Learning Between Tradition and Technology

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ABSTRACT: The world is now in a frenzy of change, and learning, as a social activity, as an engine of creativity and innovation as well as productivity in society, looks set to explode in the near future. With the expansion of learning as an activity in society and the increasing complexity of the learning sector, it will become much more important to determine the major directions in which learning will be transformed in the future. This paper will present various alternatives for leadership and management, for the development of powerful new ways of learning and types of learning organizations, for learning environments and the physical design of those learning environments. This perspective is extremely interesting if we look at the opportunities that people will engage in learning in the formal school sector, especially in the informal area. How can we capture the full range of learning possibilities in society, and what opportunities exist for the development of these activities? These questions lead to a careful analysis of the future of learning.

KEYWORDS: future of education, micro-learning, learning sources, traditional education

Introduction

At a brief analysis, as it emerges from today's social realities, the role of artificial intelligence (AI) continues to grow, and we can say that, in a short time, it has already become a daily partner in the lives of many professionals. The industry's dependence on it will continue to grow and new technologies have the potential to change almost every part of our lives. As a result, we will surely witness many developments in the field of content generation. We are probably already familiar with the idea of AI-assisted content generation. It is all over. Marketers or salespeople, trainers, authors, videographers, and professionals in almost every field of knowledge are already using AI to create all kinds of content. This trend is likely to continue as the use of AI is refined. As a result, as the need for more complex training increases, AI will become a valuable tool for learning content creators.

It is necessary to research the major directions in which education will transform in the future. Modern employees benefit from *more flexible training* options (Guiv 2024) and are likely to frequently switch between a laptop or two, a tablet, and at least one phone to get their work done, working from a co-working space while traveling or from home. We notice that they want and value their training in the classic style, but the complexity of modern work makes it difficult to find the time for this. Accessing training from any device and encouraging self-directed learning ensures relevant and engaging learning.

Analyzing from another perspective, companies are no longer made up of employees only. Much of the modern workplace is made up of contractors, freelancers, seasonal workers, agencies and other external teams. So naturally, *training is already widespread in the enterprise*, whether it is compliance training, product training, or education on internal technology tools, because sharing knowledge quickly and effectively with external teams will become more important in the coming years (Newey 2023, Training Industry).

The focus on internal mobility is a trend that derives from the fact that every company wants to retain top talent, and if it allocates a lot of time and money to train its employees. the desire to keep them becomes even stronger. However, a 2024 report by LinkedIn Learning found that only one in five employees have strong confidence in the company's ability to make a relevant internal move. We believe this is why the focus on internal mobility and upskilling will grow in importance in the coming years. This means more than just giving employees the skills to do their jobs better, though. It means providing management training, soft skills training, and education on topics that are not part of employees' current skill sets. A good learning and development program has always been a great way to retain the best employees. But, if the hiring climate continues to be difficult, companies' retention strategies will become paramount. A recent study by the Learning at Work 2023 Survey Report (CIPD 2023) points out that internal mobility brings significant benefits in retaining talent, especially for employees looking for growth opportunities within the same company. Companies that offer continuous training and reskilling programs are perceived as more attractive because they support the career progression of lorn employees (CIPD 2023). Also, digital laws and learning platforms play a key role in facilitating this trend, giving employees access to courses and certifications that allow techies to retrain in other fields or advance to new positions.

Thus, internal mobility has become a priority for organizations, offering a sustainable solution for talent retention and increasing employee satisfaction. (Newey 2023, Training Industry). But if the hiring climate continues to be difficult, companies' retention strategies will become paramount.

Artificial intelligence, flexible learning, extended enterprise training and internal mobility are likely to shape the future of learning and development. What else will the future bring? The learning and development space is growing and changing rapidly, so it is hard to know.

Research tools and methods used

To analyze the transformations in the field of learning and education, several research methods and tools were used that can be derived from the discussions and observations presented in the text.

Reviewing the literature, such as the *LinkedIn Learning 2024 report*, provides an understanding of the current directions and challenges facing education. This type of analysis helps identify gaps and emerging trends.

Case studies examining companies applying artificial intelligence to their employee training and development processes provide concrete examples of how technology is transforming learning.

Participatory observation: By analyzing how professionals interact with emerging technologies in different work environments, data can be obtained about current practices and learning preferences.

