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# Training Delivery Methods Implemented by American Companies: Opportunities and Challenges in Context of Knowledge Society

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**Abstract:** The radical transformations caused by the rapid development of information and communication technologies in the mid-1990s prompted the transition to the knowledge society which identified the key role of knowledge as the most important and valuable capital of organizations and had a decisive impact on the development of corporate training. In our study, we aimed to analyze the training methods used in American companies in the knowledge society, particularly, their feasibility, features, benefits and possible limitations. The results of our study show that, at present, e-learning is considerably more widely used in American companies than instructor-led classroom training. Most organizations use blended learning which implies the combination of e-learning methods and instructor-led learning methods. A powerful stimulus for the wide implementation of e-learning methods was produced by the COVID-19 pandemic when the use of educational technologies made it possible for the companies not only to continue training and development of their employees but also to implement tactical and strategic practices which will have long-term implications for the future of the training industry. The most widely used e-learning methods in American companies are virtual classroom/webcast, online or computer-based methods, social learning, augmented reality, virtual reality, and artificial intelligence. In spite of certain limitations of e-learning methods, they have a number of important benefits which allow companies to expand access to training, save costs, increase adaptability and flexibility of learning programs, etc., and thus satisfy their needs in qualified employees.

**Keywords:** *corporate training; e-learning methods; instructor-led classroom training methods; American companies; knowledge society.*

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## Introduction

The radical changes caused by the rapid development of information and communication technologies in the mid-1990s prompted the transition to the knowledge society which identified the key role of knowledge as the most important and valuable capital of organizations. The processes of globalization and computerization of business, and the development of the knowledge society have given rise to a new type of economy – the knowledge-based economy, which implies that the basis of contemporary socio-economic development is knowledge. In these conditions, there is a growing demand for new approaches to human resource development as a necessary condition for the competitiveness of organizations and sustainable economic growth of the society.

Human resource development is a primary focus of contemporary companies which is realized through corporate training. According to research (Stuart, 2010), companies in developed countries consider corporate education as a strategic tool to achieve the company's corporate goal and spend 5 – 10% of the payroll fund on training and development. Each employee has the opportunity to study from 26 to 41 hours per year (Gallie, 2007). In post-industrial countries, the provision of governmental support for the development of corporate training as part of continuous vocational training is an important aspect of the national policy which is regulated by legislation.

The study of the best practices of corporate training in developed countries is important from the perspective of their use in broader business and national contexts. The American experience may be particularly valuable since the United States is a country that has achieved leading positions in the global economy, and gained worldwide recognition for the effectiveness of its corporate education and training. It also has the biggest number of corporate universities in the world which provide a high level of competitiveness and efficiency of companies and employees.

The knowledge society based on the development of information and communication technologies had a decisive impact on the development of corporate training. While in 1980 – 2000 corporate training was mainly carried out with the use of traditional methods, under the guidance of a trainer, and was only supplemented by the use of various technologies, such as CDs, videotapes, and television, at the beginning of the 21st century, the possibilities of using technology were significantly expanded. The concept of “e-learning” emerges, which means a new model of learning in organizations and marks the beginning of fundamental changes in it. The widespread use

of information technology in education, which has radically changed its organization, has become a determining factor in the current stage of the development of corporate education in the United States.

Technological advancement is an integral part of globalization. With sophisticated state-of-the-art technology, multinational companies conduct meetings, carry out all their business activities, overcome spatial barriers and save time and money. The combination of globalization and technology is fundamentally changing education. As pointed out by Mason (2000), media technologies contribute to the transnational cycling of textual information, images, and artifacts (p. 744). Companies offer online training for their employees, providing uniform standards of educational programs, irrespective of where they operate, and thus not only create opportunities for the production of high-quality goods and services in different countries but also contribute to the welfare of citizens.

