

# What is an LMS?

A comprehensive guide by Virtual College



## Introduction

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As the name suggests, Learning Management Systems (LMSs) are specialist software applications designed to help make the delivery and management of education and training programmes much easier.

An LMS should have a measurable impact on an organisation's performance – saving time, stress and costs by having all learning managed through one centralised dashboard. They are used by all types of organisation; public and private, large and small.

They can be used to simply distribute and record completion of online training or for delivering a blended college course over the Internet, utilising video conferencing to encourage online collaboration.

There are well over 600 different LMSs available, though they are divided by three main characteristics.

This guide aims to cover all of the functions you would expect an LMS to contain but also outlines some emerging themes in the market.

It draws upon the experience of developing Virtual College's third generation LMS, Enable, and knowledge gained through 20 years of designing and delivering Virtual College's online training.

Where relevant, examples from Enable are provided to illustrate various aspects of LMS functionality.

## Corporate vs education focus



Academic learning is often general and wide ranging, leading towards a recognised award such as a degree. Educational LMSs generally focus more on supporting the academic calendar, traditional departmental structures and often have well developed collaborative learning options.

Corporate learning focuses more on short courses with practical applications within a particular organisation. Corporate LMSs tend to have very flexible organisational structures and include features such as talent, capabilities and compliance management.

## Proprietary vs open source



Some LMSs are known as 'open source', which means that the platform isn't owned by any one organisation. Platform development and technical support is dependent on the platform's community. This can mean there are low or no upfront costs. However, you will be responsible for setting up, hosting and supporting your LMS. This can lead to significant long term costs.

Proprietary LMSs generally work 'out of the box' and offer you and your learners support, defined development road maps and are hosted for you, which eliminates the need for large amounts of in-house technical support.

You can read more about the differences between propriety and open sources LMSs here:

[www.virtual-college.co.uk/news/Enable-LMS-versus-Open-Source](http://www.virtual-college.co.uk/news/Enable-LMS-versus-Open-Source)

## Cloud vs hosted



Traditional LMSs were generally hosted on servers owned by the customer and located behind their firewall. This can add significantly to the recurring costs of supporting your LMS and can present problems if you need to scale up your solution.

Increasingly more common are cloud based LMSs, hosted by the vendor. Customers access their LMS via the web, which avoids the costs and headaches associated with setting up and supporting the infrastructure required to run the LMS.

Learning management systems also have a range of common features and functions that support the delivery and management of learning and development. Below is an outline of some of the most important features, as well as a look at some of those that are gaining in prominence.



# Supporting e-learning and online training

It was the advent of e-learning courses combined with the LMS that created such a potent solution – utilising the technology of the Internet to help transform training.

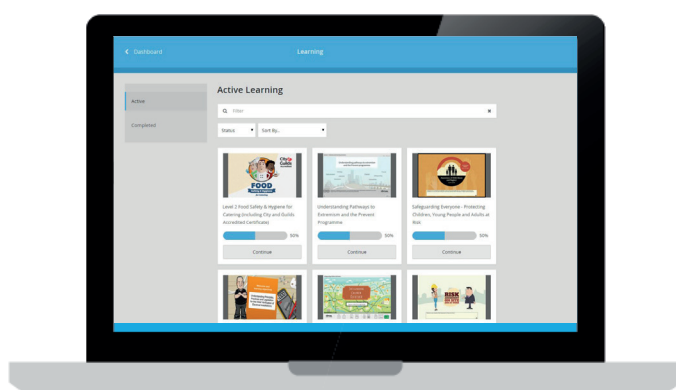
Traditionally, an LMS would be installed within the organisation's IT infrastructure. Most LMSs are now web-based to facilitate access to learning content and administration.

The benefits of e-learning are many. Organisations can roll out consistent training programmes across multiple sites, giving learners the flexibility to train and learn without having to travel to hotels or training centres. In addition to saving time and money, several studies have demonstrated that it can deliver enhanced learning outcomes.

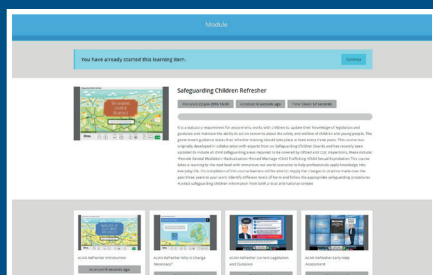
It was the ability of the LMS to enrol learners into e-learning courses, track learners' performance, record test results and provide rich analytical data that gave e-learning its real organisational impact.

It is the alignment of e-learning with the LMS that gives the system its pivotal role in the modern organisation's business architecture. This has seen a reduction in costs whilst giving improvements in the planning and co-ordination of training.

But the development of the LMS has not stood still. What it can do to support an organisation has evolved and developed since its inception and its ability to deliver e-learning materials is now just one attribute of many.



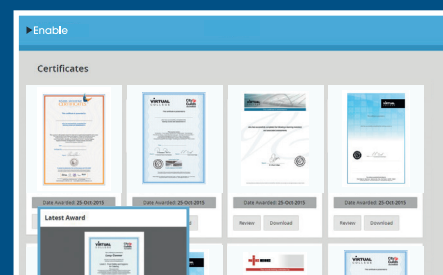
Above: The course catalogue provided in this example of Enable allows learners to browse training via the web.



Above: In this example, course overviews give learners further details.



Above: Online training is an effective way to reach large numbers of learners.



Above: Certificates give learners a record of achievement.



## Building courses: uploading, creating, curating and bookending

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The ability of the LMS to deliver e-learning content (usually in SCORM or AICC format) quickly grew to allow for the creation of e-learning courses in the LMS. Users could assemble SCORM content into courses and add documents and other materials to build courses using content management systems (CMSs) within the LMS.

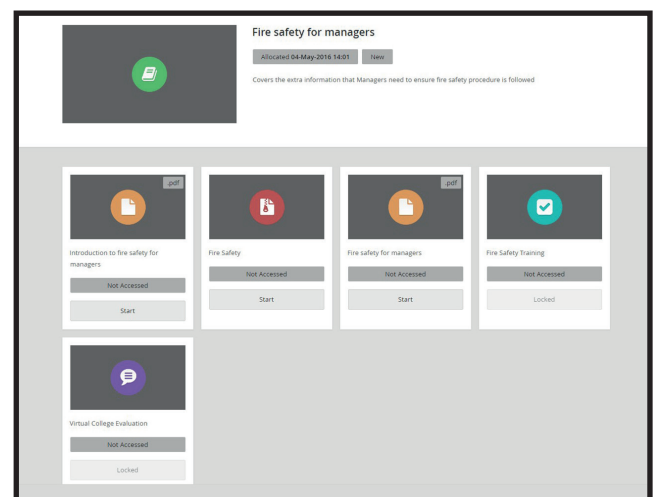
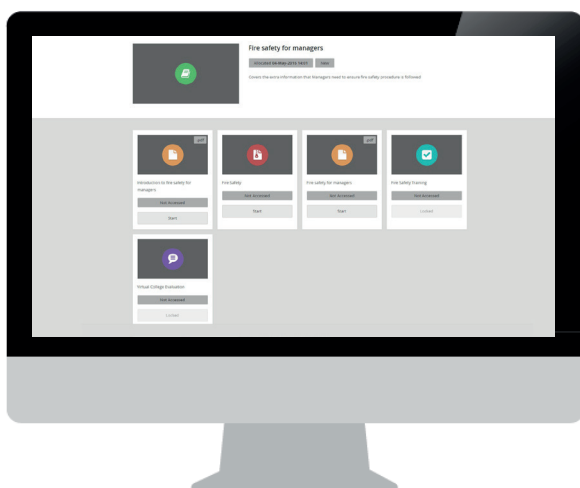
The LMS evolved to allow users to curate other existing learning materials from the Internet, web pages, videos and the mass of other learning resources available, often called Open Education Resources (OER).

The rise of video in learning has been a strong trend and LMSs have quickly evolved to support video from sites such as YouTube and Vimeo. LMS managers and administrators will quickly find themselves curating learning resources from disparate channels.

A new term called 'bookending' is emerging, with generic off the shelf e-learning having bespoke materials put at either end to contextualise its relevance to an organisation.

Again, the ease with which an LMS can handle e-learning materials, and the almost endless range of other resources available to add to courses or make available as resources, is a huge point of differentiation in LMSs.

Often learners are allowed to add and share their own content, sometimes in an e-portfolio, as evidence of learning, but also to share with colleagues as part of the course in a social learning environment.



*Images above: Enable 'course builder' provides a simple way.*

# Facilitating the management of learning

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Managing learning is a particular challenge in many organisations, as the nature of the modern company changes. The pressure is on organisations to deliver more courses as more mobile and home working patterns emerge, compounded with increasing regulatory requirements.

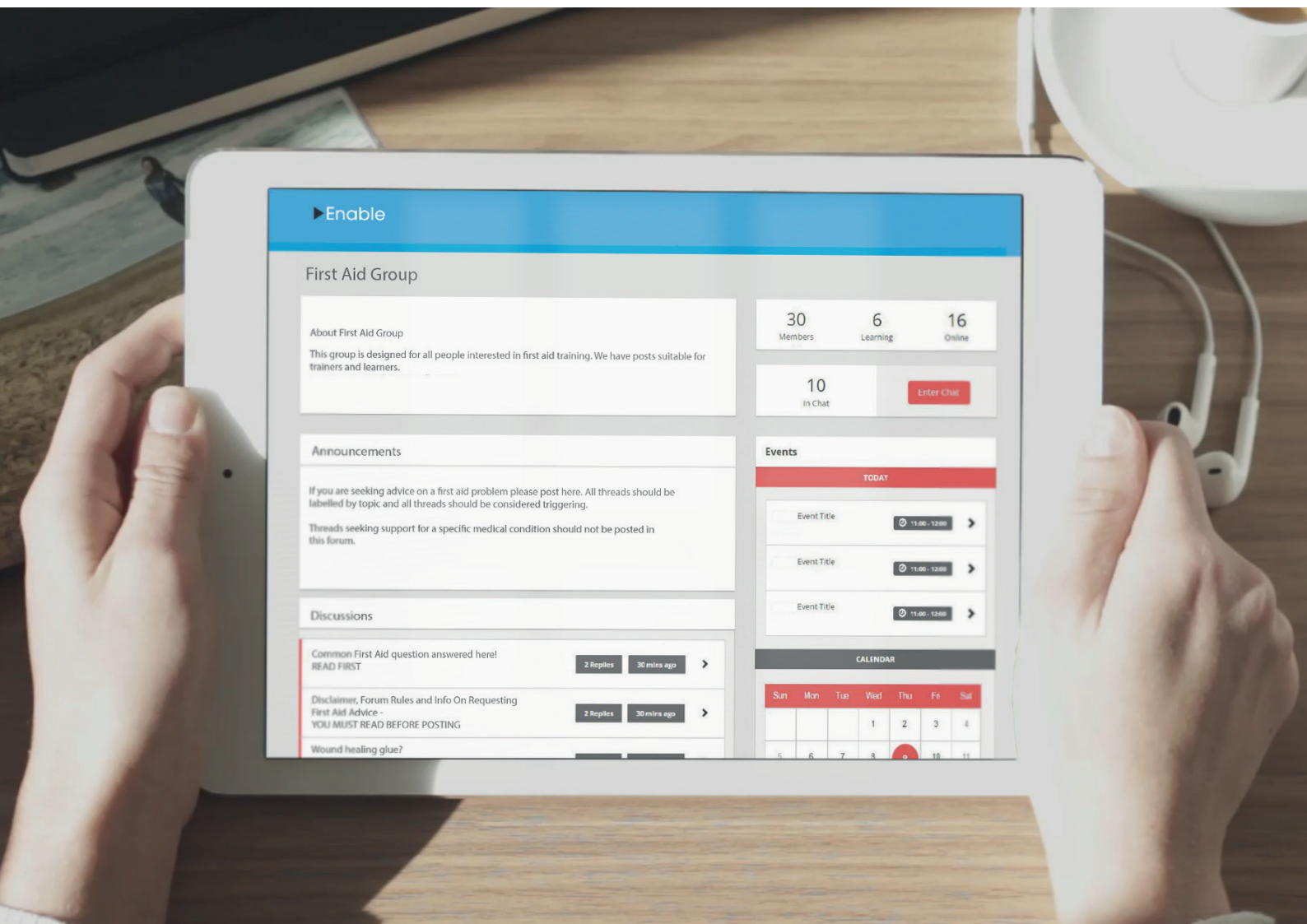
An LMS offers an efficient way to enrol employees into courses that are tailored to the requirements of the individual and the organisation. These can be actioned by line or departmental managers, or by locations, by groups or by role, or indeed from appraisal and development plans.

Sophisticated scheduling ensures that learners can be reminded of their progression automatically and reports are generated for the organisation to manage progress.

The ability of a third generation LMS to create multiple groups of learners and effectively map an organisation structure is particularly useful and has been a major development of LMSs in recent years.

The rigidity of the LMS and its inability to offer hierarchies of users and groups that reflect an organisation's reality has largely been overcome. Once LMSs were limited in their ability to be configured to reflect an organisation's operational structure. This constraint has largely been overcome with modern database developments. Most mid-range LMSs (and above) can now be set up to meet the specifics of any organisation's structure.

*Image below: Enable's 'Groups' function provides an easy way to manage learners.*



# Building robust tests and assessments

The real value that an LMS can offer is in the testing and assessing of a learner's skills and abilities. The learning has been undertaken, but has it been grasped? Will that individual now be better equipped to carry out their job?

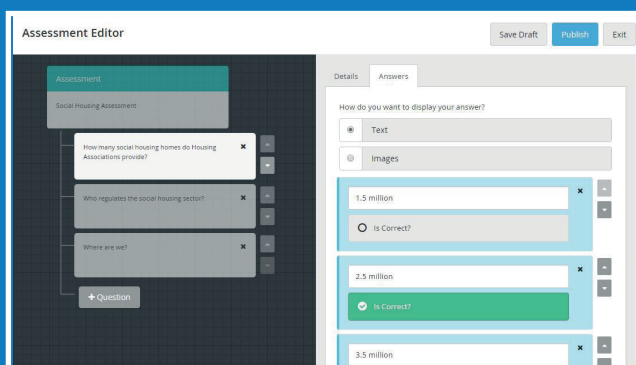
In the LMS (or as part of the e-learning materials) a whole range of assessments can be built to test for understanding. Simple tests and quizzes can be produced, as can more sophisticated tests and assessments, with rules for marking learners' work. Tools providing audio or video feedback to learners are now incorporated in many LMS platforms.



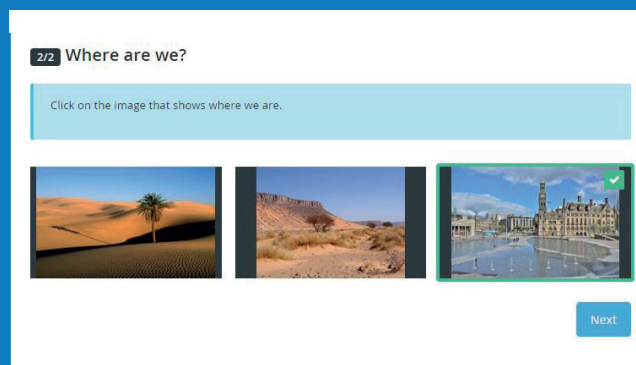
## Supporting competence and assessment

Competencies can be developed and learning pathways assigned for learners to undertake structured career development, all managed through the LMS. Individuals can monitor progress on their own reporting dashboards and organisations can quickly see who is competent for specific tasks and roles and plan accordingly.

The tracking of a learner through their development can also include the recording of face to face learning and most LMSs offer this feature.



Above: An example of how an assessment can be created using Enable.



Above: An example of a photo-based assessment question.

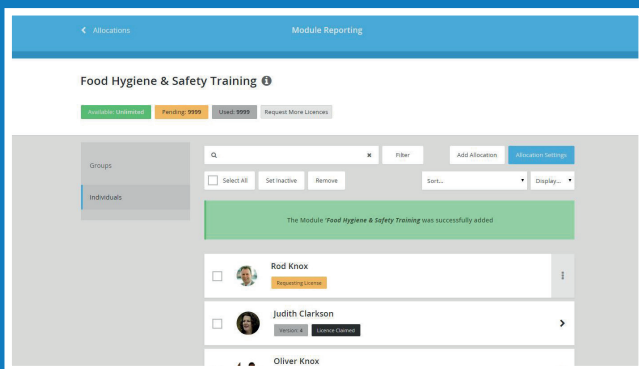
# Providing management reporting



Reporting has always been one of the key capabilities of the LMS and the reporting that employees of an organisation were compliant in health and safety or legal requirements, for example, was a major driver in the growth of the LMS.

The management capabilities of an LMS are considerable and detailed reporting of learner activities has led to a range of additional function sets that LMSs offer. Reports can be customised to understand more details of a learner's activities and abilities. Gaps in learning can be identified and competences can be addressed within the LMS.

Learning pathways can be created for individuals and groups of learners, and, with new protocols and integrations of other performance data from CRM or ERP platforms, the application of analytics to learning and performance starts to be really useful.



Above: Enable's 'reports' can be used to gain a greater understanding of learner progress, gaps and competencies.



Above: This dashboard illustrates Enable's progress reporting functions.

## Learner progress tracking

Tracking is an area where an LMS can provide useful information (as reports), but it is about monitoring progress towards completion.

The Learning Management System commenced as a database to track and record learning in organisations. This role continues and LMSs have grown in their sophistication to track and record learners' performance. The SCORM standard and now the xAPI standard have brought uniformity to the LMS, and the learners' engagement.

Tracking can analyse time spent on certain sections, attempts made at tests built into the course and much more. With SCORM standards tracking was limited. The xAPI standard will allow for the provision of greater tracking information and more learning options to be recorded in the LMS.





# Monitoring compliance using audits

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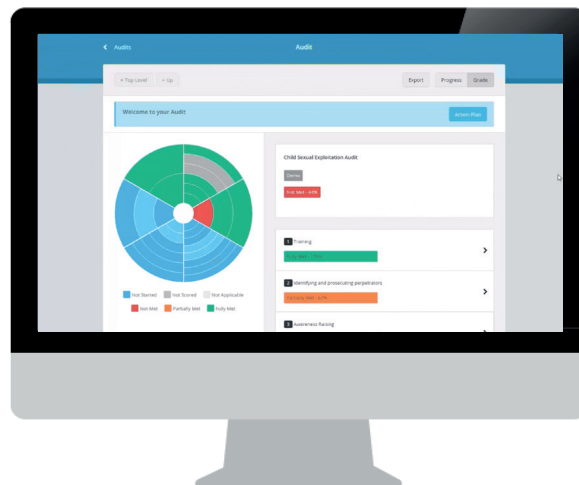
In compliance-centric organisations or roles, an LMS can offer powerful auditing features, pulling reports of learner status and organisational status against statutory training requirements for instance.

The ease or difficulty with which an LMS can be configured and used to pull off such reports is a key differentiator in the market.

A well configured LMS can be a source of support and comfort to many organisations. Sadly, too many LMSs do not yet make auditing easy, with 'clunky' reporting tools.

Enable Audit is an online auditing system developed by Virtual College that is designed to simplify the process of any audit. It allows the user to create multiple audits, capture extensive information and generate detailed reports quickly and easily in one central system.

*Image below: A typical report from Enable Audit.*



# Certification, credentials and badges

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For the learner, recognition and achievement was made quick and easy because an LMS can support the issue of digital certificates of achievement or completion.

The LMS that generates certificates for learners is the norm, and certificates are hugely welcomed by learners as a recognition of achievement.

Increasingly, credentials are the future, which may well be micro certificates. Digital badges will prove to be very portable modes of recognition, quite possibly building towards a qualification or certification.



## