

# Digital Transformation of Corporate Learning: New Technologies, Rules and Culture

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## ABSTRACT

Considering the perspectives of digital transformation, the author concludes that becoming a digital enterprise requires far more profound changes than certain investing in the latest digital technologies. Human resources management is being pushed to take on a larger role in helping organizations to be digital. The process starts with digital transformation in HR including as HR leaders explore new technologies, platforms, and ways of working. Presenting the results of the study of the evolution of corporate learning, the author shows that currently corporate learning is undergoing significant qualitative changes related to the introduction of digital technologies. Traditional learning management systems are being complemented with and replaced by a wide range of new set of learning tools that provide curated content, video and mobile learning solutions, micro-learning, and new ways to integrate and harness the exploding library of external MOOCs and video learning available on the Internet. Digital technologies provide the emergence of new learning models such as micro-learning, self-serve learning, user-generated content, learning as entertainment. The author emphasizes that digital learning is not just a matter of replacing the learning infrastructure, acquiring new tools and teaching technologies. In fact, there were prerequisites for the formation of a new culture of continuous personalized digital learning with the distribution of responsibility throughout the company and the transformation of models and teaching methods, increasing the importance of social learning. The author is representing a model of employee-driven continuous learning with the widespread use of digital technologies, a new role of HR departments as content curators and facilitators of experience, developing innovative platforms that transform learning and development into self-regulating activities.

## Keywords

digital transformation of companies, digital HR, digital learning, mobile learning solutions, micro-learning, self-serve learning, user-generated content, learning as entertainment, new culture of learning.

## 1. INTRODUCTION

Digital Transformation of companies and even entire industries is one of the key trends of modern economic development. *Digital Transformation* is the process of shifting the organization from a legacy approach to new ways of working and thinking using digital, social, mobile and emerging technologies. It involves a change in leadership, different thinking, the encouragement of innovation and new business models, incorporating digitization of assets and an increased use of technology to improve the experience of the organization's employees, customers, suppliers, partners and stakeholders [1].

Executives in all industries are using new digital advances as well as improving their use of traditional technologies such as ERP to change customer relationships, internal processes and value propositions.

According to *Accenture*, the digital enterprise opens the door to new business models and processes, platforms for connected products, analytics and team work to increase productivity, the use of digital technologies could add 1.36 trillion dollars in 2020 to the GDP of the world's leading economies. On average, digitally mature companies are 26% more profitable than their industry competitors. But at the same, company, which is investing heavily in digital technology, but pays little attention to management, financial indicators are 11% lower; more conservative companies that improve only management, receive plus 9% to profit, but potentially can acquire by means of digital technologies three times more; those who have not yet chosen a development strategy have negative financial indicators compared to other market players - minus 24% [2, 3].

Becoming a digital enterprise requires far more profound changes than merely investing in the latest digital technologies. Digital management practices and agile organization design become central to business thinking. Human resources (HR) management is being pushed to take on a larger role in helping organizations to be digital. The process starts with digital transformation in HR, as HR leaders explore new technologies, platforms, and ways of working.

According to *Deloitte*, 56% of companies are redesigning their HR programs to leverage digital and mobile tools; 51% of companies are currently in the process of redesigning their organizations for digital business models; 33% of HR teams are using some form of artificial intelligence (AI) technology to deliver HR solutions, and 41% are actively building mobile apps to deliver HR services [4].

Digital HR is built on innovation and experimentation (*Table 1*).

## 2. EVOLUTION: FROM E-LEARNING TO DIGITAL LEARNING

Over the past decades, corporate learning has gone through several stages in its development, each of which is characterized by a certain set of used tools and technologies to support learning:

1) *Traditional training using computer technologies (1980-1990)* - presupposed the use of lecture, practical, laboratory and seminar forms of conducting classes in accordance with educational programs, computer technologies in the system of monitoring students' knowledge, multimedia elements in the educational process, personal computers (PC).