A role of a catalyst in the use of technologies in corporate education was played by the COVID-19 pandemic. Because of health measures taken by governments around the world, corporate training, along with the whole educational sphere, became one of the most severely hit sectors of human activities. According to Kshirsagar, Mansour, McNally & Metakis (2020) at the beginning of the pandemic in March 2020, about 50 % of in-person programs were postponed or cancelled in North America and almost 100 % of such programs – in parts of Asia and Europe. However, businesses “can’t push the pause button on capability building, so the moment belongs to virtual learning” (Kshirsagar, Mansour, McNally & Metakis, 2020, p. 1). To continue the delivery of training in conditions when saving the lives and health of employees is prioritized, the companies adapt their programs and courses as well as their delivery methods, which leads to the establishment and wide expansion of virtual learning that becomes even more popular than before the pandemic. In this context, **the purpose** of our study was to analyze the learning methods used in American companies in the knowledge society, particularly, their feasibility, features, benefits and possible limitations.

## **2. Distribution of learning hours between the traditional instructor-led classroom and e-learning: current trends**

The analysis of the literature shows that at present, corporate training creatively combines traditional and innovative methods of learning (Taylor, 2017; Noe, 2010; Schneider, 2016). Traditional methods include lectures, workshops, seminars, presentations, demonstrations, and discussions. They are most often used to transfer and reinforce knowledge.

Traditional (including the classroom) learning is carried out by the teacher and students who are physically present at a certain place (Gaither, 2009). Historically, it has been the main way to carry out educational activities in the corporate environment. According to Anderson (2014), in most companies, the traditional learning is exceedingly popular for most content areas and for most students, primarily due to its advantages such as direct interpersonal interaction between all participants in the learning process, opportunities for discussion, debate and immediate feedback, as well as being in a classroom atmosphere away from the stresses of the workplace.

However, over the last decade, this trend has changed significantly. Face-to-face, instructor-led classroom learning had been steadily losing its popularity even before the pandemic. Thus, according to the Association for Talent Development (2020) and American Society for Training & Development (2013), in 2019 the percentage of hours of traditional classroom training comprised only 40%, compared to 54% in 2012 and 65% in 2006. On the contrary, the e-learning methods were used more and more widely and in 2019 accounted for 60% of the learning hours, almost 20% of all the learning time being spent in virtual classrooms (compared to 11% in 2018). Virtual classrooms are currently used by 70% of organizations. With the onset of the pandemic, the trend toward the decrease in the learning hours used in the traditional instructor-led classroom accelerated dramatically and in 2021 they accounted for only 30% of all hours delivered (Training magazine, 2021).

Studies show that this reduction in hours of traditional classroom training is primarily due to the high cost and lack of convenience of this training. Anderson (2014) points out that the choice of teaching methods in companies always depends on the content of the programs. Most often, such training is preferred for the development of interpersonal communication skills in business, which involves live, interpersonal interaction among students and teachers. However, based on the experience of the recent years, we can also add that this reduction is also caused by important objective factors, such as the COVID-19 pandemic which made the physical presence of trainees and trainers in the classroom impossible due to health protection measures and related to them transport restrictions. In these conditions, e-learning remains the only choice in the training sector.

E-learning is flexible, adaptable and accessible. In 2021, as we have mentioned before, e-learning accounted for 70% of all learning hours which were delivered with the following technology-based methods (Training magazine, 2021):

- 41% – blended learning (a combination of traditional instructor-led classroom and all the e-learning methods listed below);
- 37% – virtual classroom/webcast (instructor from remote location), up from 23% in 2020;
- 34% – online or computer-based methods (no instructor), vs 29% in 2020;
- 4% – mobile (mobile phones, iPod, tablets, PDAs), down from 10% in 2020;
- 9% – social learning, compared to 3.5% in 2020;
- 1% – augmented reality;
- 2% – virtual reality;
- 3% – artificial intelligence (the last three methods are new and were not widely used. Their implementation increased only slightly compared to the previous year).

Blended learning for all or almost all training time (90-100%) was used by only 15% of companies. Considerably more organizations (50%) used it for 10-29% of their training.

### **Mobile learning: advantages and features**

Mobile learning or m-learning (using mobile phones, smartphones, tablets, iPods, PDAs, netbooks, laptops) has been introduced particularly rapidly in recent years, as organizations offer more and more training courses based on mobile applications, which are becoming an integral part of life in contemporary society. In this context, we would like to focus on mobile learning which has become a new important milestone in the development of education in general and corporate education in particular and occupies an important niche in e-learning. Mobile learning is a type of e-learning using mobile devices, which is at the intersection of the mobile computing environment (use of small, portable and wireless computing and communication devices) and e-learning (learning with the use of information and communication technologies) (Corbeil & Valdes-Corbeil, 2007).

