for Engineering has identified “Advanced Personalized Learning” as one of the 14 “grand challenges” awaiting an engineering solution.” See <http://www.engineeringchallenges.org/cms/8996/9127.aspx> Canales, A. et al. 2007. Retrieved May 17, 2008.

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- <sup>56</sup> Clayton M. Christensen, Michael B. Horn, and Curtis W. Johnson. *Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns*. New York: McGraw-Hill 2008, p. 38.
- <sup>57</sup> Roderick Gilkey and Clint Kilts, "Cognitive Fitness," *Harvard Business Review* November 2007, p. 56.
- <sup>58</sup> See Janet L. Kolodner, et al., eds., "Special Issue: Scaffolding," *Journal of the Learning Sciences* Vol. 13. No. 3, 2004. See also Kishore Sengupta, Tarek K Abdel-Hamid, and Luk n. Van Wassenhove, "The Experience Trap," *Harvard Business Review* February 2008, p. 101. The authors state, "The studies we've conducted provide compelling evidence that learning on the job simply won't work in any but the most basic environments and that managers can continue learning only if they're given some formal training and decision support specifically tailored to the challenges they will face."
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