2) *The introduction of e-Learning into traditional and corporate learning (2000-2005)* - was involved the widespread use of presentation and flash technologies in the presentation of teaching materials, distance learning support tools (LMS), social learning platforms, changing the role of the teacher in the teaching process (teacher-tutor), development of media design and flash animation technologies in the development of electronic learning resources.

3) *Development of mixed forms of education and continuous (non-formal) education (2005-2010)* - presupposed the development of narrative media technologies with a planned scenario, the use of simulation models of technological

processes and technical systems in e-learning resources, social networks with specific tools (groups, forums, chats) for educational purposes, software for the development of educational materials (Breeze, Dreamweaver), the development of virtual links between teachers and students.

4) *Development of Collaborative and Mobile Learning (2010-2020 - forecast)* - assumes a wide use of mobile communications; virtual environment of YouTube and other tools with similar functionality, online video games and virtual experiences with full immersion in the subject area, creating communication for the sharing of knowledge, combining all forms of media with informal learning, on-demand training and integration programs.

Table 1. HR transformation in Digital HR

Old rules	New rules
HR departments focus on process design and harmonization to create standard HR practices	HR departments focus on optimizing employee productivity, engagement, teamwork, and career growth
HR selects a cloud vendor and implements out-of-the-box practices to create scale	HR builds innovative, company-specific programs, develops apps, and leverages the platform for scale
HR technology teams focus on ERP implementation and integrated analytics, with a focus on "ease of use"	HR technology team moves beyond ERP to develop digital capabilities and mobile apps with a focus on "productivity at work"
HR centers of excellence focus on process design and process excellence	HR centers of excellence leverage AI, chat, apps, and other advanced technologies to scale and empower employees
HR programs are designed for scale and consistency around the world	HR programs target employee segments, personae, and specific groups, providing them with journey maps relevant to their jobs and careers
HR focuses on "self-service" as a way to scale services and support	HR focuses on "enablement" to help people get work done in more effective and productive ways
HR builds an employee "self-service portal" as a technology platform that makes it easy to find transactional needs and programs	HR builds an integrated "employee experience platform" using digital apps, case management, AI, and bots to support ongoing employee needs

Currently corporate training is undergoing significant qualitative changes related to the introduction of digital technologies (new employee training systems are the fastest growing segment in IT spending) [5].

Traditional learning management systems are being complemented with and replaced by a wide range of new set of learning tools such as Pathgather, Degreed, SAP Jam, Oracle's Video Learning, Skillsoft's new learning platform, and Workday Learning. These tools provide curated content, video and mobile learning solutions, micro-learning, and new ways to integrate and harness the exploding library of external MOOCs (Massive Open Online Courses) and video learning available on the Internet. The fastest-growing segment in HR technology spending is now the adoption of new employee learning systems [6].

Such vendors, like NovoEd, EdX, Intrepid, Everwise and many others (including many LMS vendors) offer pathways, chapters, social features, and features for assessment, scoring, and instructor interaction. While many of these features belong in an LMS, these systems are built in a modern cloud architecture, and they are effective for programs like sales training, executive development, onboarding, and more.

Content companies, like SkillSoft, PluralSight, Lynda.com, CrossKnowledge, and others, offer integrated delivery systems with their content, so many of them actually have «learning experience platforms» and «micro-learning platforms» embedded in their solution. Axonify is a fast-growing vendor that serves many markets, including safety training and compliance training, where people are reminded of important practices on a regular basis, and learning is assessed and tracked. Vendors in this category offer LMS-like functionality, but in a way that tends to be far more useful and modern than traditional LMS systems.

If more recently companies were satisfied with the creation of virtual universities and online catalogs of courses, today corporate learning is seen as a highly strategic area of business, focused on innovation and leadership development, providing world-class training experience, long-term career development, integrating multifunctional teams for integration and teamwork. The development of interdisciplinary skills is crucial, because these opportunities are consistent with the transition of the organization to the network of teams.

Corporate training departments are gradually evolving from providers and training organizers to content curators and facilitators of experience, developing innovative platforms that transform learning and development into self-regulating activities and help employees «learn to learn» [8]. At the same time, employees should be considered as internal clients interested in quality independent learning, development of their professional skills as a condition for a successful career.