The need for mobile learning continues to grow with the growing number of the mobile workforce outside the traditional training campus, and this process is only accelerating in the context of the global dissemination of information. According to nationwide ASTD surveys, only 15% of companies used mobile learning in 2010, but 57% predicted that their organizations would develop mobile applications over the next three years (American Society for Training & Development, 2011). The following year (in 2011), the number of companies which used mobile learning increased significantly to 28% (American Society for Training & Development, 2011).

According to Training magazine, in 2021, mobile learning accounted for 4% of all training hours in American companies (down from 10% in 2020 and up from 1.8% in 2015 (Training magazine, 2015; Training magazine, 2021).

We can suppose that the reduction of mobile learning hours in 2021 can be explained by the factors which, according to ASTD (American Society for Training & Development, 2013), hinder the use of mobile learning in organizations: budget constraints, privacy considerations, lack of information technology needed to support mobile learning, the difficulty of integrating it into learning management systems, and policy issues, which, in our opinion, were aggravated during the COVID-19 pandemic. However, despite some difficulties in implementing mobile learning, organizations are convinced that mobile technology will significantly improve the training of their staff in the coming years.

### **Opportunities for distance learning in the knowledge society**

Educational technologies open wide opportunities for the development of distance learning, which plays a special role in corporate education. Distance learning is a general term that covers a wide range of learning activities in which a student is at a distance from the teacher or other students (Hoyle, 2007). The US Distance Learning Association interprets distance learning as the provision of education or training by electronic means, including satellite, video, audio graphic and multimedia computer technology (Leonard, 1996).

The implementation of distance learning began with the first correspondence courses, which appeared in the late 19th century. At present, distance learning takes place with the use of virtual classrooms that use photography, animation, video, audio discussions between instructor and student, exchange of computer programs, use of instant polling technologies, electronic “whiteboard” (Clark, 2005). Distance learning is widely used in both private and government sectors in the United States. Many companies openly share their successful experience in this field. These include Daimler Chrysler and General Motors, Ford, Boeing, Novell, MCI World Com, Dunkin Donuts, the World Bank, the U.S. Department of Defense, the U.S. Department of Energy and the Environmental Protection Agency (EPA) which use these technologies to train and improve the skills of workers (Chute, Thompson, & Hancock, 1999; Burgess, & Russell, 2003).

### **Advantages and limitations of using technology in corporate training**

The main advantages of e-learning in organizations are that it allows providing unified training programs for employees in different countries, reducing the time required for training, creating the most comfortable conditions for students, minimizing student overload with information, reducing costs, including transport expenditures and spendings related to the absence of an employee from the workplace during training, quick program content updating. These benefits are best realized when the number of students is large, students are geographically isolated, and there is a frequent need for learning (Welsh, Wanberg, Brown, & Simmering, 2003). Learning with the use of technology ensures the timeliness of learning, gives students the opportunity to study the skills which are the most relevant for them at a particular time and expands access to resources.

An important advantage of technology-based training is digital collaboration, i.e. the use of technology to help and empower people to work together, regardless of their geographical proximity. Such digital collaboration technologies include electronic text messaging systems, video conferencing systems, online learning communities that provide access to interactive discussion forums for the exchange of learning resources, and document exchange systems. Digital collaboration can be synchronous (real-time) and asynchronous (non-real-time) (Salopek, 2000; Noe, 2010). According to Tyechia (2014), most technology-based learning is carried out asynchronously. It is flexible and able to better adapt to customer needs. Students may start, stop or resume such training whenever they wish and in any place convenient for them. When learning is conducted synchronously, it allows all participants in the learning process to interact with each other in real time.