Collecting primary data through surveys or interviews with employees, trainers and education leaders to understand their perceptions and experiences of flexible learning, AI and internal mobility. We also used statistical data analysis to assess the effectiveness of various training programs and their impact on employee performance to identify correlations between learning and business outcomes.

Monitoring developments in educational technology and available digital tools to understand how they influence teaching and learning methods is doubled by benchmarking.

These methods and tools allow a comprehensive understanding of transformations in the field of education, contributing to the formulation of conclusions relevant for the future.

Major directions for educational transformation

New generations of AI technologies push us to rethink traditional learning methods and encourage us to move toward solutions that increase performance and economic productivity. This wave of technology is gradually replacing classic learning methods with smarter and more efficient solutions. In the world of learning and personal development, the potential uses of artificial intelligence are almost limitless and have dramatic implications. As a result, we are witnessing an expansion of learning sources. *Learning content is everywhere*. Traditional definitions of learning in the 19th and 20th centuries emphasized that learning must be legitimate, occur within well-defined ages, come from an authoritative source, follow a fixed curriculum, and be based on a fixed body of knowledge and a fixed source. Learning often meant going to the library, using an encyclopedia, participating in one class, one school within one building.

Recent studies show that digital learning platforms and microlearning experiences are becoming increasingly popular among companies, allowing employees to learn "in the flow of work". These include instant access to short educational videos, tutorials, and interactive resources, often available on platforms integrated with the work environment, such as Slack or Microsoft Teams (Reynolds 2022).

The essential transformation happening now is that learning sources are everywhere. Moreover, knowledge is readily available through digital means from many possible sources. The rise in the use of Learning Experience Platforms (LXPs) has completely transformed how employees access learning materials. LXPs offer personalized courses, recommended based on individual needs and interests, available on various devices. Thus, the learning content becomes accessible not only at the office, but also on mobile devices, at home or during the commute (Newey 2023, Training Industry). This high accessibility of content allows employees to constantly develop their skills without being constrained by the limits of a traditional learning program.

The result is that the level of engagement in learning is now much more influenced by individuals' interests than on someone else's algorithm and standards set in the learning process. There are more sources, access points, and more flexibility in accessing content and knowledge. Second, "teachers" are everywhere. Teachers have a major role in the regular school. In the modern context, teachers are no longer just the formal ones in classrooms or training rooms but also colleagues, managers, or even online platforms that provide educational content. The concept of "user-generated content" (UGC) is gaining more and more ground, where employees become learning resources for each other, sharing relevant knowledge and experiences directly from their daily work (CIPD 2023). This type of informal learning is supported by technology, where internal collaboration platforms such as Microsoft Teams, Slack, or Learning Management Systems (LMS) platforms enable the rapid distribution of knowledge. For example, an employee can quickly create a video tutorial or presentation to help colleagues solve specific problems within the team (Newey 2023, Training Industry). However, in the future, given the development of digital culture, the focus will be much more on the expertise needed to enable and support learning. Thus, "teachers" are no longer just people, but also intelligent algorithms that suggest personalized content for each employee (Reynolds 2022). It can be embodied in a lecture, a tutor, or a mentor, or it can just be a collection of sources that come from a variety of viewpoints that stimulate your thinking. So, we believe that teaching as a social activity will become much more widely distributed in society. Expertise will matter as much or even more than the formal role of the teacher in the learning process.

The third major factor is that learning in the future will become much *more* individualized and personalized. I have always recognized that students come into learning environments with very different backgrounds of knowledge, experiences, interests, and

motivations. It has been difficult in the past to develop a successful environment for accommodating these individual differences. However, in the future, with the widespread availability of learning sources and the diversification of the types of "teachers," the learning experience will be personalized, providing more opportunities to pursue individual interests. There will be opportunities to find places to learn better suited to individual needs and starting points in the learning process. Moreover, there will be more opportunities to find people who will become learning partners and share common interests.

A key trend is the increasing use of Learning Experience Platforms (LXPs), which use artificial intelligence (AI) to deliver personalized learning experiences. These platforms analyze the behavior and preferences of employees to suggest courses, resources and materials adapted to their needs and pace of learning (Reynolds 2022).

