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# Digital learning

Explores the different types of digital learning, its benefits, challenges and effectiveness

## Introduction

Digital learning has progressed rapidly since the term 'e-learning' was first used at the turn of the century. It now includes anything that embraces learning through technology, such as websites, ebooks, social media and online communities, online lectures, webinars, podcasts and microblogging. It's become a viable way of training and developing people in organisational settings, and one that's become indispensable in responding to the COVID-19 pandemic.

This factsheet defines digital learning and examines the three broad categories: formal, informal, and blended or supported learning. It investigates the role of social media, technological developments, and new forms of digital learning, before considering its benefits and drawbacks. The factsheet concludes by exploring the recent trends such as the wider use of collaborative technologies and approaches to learning.

The CIPD is at the heart of change happening across L&D, supporting practitioners in providing insights and resources. Connect with us through our [Leading in Learning network](#).

## What is digital learning?

Whilst there's no universally accepted definition of digital learning. We consider it to be learning that's facilitated, enabled or mediated using electronic technology for the explicit purpose of training, learning or development in organisations. Examples of digital learning include using a website, ebooks, online communities or a distinct piece of online learning.

This is an 'inclusive' definition: it includes the use of distributed technology products that don't require the user's computer to be connected to a network, for example, to download materials. An 'exclusive' definition would cover only learning delivered through

the Internet or an intranet (which could be termed 'online' learning).

The term e-learning ('electronic' learning) first emerged around the year 2000, although if distributed technology products are included in the definition, it could stretch back several decades with the use of CD-ROMs, for example.

Digital learning has progressed to cover a wide range of formal course-based e-learning packages and products, together with a huge variety of complementary or alternative techniques, such as sharing knowledge or links to resources via social/interactive media sites and viewing/participating in online lectures, webinars, podcasts or blogs. More recent trends include the development of gaming technology to support learning, artificial intelligence, virtual reality and the use of cloud computing, that give the potential to deliver learning according to user needs via the Internet rather than by in-house computing systems. The growth and development of different types of digital learning is rapid and constantly changing. It's also central to the Digital Working core knowledge and Learning and Development specialist knowledge of our [Profession Map](#).

## Types of digital learning

Advances in technology have produced different types of digital learning. Much early experience focused on web-based modules accessed at an individual's computer - the traditional 'click next, quiz at the end' style experience, whose focus is often more on compliance than learning. However, as a learning tool, digital learning is much broader. There are three broad categories of practice, although definitions vary and overlaps exist between categories:

- **Formal digital** - where technology is used to deliver formal course-based content (for example 'Introducing GDPR') to the end user without significant interaction with (or support from) training or learning professionals, peers or managers. A significant industry has grown up around this type, spanning electronic content authoring, content asset management, instructional design and learning management. Formal provision now covers a huge variety of subjects from accountancy and IT, to management and communication techniques.
- **Informal digital** - where technology provides opportunities to support informal workplace learning, mainly through forums. In many knowledge-intensive organisations, informal digital learning is linked with knowledge management. The collaborative media approach (see below) can play an important role in knowledge-sharing among professional communities. The rise of informal networking via online tools enables knowledge-sharing within organisations as well as externally. [Visit the CIPD Community](#).

- **Blended or supported learning** - where formal and/or informal learning may be combined ('blended') with other types of learning. For example, the majority of learning content might be delivered through face-to-face lectures or coaching and/or through text material, but the dialogue with other learners, collaborative activities and searching for/access to supporting material are all conducted online. A popular blend is the 'flipped' classroom model where the knowledge transfer is done online asynchronously with the discussion on that learning done synchronously, face-to-face or in a virtual classroom.

## Social media

The increase in use of social and interactive media brings opportunities for collaboration, co-creation and sharing of content, and enhanced communication through the Internet or via intranets. It's important to remember that social media is not itself a type of digital learning, but a tool which can be embraced for learning. Nor is social media learning the same as social learning, which is simply people learning from people, with technology providing the tools that enable it to happen more widely.