There is a serious shift in focus from internal corporate programs aimed at developing people to platforms through which people can develop themselves. The availability of mobile devices makes training potentially available to everyone at any time. Companies either create their own training platforms, or use ready-made proposals, trying to seamlessly integrate internal and external content.

### 3. CORPORATE LEARNING BECOMES PERSONAL, SOCIAL, MOBILE AND CONTINUOUS

Among the main trends of corporate digital learning are the following:

- *Micro-learning.* Small number of tasks (it may be a video, a blog, or a set of instructional questions) that can be performed within a few minutes, usually instructions are issued for such tasks, the reading of which takes no more than 5 minutes. It may be a video, a blog, or a set of instructional questions. It can mean segmenting a longer course into small lessons, which the employee could view over lunch or in the evening from home.
- *Self-serve learning.* Just-in-time learning is critical when learning needs accelerate. Companies can help by providing continually updated tools and content that can be accessed from any device, at the moment of need. It's the best way for learning departments to keep up with employees' needs; you can schedule only so many Webinars and classroom training courses. It is combined with micro-learning since it does not require much time to complete. For example: CGI, a global IT consulting company with 68,000 employees, adopted a cloud-based learning platform to bridge the gap. The system, which can be personalized to the learner, includes video-based courses and online-learning rooms to foster social learning opportunities with other students and instructors. CGI is now training 50% more consultants, and learners are consuming 50% more training content than in the past.
- *Training specific positions.* For example, in the Russian market, companies that use e-learning to train management staff - middle and senior managers with the

help of specially designed for them training programs, simulations, complex cases and other materials are represented in companies with large staff Junior posts that are prone to frequent rotation, e-learning is often used as the only economical training tool, whereas higher-level personnel pass full-time education with invited trainers and if they are sent for professional development to specialized centers).

- *User-generated content.* The employee independently selects the tasks that he needs to perform, or the tasks for him are selected by the recommendations algorithm; training includes a feedback and evaluation system. Today's learning architecture is digital marketing: it embraces many types of content, it collects data on interactions and activities, it uses intelligent systems to promote content and monitor employee usage, and it is personalized for everyone. For example, IBM introduced Your Learning, an internal tool powered by Watson cognitive technology that provides access to personalized talent development strategies for every employee. Your Learning created a personalized, curated learning environment for each of IBM's 375,000 global employees. The online interface responds swiftly and flexibly to changing technical and business requirements, based on each learner's profile, while the tools can search both structured and unstructured data sets to bring together online content and key resources when they are needed.
- *Learning as entertainment.* Gamification and «serious games» are the viable tools for corporate learning. For example, Deloitte developed its own training program, which uses gaming to simulate real work situations and improve the quality of training; new employees at Canadian telecommunications company TELUS earn badges as they complete different orientation tasks, such as creating a profile on the corporate social network. Training is also starting to incorporate virtual reality. For example, the U.S. military is using a gaming platform that incorporates avatars to create simulations that train soldiers to deal with dangerous or problematic situations. Adding an element of fun and recognition for reaching milestones is important for capturing the attention of younger workers who have grown up on games and apps.
- *Social learning.* Learning is an emotional experience and most people don't want to be alone when they learn. In that regard, social media models can be profoundly valuable because they foster sharing and collaboration, which helps employees retain the knowledge they gain through formal training programs. That's why social collaboration platforms have become as important to the overall learning strategy as the specific types of training delivery methods themselves. For example, GE launched the "Brilliant U" online training platform with video support, which is actively used by company employees (last year, according to company information, about 30% of employees downloaded their training content for other employees).
- *Cross-platform.* The ability to open training materials on different types of electronic devices - mobile phones, tablets and computers, so that the use of different devices does not affect the quality of content).

