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23 Jan 2019

Digital learning

Explores the different types of digital learning, and the benefits, drawbacks and effectiveness of digital learning

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Introduction

Digital learning has progressed rapidly since the coining of the term 'e-learning' at the turn of the century and now encompasses websites, ebooks, social media and online communities, online lectures, webinars, podcasts and microblogging. As such, it has proven to be a viable way of training and developing people in organisational settings, and one that forms part (though not all) of an organisation's wider learning strategy.

This factsheet offers a definition of digital learning in line with recent developments in both technology and the field of digital learning. It examines the three broad categories of practice in digital learning: Formal, informal and blended or supported learning, and investigates the role of social media and technological developments in digital learning. It outlines new forms of digital learning, and considers the benefits and drawbacks. The factsheet concludes by exploring the recent trends that are shaping the discipline, 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. We are proud to be at the '[epicentre](https://www.cipd.co.uk:443/learn/people-development-epicentre/)' of this changing world of L&D (<https://www.cipd.co.uk:443/learn/people-development-epicentre/>).

What is digital learning?

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Digital learning embraces more than e-learning. There's no universally accepted definition, but we consider it to be learning that is delivered, 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 (or '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 rapidly to cover a wide range of formal course-based e-learning packages and products together with a huge variety of complementary or alternative e-learning 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.

Types of digital learning

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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 'How to use Excel') 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 in e-learning now covers a huge variety of material ranging from 'hard' skills such as accountancy or IT to 'soft' skills as management and communication techniques.
- **Informal digital** - where technology provides opportunities to support informal workplace learning. In many knowledge-intensive organisations, informal digital learning is linked with knowledge management. The collaborative media approach (see below) often plays a particularly 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. Organisations who engage in online networking and learning are finding it popular and worthwhile.

[Visit the CIPD Community \(http://www.cipd.co.uk/community/\)](http://www.cipd.co.uk/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 face-to-face.

Social media and Web 3.0

With the huge increase in the use of social and interactive media come new 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, websites using browsing history to make suggestions for purchases.

Social and interactive media (and more recently emerging technologies) play an increasingly important role for HR and L&D in a range of ways, including recruitment, engagement and employee voice/communications, as well as learning and development issues. Organisations who've embraced social tools have found definite benefits. Our reports [Social media and employee voice \(http://www.cipd.co.uk/knowledge/work/technology/employee-voice-report/\)](http://www.cipd.co.uk/knowledge/work/technology/employee-voice-report/) and [Putting social media to work: lessons from employers \(http://www.cipd.co.uk/knowledge/work/technology/social-media-report/\)](http://www.cipd.co.uk/knowledge/work/technology/social-media-report/) 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 \(http://www.cipd.co.uk/knowledge/fundamentals/people/hr/policies-factsheet/\)](http://www.cipd.co.uk/knowledge/fundamentals/people/hr/policies-factsheet/).

Forms of digital learning

Our report [From elearning to 'gameful' employment \(https://www.cipd.co.uk/443/knowledge/hr-learn-develop-database/\)](https://www.cipd.co.uk/443/knowledge/hr-learn-develop-database/) examined progress in the types of digital learning available to organisations, focusing on such issues as:

- virtual learning environments, webinars and other forms of networked e-learning
- social media such as Twitter, LinkedIn and Facebook
- integration of smartphone technology into the learning environment and the use of 'apps' (mini-programmes or applications designed for smartphones).

The report also identified potentially significant developments including:

- possibilities for the use of artificial intelligence and machine-based learning in the e-learning environment
- the 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.

Since the publication of this report there's been a rise in Massive Open Online Courses (MOOCs), which are accessible to everyone, and often have an unlimited number of participants. Some organisations are now offering MOOCs to their

employees as a form of learning, either by directing them to relevant course content, or developing bespoke 'corporate MOOCs'.

Find out more in our factsheet on [learning methods](http://www.cipd.co.uk/knowledge/fundamentals/people/development/learning-methods-factsheet/) (<http://www.cipd.co.uk/knowledge/fundamentals/people/development/learning-methods-factsheet/>).

Benefits and drawbacks of digital learning

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The benefits of digital learning, and in particular of certain formal types of e-learning, include:

- 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 training
- ability to log or track learning activities, including capacity for HR or learning departments to check electronically that all relevant employees have completed compulsory training modules
- possibilities of global connectivity and collaboration opportunities
- ability to personalise the training for each learner
- ability to peer-to-peer learn via digital social channels.

However, it's clear that making digital learning available to unprepared and unsupported learners is unlikely to be effective. Any online learning must be appropriately presented and adequately resourced.

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

- limits of current 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 learning needs to identify where digital learning may be appropriate – for example, certain online learning techniques may be more suited to 'hard' rather than 'soft' skills
- finding attractive, relevant and high-quality content
- gaining line manager support and commitment
- lack of access to IT facilities and/or basic IT skills in certain sections of the workforce
- 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 department.

Effectiveness of digital learning

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Our survey data indicates that there has been considerable growth in the use of learning technologies and yet that this type of learning is rated comparatively lowly when ranking 'most effective' types of training.

Our report [The future of technology and learning](http://www.cipd.co.uk/knowledge/work/technology/future-technology-learning/) (<http://www.cipd.co.uk/knowledge/work/technology/future-technology-learning/>) comments on technology allowing self-directed learners can access learning when they need it and thus impact on their performance. The report goes on to highlight the intention in organisations to use mobile and collaborative learning.

Mobile learning came out top of those digital methods most likely to have the greatest impact in the next five years, followed by virtual classrooms, use of social media and webinars. Pure e-learning courses are projected to be less popular possibly due to many such products often being too generic and unengaging for learners.

