David Pontoppidan and **David Everhart** say that a solid understanding of the basics of learning is now in place and technological aids are increasingly available. Now is the time to put them together into blended learning journeys that deliver high and lasting impact

Digital learning

How to train for long-term impact

Globally, the return on investment from e-learning is fading. In 2016, global revenues for self-paced e-learning reached $46.6 billion, a stagnant development from $46.9 billion in 2015. By 2021, worldwide revenues for e-learning are expected to decrease to $33.4 billion with negative growth especially present in countries that currently have some of the highest spends on e-learning.

To enable long-lasting, high-impact behaviour change digital learning must involve a process over time that includes participation, interaction, coaching, feedback, team-based problem solving and other forms of human collaboration.

Scientific basis

More than 60 years ago, Benjamin Bloom and a committee of educators devised what we now know as Bloom's taxonomy - a classification of educational learning objectives into levels of complexity and specificity that has since become a foundation for educational communities around the world.

According to this taxonomy, people's cognitive domain progresses from remembering, to understanding, to applying knowledge, to analysing, to evaluating and finally to creating new things and concepts based on the knowledge.

The lowest level of Bloom's taxonomy is reached through passive learning assets – books, lectures, videos and so on. Reaching higher levels of learning requires collaboration and interaction, mentoring and, most importantly, challenging assignments and application opportunities. Traditional e-learning, which rarely moves beyond one-way information sharing, typically fails to incorporate what Bloom and his colleagues wrote about 60 years ago and what sounds like common sense to us today.

The 70:20:10 principle

The 70:20:10 principle applies to all learning that creates a true developmental effect and anchors new behaviours.

According to this principle, first proposed by McCall, Lombardo and Eichinger 20 years ago, only about 10% of development comes from formal learning programmes.

People gain about 20% of development from key relationships: studying and working with others who can model effective behaviours and give feedback.

These mentoring and coaching interactions are critical to one's development. The lion's share of development, the remaining 70% of skill and competence learning, comes from on-the-job activities: having challenging assignments that require new skills and behaviours.

In the midst of the discussions concerning face-to-face vs digital learning, the key question in our view is "What works best?" Although technology is constantly evolving, the human brain has changed very little in the past one hundred years. Although technology-enabled learning methods add valuable tools, people still learn in much the same way they always have. The goal of corporate learning is to combine all available methods, including traditional and technology-enabled, to maximise cost and time efficiency and effectiveness.

77%

By 2021, worldwide revenues for e-learning are expected to decrease to $33.4 billion from high of $46.9 billion in 2015

70%

According to McCall, Lombardo and Eichinger, only about 10% of development is from formal learning programmes, 20% from key relationships, and the remaining 70% comes from on- the-job activities: having challenging assignments that require new skills and behaviours

What are the different types of technology-enabled learning approaches?

Although these terms tend to be used interchangeably, we distinguish among four different types of technology-enabled learning:

Traditional e-learning: This is built on the assumption that individuals can acquire knowledge by clicking their way through a fixed one-way online programme. A large amount of content is presented over the course of several lessons, either in written or spoken monologue form. Some limited engagement is mimicked through simple comprehension tests. Learners are expected to click through a fixed number of modules. Typically success is measured by the accuracy of one's answers on the final multiple-choice test.

Digital learning: This is asynchronous, self-paced online interactive learning, typically conducted over several modules. The modules are tailored to the participants' mastery level, learning styles and motivations. Multiple learning instruments are used, allowing for instant interaction, questions and group reflection. The modules are designed to create engagement, interaction and a lasting learning impact that can be transferred to the participant's everyday context. Analytics, gamification, coaching and mentoring can be included as elements.

Virtual learning: This is similar to digital learning in terms of flexibility of location, but is synchronous and not self-paced. Virtual learning utilises online digital platforms (like Webex or Adobe Connect) and involves a live facilitator who interacts directly with participants. Virtual learning often includes breakout rooms and other elements that encourage peer-to-peer discussions and other interactive learning methods.