It is important to emphasize that digital learning is not just a matter of replacing the learning infrastructure, acquiring new tools and teaching technologies. In fact, there were prerequisites for the formation of a new culture of continuous personalized «smart» digital learning with the distribution of responsibility throughout the company and the transformation of models and ways of teaching, increasing the importance of

social learning (training from person to person, when the role of mentors are not professional teachers but practitioners). The key principles on which the new culture of learning is based are: the desire of the individual to learn and absorb new information freely, free access to knowledge, an individual approach to training employees, mutual training of the group or community.

Economics Workforce 2020 survey found that the top concern of employees is the risk of becoming obsolete; nearly 40% of North American respondents said that their current skills will not be adequate in three years, and only 41% of global respondents said that their companies are giving them opportunities to develop new skills [9].

The opportunity to learn is seen as one of the main factors for ensuring the involvement of personnel, forms the key values of employees, and not simply serves as a way to improve skills and acquire new knowledge. But today's modern learner is short of time, rushes to learn, and wants to learn his or her own way. People need structured education and training as much as possible.

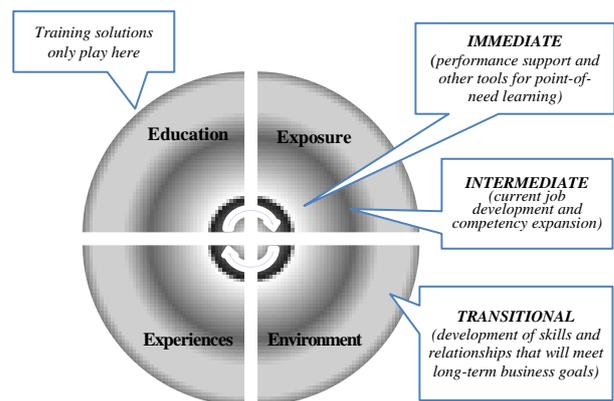
According to *Josh Bersin*, model of employee-driven continuous learning involves (*Figure 1*) [10]:

*Education* (formal training),

*Experiences* (developmental assignments and projects),

*Environment* (a culture and work environment that facilitate learning),

*Exposure* (connections and relationships with great people).



*Figure 1.* Moving towards Employee-Driven Continuous Learning

Blending formal and informal training, as well as offline and online training, is a historical trend that will continue. Ideally, online learning should be interspersed with in-person educational experiences, whether that's attending a classroom training or meeting with a mentor.

The implementation of one of the principles of «smart learning» - the mutual learning of a group or a community - requires an atmosphere of openness in the company, the infrastructure for online communication (forums, voice communications, private messages, etc.) and offline (premises and time for joint activities).

In order to help employees «learn to learn» the training and development departments must create internal knowledge-sharing programs, develop easy-to-use portals and video sharing systems, and promote collaborative work that helps people learn and share knowledge continuously and fosters a culture of common use and free exchange of information, distributed decision-making.

Modern digital learning might contribute to a corporate culture emphasizing talent management adapted to market changes and opportunities for business.

## 4. CONCLUSION

Analysis of the main trends of corporate digital learning allows us to draw the following conclusions:

1. The pressure on organizations to improve learning and development continues to intensify. It is pushing companies to develop new ways to put employees in charge of the learning experience and foster a culture of learning throughout the organization.
2. The ubiquity of always-connected mobile devices makes learning potentially available everywhere and accessible to everyone at any time. Employees can now take a course on nearly any subject online, search for an expert video or podcast to learn a quickly needed skill. This new world of consumer-centric learning puts employees, not L&D departments, in charge.
3. Employees at all levels are demanding access to dynamic learning opportunities that fit their individual needs and schedules, self-directed learning environment. To meet these requirements the learning environment feels like a consumer website that provides videos, courses, content, and access to experts—as well as recommendation engines that help people find precisely what they need.
4. Supporting this new vision, learning and development organizations at these innovative companies are adopting new and expanded learning architectures. To facilitate the effort to help employees “learn how to learn,” L&D teams are building internal knowledge-sharing programs, developing easy-to-use portals and video sharing systems, and promoting collaborative experiences at work that help people constantly learn and share knowledge.

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