Terms such as 'social media', 'social networking' or 'interactive media' are often used interchangeably, all loosely referring to the 'second-generation' (Web 2.0) of Internet-based communities that encourage interaction and collaboration between users. This contrasts with the earlier model (Web 1.0) which focused on the one-way generation and publication of online content. There are now examples of Web 3.0 learning, where the web is connective and intelligent. Artificial intelligence is becoming more commonplace and is helping to sift through the huge volumes of data now available online - for example, platforms using browsing history to make suggestions for purchases (sometimes referred to as the 'netflix of learning').

Social and interactive media play an increasingly important role for HR and L&D in a range of ways, including recruitment, engagement and employee voice/communications, along with learning and development options. Organisations who've embraced social tools have found definite benefits. Our reports [Social media and employee voice](#) and [Putting social media to work: lessons from employers](#) share our analysis of using social media and its wider organisational benefits. Organisations should consider whether to introduce policies and guidelines which set expectations and limits on employees' use of the Internet and social/interactive media during work time or when communicating on behalf of the organisation. Alternatively, organisations may decide that as these tools are available in the wider context of their employees' private lives, there's no need for strict guidelines. Read our factsheet on [HR policies](#).

## Forms of digital learning

Organisations use a range of technologies to facilitate learning:

- Virtual learning environments, online 'classrooms', webinars and other forms of networked e-learning.
- Social media apps including Twitter, LinkedIn and Facebook.
- Integration of smartphone technology into the learning environment apps, such as kahoot and sli.do.
- Artificial intelligence and machine-based learning in the e-learning environment to 'push' or suggest relevant content and resources to employees.
- Opportunities for knowledge-sharing and management made possible by the fusion of various technologies.

The report also identified potentially significant developments including:

- Possibilities for the use of artificial intelligence and machine-based learning in the e-learning environment.
- Opportunities for knowledge-sharing and management made possible by the fusion of various technologies.
- The future emergent environment of game-based learning with a focus on user experience.

The 2010s saw an increase in the provision of Massive Open Online Courses (MOOCs), accessible to everyone, and often with an unlimited number of participants. We offer two MOOCs through the Open University's Future Learn Platform: an introduction to [people management skills](#), and [HR fundamentals](#).

Find out more in our factsheet on [learning methods](#).

## Benefits and challenges of digital learning

The benefits of digital learning include:

- Possibilities of global connectivity and collaboration opportunities.
- Ability to personalise the learning.
- Opportunities for peer-to-peer learn via digital social channels.
- Available 'just in time' and can be used continuously for learning and reference.
- Flexibility of access from anywhere at anytime.
- Ability to reach simultaneously an unlimited number of employees, even in dispersed locations or complex organisational structures.

- Uniformity/consistency of delivery of training/learning.
- Potential to achieve cost reductions/cost-effectiveness, which may be perceived as especially important during adverse economic circumstances.
- Possible reduction in the time taken to deliver learning content.
- Ability to log or track learning activities.

However, making digital learning available to unprepared and unsupported learners is unlikely to be effective. Any online learning must be appropriately presented, and adequately resourced including learner support.

Perceived barriers/challenges to the effectiveness of digital learning in organisations include:

- Limits of existing technology infrastructure.
- Allocating time – that is, ensuring learners make the time to participate, as it can be easy to overlook digital learning opportunities conducted from the employee’s desk in favour of completing work tasks.
- Providing appropriate support for learners.
- Distinguishing between differing performance gaps to identify where digital learning may be appropriate.
- Finding relevant and high-quality content in line with company brand.
- Gaining line manager support and commitment.
- Lack of access to IT facilities and/or basic IT skills in some employees.
- Potential employee hostility towards e-learning among certain groups or individuals, particularly if there is a history of ‘click next, quiz at the end’ compliance e-learning, or a fear of sharing knowledge via social tools.
- Motivating learners to complete courses.
- Lack of digital learning design capability in the L&D team.