The advantages of e-learning methods were most fully used during the COVID-19 pandemic. Companies not only perform tactical tasks but also take strategic measures which will have long-term implications for the future of the industry based on the experience of the present situation. Kshirsagar, Mansour, McNally and Metakis (2020) single out six best practices, ranging from tactical to strategic ones which help to create a new foundation for effective virtual learning. These practices include:

- establishing cross-functional learning-response teams, which are composed of representatives of all relevant stakeholder groups: HR business partners, learning-delivery personnel, IT and platform technologists, and vendors. These teams create a comprehensive picture of learning offerings and ensure their adaptation to a new environment;

- protecting employees in in-person programs, which implies the precautions, such as social distancing, enhanced cleaning and sanitization procedures and other measures;
- adapting delivery, for example, decentralizing in-person events, addressing the limitations of using virtual live sessions such as webcasts, virtual classrooms, and video- and audioconferencing by considering what can be done before, during, and after the session to maximize its impact;
- promoting and enhancing digital learning, which is particularly relevant in conditions of travel restrictions and work-from-home policies. Organizations are using digital learning to increase the sense of community among colleagues who no longer work in a co-located workplace, expand collaboration among teams that work remotely and cooperate in virtual formats (such as videoconferencing and instant messaging);
- exploring alternative digital learning strategies, for example, virtual-reality training simulations and higher-end moderated virtual classrooms which enable new and different ways of engaging learners;
- practising and preparing for multiple outcomes, which implies that in any extraordinarily uncertain situation, scenario planning should be part of any approach (Kshirsagar, Mansour, McNally & Metakis, 2020).

However, along with many benefits, learning with technology also has its drawbacks. Rao (2011) showed that 67% of participants believed that it lacks the “human touch” needed to create an effective learning environment and that it cannot provide opportunities for human communication, debate, discussion, and knowledge sharing between students and teacher. However, the latest advancements in telecommunications and increasing the speed of computer processes have significantly improved the level of interpersonal interaction between all participants in the learning process.

It is important to note that experimental studies show ambiguous results in the comparative analysis of the effectiveness of different teaching methods. Some studies (Brown & Haag, 2011; Maki, Maki, Patterson & Whittaker, 2000; Hoekstra, 2001) show the advantages of e-learning over traditional learning. Other studies (e.g., Williams, 2009), on the other hand, show that traditional learning is more effective than technology-based learning. Some scholars do not find any significant difference between the effectiveness of traditional learning, technology-based learning, and blended learning (Strother, 2002; Russell, 1999; Tyechia, 2014; Wegner, Holloway, & Garton, 1999). However, there is a steady and clear trend toward increasing the share of e-learning in organizations due to a number of benefits such as cost-effectiveness, increased access to education, time savings, ease of use

and opportunity for students to study in a convenient mode, ensuring uniform standards of educational programs and diversity of their content, etc.

## **Conclusions**

Thus, in the knowledge era, American companies effectively combine traditional instructor-led classroom training and e-learning. A vast majority of organizations do not use one of these methods, but a combination of them, i.e. blended learning. For a long time, the traditional instructor-led classroom training was the most widely used method in American companies. However, with the rapid development of knowledge and globalization, especially since the early 2010s, a steady trend toward the reduction of classroom learning hours and the increase of e-learning hours have been observed. This trend was substantially strengthened by the onset of the COVID-19 pandemic during which technology-based learning methods account for 70% of all the learning hours in organizations. The main benefits of the creative implementation of e-learning methods in American companies are: expanding access to training through placing the learning resources on the Internet, and, accordingly, significant savings in costs; creating opportunities for learning irrespective of the geographical proximity of the trainees, increasing adaptability and flexibility of learning programs; addressing the needs of learners and contemporary businesses; ensuring uniform standards of educational programs and diversity of their content in all branches of international companies throughout the world, use of interactive learning technologies, including distance learning and group learning. Thus, training in American companies in the knowledge era has been in constant dynamic development, which ensures the competitiveness of American companies and the national economy.

This study has made certain input in the development of the theory and practice of corporate education. The current trends in the use of traditional and e-learning methods were highlighted. The literature on the advantages and limitations of using technology in corporate training was extended. The role of the COVID-19 pandemic as a catalyst in the use of technologies in corporate education was featured. The findings presented in the article can have practical value for specialists and students in corporate education.

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