Blended learning: This is learning that blends together traditional in-person, virtual, and digital learning. This approach takes advantage of all methods to create high-impact, time and budget efficient, programmatic interventions that permanently anchors learning and behaviour change.

90%

Ebbinghaus' Forgetting Curve tells us that up to 90% of everything we learn today can be lost within a week. We believe, and the 70:20:10 principle reinforces this idea, that lasting impact comes when digital learning is anchored in people's daily activities

A vision of digital and virtual learning that creates long-lasting impact

Learning is not a destination, it is a journey.

Our view is that future digital learning requires a shift towards an employee-centric approach, with Bloom's taxonomy as its basis. We believe that future sustainable digital learning should focus on social, collaborative and interactive elements. Learning as acquisition and learning as participation are not mutually exclusive approaches.

Digital learning must provide opportunities for applying newly-introduced skills and behaviours to the learner's actual work environment. In this approach, individuals should be able to "pull" online learning just-in-time. There need to be built-in opportunities for learners to receive real-time coaching and personalised advice on how to use the knowledge in their own context at the times when learners need it.

Ebbinghaus' Forgetting Curve tells us that up to 90% of everything we learn today can be lost within a week. We believe, and the 70:20:10 principle reinforces this idea, that lasting impact comes when digital learning is anchored in people's daily activities. Learning content should be available in an interactive format that allows learners to select what they need to learn and how they collaborate with others on the development journey.

This learner-centred focus requires dynamic and flexible approaches from learning providers, both in terms of technology and in terms of design. Technology can further be used to facilitate learning by screening the learners' level of mastery and motivation before and after their learning experiences.

The importance of people analytics

Intelligent use of analytics allows pre-assessment of learners' interest levels and insights into how to build development journeys that fit learning style, motivation and pace.

When used correctly, there is strong potential for using analytics in digital learning processes. Currently there is an increasing demand for linking people analytics to organisational results. Learning platforms must be able to collect and manage relevant data on people's learning and the data should be available real time. Here are three ways organisations can use data proactively:

1. To measure the competencies, behaviours, motivation and skills important to the organisation's strategic direction.
2. To map employee consumption of internal development programmes and from this create suggestions for in-role application of new learning. This enables the entire organisational to support development.
3. To understand what the employee population is seeking to learn by surveying what people are searching for from work-based devices. This can uncover new demand-generated areas for development focus.

Flipping the classroom

Just-in-time approaches to learning and analytics raise new expectations of instructors and trainers. For a long time in professional training and development there has been a focus on the transition of the instructor's role from that of a teacher to that of a facilitator, helping learners through their learning journeys. Nowadays, organisations also expect the facilitator to be a coach and potentially a mentor.

Digital learning methods greatly enable the "flipped" classroom. Instead of passively consuming learning through listening to lectures, learners can access pre-screened ("curated") information through watching videos, reading articles and so on. Following this, learners should be given an opportunity to reflect collectively and personalise and apply the new knowledge together with a coach and other learners online.

The coach and other learners become the participants' developmental relationships. In the interactive sessions, it is essential to focus on applying the topics discussed and converting them into on-the-job actions.

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Gamification and the Proteus effect

Gamification can help engage learners further and make the successful transfer from online environments to real life. Learning journey designers should, however, handle the gamification process intelligently and keep in mind that behaviours seen in online simulations are not always directly compatible with people's real life behaviours. This is known as the Proteus effect, when people create an altered "online" version of themselves. Transfer of the newly learned behaviours should be accompanied by professional guidance, reflections and coaching along the learning path to bring learning into the real business world.

Conclusion

All these individual factors are extremely important for achieving long-term impact with digital learning experiences. In traditional face-to-face learning experiences, we consider and design for individual differences, cultural aspects and learning styles. This must also be done when designing digital and virtual learning journeys.

We see the need for agility as a core requirement in designing digital learning solutions that have a lasting impact. A focus on learners' motivations and on supporting them throughout their journeys is key. Technology only enables and facilitates the process.

Solid understanding of the basics of learning is in place. The pieces of the technological puzzle are available. It is time to put them together into learning journeys that deliver high and lasting impact.

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