## **Effectiveness of digital learning**

Our 2021 [Learning and skills at work](#) survey data indicates the considerable growth in the use of some learning technologies mainly due to responding to the COVID-19 pandemic. However, technology such as AI (artificial intelligence) and VR (virtual reality) is still in early stages of uptake. Our [learning cultures](#) research also demonstrates the role digital learning plays in creating an effective environment for learning.

Our report [The future of technology and learning](#) offers five ‘lenses’ in which to view embracing digital learning:

- Considering the organisational context.

- The needs of the learner.
- The purpose of the technology itself.
- Learning principles and evidence (about how people learn).
- Trends in technology.

The report states that regardless of any digital platform, the first consideration is the needs of the organisation and how technology will best meet that need. It also asks the L&D community to focus on the needs of the learner before any consideration of the technology.

Our report with the IES on [Digital learning in a post covid-19 economy](#) explores how digital learning can be further enhanced. It recommends that digital learning is a part of an overall learning philosophy and working out which types of learning are best suited to digital platforms rather than transferring all face-to-face content online 'as is'. Watch our [video on why is a learning philosophy so important for organisations](#).

Our [Professionalising L&D](#) report showed that L&D practitioners are not good at investing in themselves. With digital learning moving at pace, it's vital that L&D professionals invest in the skills and capabilities to harness its potential. Five of the key skills L&D professionals consider a development priority relate to digital learning. While most consider the delivery of virtual classrooms is key, only about one third have the necessary in-house skills to offer that opportunity. Similarly, while most want to develop digital content, less than one third feel able to do so. The same is true of those who would like to use social media in learning, recognise the need to support learners online, and would like to provide online or blended delivery.

## Recent trends in digital learning

It is important that L&D professionals develop their skill set in the digital space and embrace the value of the social aspects that digital learning offers. Our [Professionalising L&D](#) and [Learning and skills at work](#) reports highlight the work needed in these areas. And our report the IES, [Digital learning in a post covid-19 economy](#), re-iterates many of comments made in this factsheet, such as focus on learners and not being blinded by the technology.

The use of tools such as artificial intelligence and virtual reality are on the rise. Some organisations, ranging from fast food chains to mining companies, retail firms and travel organisations are all using interactive virtual reality-based 3D learning environments as cost effective, engaging L&D offerings to their workforce. All this makes learning more personal for learners, using the technology to replicate the employee context. As these products become more mainstream, they reduce in cost and increase in popularity.

## Further reading

### Books and reports

BEEVERS, K., REA, A. and HAYDEN, D. (2019) *Learning and development practice in the workplace*. 4th ed. London: Kogan Page.

LANCASTER, A. (2019) *Driving performance through learning*. London: Kogan Page

PARRY-SLATER, M. (2021) *The learning and development handbook*. London:, Kogan Page.

WHEELER, S. (2019) *Digital learning in organisations: help your workforce capitalise on technology*. London: Kogan Page.

Visit the [CIPD and Kogan Page Bookshop](#) to see all our priced publications currently in print.

### Journal articles

FARAGHER, J. (2018) Why fresh approaches to L&D are presenting new problems. *People Management* (online). 25 October.

HOWLETT, E. (2020) Has Covid-19 sparked an L&D revolution? *People Management* (online). 4 June.

HOWLETT E (2020) Many firms slow to adopt virtual learning, report finds. *People Management* (online).8 June.

MCKAY, F. (2017) Digital in L&D – friend or foe?*People Management* (online).31 March.

CIPD members can use our [online journals](#) to find articles from over 300 journal titles relevant to HR.

Members and *People Management* subscribers can see articles on the [People Management](#) website.

### Podcasts

[The Learning and Development Podcasts from Loop](#)

[Good Practice podcast from Emerald Works](#)

This factsheet was last updated by David Hayden.