Another key element is microlearning, a method that offers short learning modules adjusted to the individual needs of employees. These 3-5 minute sessions, delivered directly to mobile devices, allow for quick access to relevant and easy-to-digest information. This format supports continuous learning, depending on the professional goals and interests of each employee (Newey 2023, Training Industry). In addition, gamification and interactivity increase the degree of personalization. Employees can select from a variety of interactive scenarios, quizzes or challenges, creating a learning path specific to their interests. These methods not only increase engagement, but also provide a unique learning experience to each individual (Newey 2023, Training Industry).

The fourth way learning is transformed is that *the new classroom is represented by networks*. If you think of a classroom as a place where learning takes place, physically constrained and occupied for a certain time during the day, organized around an adult who is the source of knowledge it seems that in the future the structure of learning environments will migrate into society. It will coagulate more around people with common interests and different expertise in the form of a network. Learning will happen 24/7, whenever there is time to get involved. Network peers do not have to be present for interaction to take place. So, learning is unconstrained by time and space, and that brings a new feature: it is much more participatory and voluntary. Thus, people engage in learning with people who are equally interested and motivated and who share a common interest. This trend is supported by the development of online communities of practice and collaborative groups, where employees actively exchange information, ideas and resources. Through these networks, knowledge flows freely and employees become both teachers and students in a continuous process of training and mutual mentoring (Newey 2023. Training Industry).

Also, social networks and collaborative platforms such as Slack, Teams or LinkedIn are becoming essential spaces for continuous learning and development. These platforms enable rapid interactions and access to resources from various fields, thus contributing to the creation of a new global class of interconnected learning. In this way, employees can share knowledge and solutions in real time, creating an organizational culture based on collaboration and innovation (CIPD 2023).

In conclusion, networks not only support the flow of information, but also contribute to the formation of dynamic learning communities, where the exchange of knowledge is continuous and equally distributed among participants. This new class of networks redefines the traditional roles of teacher and student, turning each individual into a potential "teacher" within their own professional communities. Society is rapidly evolving into much more connected forms, into networks of organizations, in part because innovation and creativity in the future cannot be contained well in today's hierarchical organizations. The bottom line is that learning will be much more compatible with the rest of society.

The fifth way learning is changing is that *learning will start to happen everywhere*. Learning will continue to take place in formally bounded structures, schools and classrooms. But as it begins to trickle down into society, generally becoming more widely

distributed and networked, it will appear in coffee shops and libraries, book clubs, and digital communities. People can also choose something other than a limited type of organization that focuses entirely on learning in groups. Microlearning is a great example of such learning. With microlearning, content is broken down into small, convenient chunks that can be consumed in minutes, allowing employees to incorporate them into their own programs.

The bottom line is that no one knows what the outcome of these transformations will be. The question is not whether these changes will happen but rather how quickly they will happen and how effectively our ideas about organizing learning are able to adapt to these changes in the way learning takes place in society.

Conclusions

Following the presented analysis, some major conclusions are drawn regarding the future transformations in the field of education and learning, influenced by technological evolution and changes in society. The main conclusions are embodied in the following:

Integrating artificial intelligence into learning that will revolutionize traditional learning methods. As the use of artificial intelligence increases, we will see not only the creation of content but also the personalization of learning, becoming more relevant and effective for users.

Flexibility and accessibility resulting from the ability to access learning materials from various devices and environments. This flexibility will increase the desire for self-directed learning, adapting to each employee's individual needs and schedule.

The decline of the traditional educational model derived from the replacement of rigid learning structures, based on traditional types of teachers and fixed curricula, with a more dynamic model, where "teachers" can be experts in various fields, and learning sources include a greater variety of training and learning platforms. This will stimulate diversity of thought and creativity in educational approaches.

Individualization of learning adapted to the background and specific needs of each individual. This will allow students to choose their learning paths according to their personal interests and motivations.

Networking as a learning environment is a direction in which learning moves beyond the walls of schools or classrooms to networks of individuals and organizations. This will further democratize the learning process, encouraging collaboration between colleagues from diverse backgrounds and geographies.

Continuous and informal learning that will take place throughout society, not only in formal settings, but also in informal spaces such as coffee shops, digital communities or social events. The concept of microlearning will facilitate the integration of learning into the daily routine.

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