The [L&D: evolving role, enhancing skills](http://www.cipd.co.uk/knowledge/strategy/development/roles-skills-report/) (<http://www.cipd.co.uk/knowledge/strategy/development/roles-skills-report/>) report again highlights that confidence and competence of learning and development professionals in using learning technologies is holding back the effectiveness of digital learning. This is seen repeatedly each year in the [Towards Maturity benchmark reports](https://towardsmaturity.org/2017/11/27/ld-where-are-we-now/) (<https://towardsmaturity.org/2017/11/27/ld-where-are-we-now/>).

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. Traditionally 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.

Recent trends in digital learning

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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.

Our [L&D: evolving roles, enhancing skills](http://www.cipd.co.uk/knowledge/strategy/development/roles-skills-report/) (<http://www.cipd.co.uk/knowledge/strategy/development/roles-skills-report/>) report, produced in partnership with Towards Maturity, details common skills and capabilities gaps in developing and deploying digital learning, with case studies from organisations that are succeeding in digital learning transformation.

The CIPD-sponsored Towards Maturity In-focus report [Preparing for the future of learning](http://www.cipd.co.uk/knowledge/strategy/development/future-learning-leadership-perspectives/) (<http://www.cipd.co.uk/knowledge/strategy/development/future-learning-leadership-perspectives/>) has a section dedicated to equipping L&D for the future of learning which highlights the dangers of ignoring digital and technological learning solutions.

The use of tools such as artificial intelligence and virtual reality are on the rise. New players are looking into interactive video or accessible virtual reality based 3D learning environments. All this makes learning more personal to the learner. As these products become more mainstream, they reduce in cost and increase in popularity.

Further reading

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Books and reports

PAINE, N. (2014) *The learning challenge: dealing with technology, innovation and changes in learning and development*. London: Kogan Page.

PAGE-TICKELL, R. (2018) *Learning and development: a practical introduction*. 2nd ed. HR Fundamentals. London: CIPD and Kogan Page.

TOWARDS MATURITY (2014) *Using MOOCs to transform traditional training*. London: Towards Maturity.

TOWARDS MATURITY (2015) *Embracing change: improving performance of business, individuals and the L&D team*. London: Towards Maturity.

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Journal articles

FARAGHER, J. (2018) [Why fresh approaches to L&D are presenting new problems](https://www.peoplemanagement.co.uk/long-reads/articles/new-approaches-learning-development-presenting-fresh-problems) (<https://www.peoplemanagement.co.uk/long-reads/articles/new-approaches-learning-development-presenting-fresh-problems>). *People Management* (online). 25 October.

GILBERT, S. (2013) Mobile learning. *T+D*. Vol.67 No.7 July 2013 pp.31-34.

JESKE, D. and STAMOV-ROSSNAGEL, C. (2012) Success by inclusion : 'age fair' elearning practices. *Organizational Dynamics*. Vol 41, No 4, October-December. pp302-307.

MCKAY, F. (2017) [Digital in L&D – friend or foe?](https://www.peoplemanagement.co.uk/voices/comment/digital-learning-friend-foe) (<https://www.peoplemanagement.co.uk/voices/comment/digital-learning-friend-foe>). *People Management* (online). 31 March.

YACOVELLI, S. (2012) How to effectively evaluate elearning. *T+D*. Vol 66, No 7, July. pp52-57.

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Members and *People Management* subscribers can see articles on the [People Management](http://www.cipd.co.uk/pm/) (<http://www.cipd.co.uk/pm/>) website.

[Download factsheet \(/Export/ToPdf?path=%252fknowledge%252ffundamentals%252fpeople%252fdevelopment%252fdigital-learning-factsheet\)](#)

This factsheet was last updated by David Hayden.



David Hayden: L&D Consultant/Trainer

David is part of the CIPD's L&D Content Team. He leads on the design and delivery of a number of L&D-focused products as well as keeping his practice up to date by facilitating events for a range of clients. David began his L&D career after taking responsibility for three Youth Trainees back in 1988 as an Operations Manager, and has since gone on to work in, and headed up, a number of corporate L&D teams and HR functions in distribution, retail, financial and public sector organisations. He completed his Masters degree specialising in CPD and was Chair of our South Yorkshire Branch for two years from 2012 before joining as an employee in 2014. David also has a background in 'lean' and has worked as a Lean Engineer in a number of manufacturing and food organisations. Passionate about learning and exploiting all aspects of CPD, David's style is participative and inclusive.

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Reports

L&D: evolving roles, enhancing skills

<http://www.cipd.co.uk/knowledge/strategy/development/roles-skills-report>

Research conducted with Towards Maturity exploring how L&D roles and responsibilities are changing, and how we are building L&D skills and capabilities

[Read more \(http://www.cipd.co.uk/knowledge/strategy/development/roles-skills-report\)](http://www.cipd.co.uk/knowledge/strategy/development/roles-skills-report)



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Factsheets

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Outlines the main types of learning method, and what to consider when choosing between them

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<http://www.cipd.co.uk/knowledge/work/technology/social-media-report>

Reports

Putting social media to work

<http://www.cipd.co.uk/knowledge/work/technology/social-media-report>

Explores the potential benefits of using social media within organisations

[Read more \(http://www.cipd.co.uk/knowledge/work/technology/social-media-report\)](http://www.cipd.co.uk/knowledge/work/technology/social-media-report)



<http://www.cipd.co.uk/knowledge/work/technology/future-technology-learning>

Reports

The future of technology and learning

<http://www.cipd.co.uk/knowledge/work/technology/future-technology-learning>

Analyses the drivers of technology adoption using practitioner data, and evaluates the potential success of emerging technologies

[Read the report \(http://www.cipd.co.uk/knowledge/work/technology/future-technology-learning\)](http://www.cipd.co.uk/knowledge/work/technology/future-technology-learning)



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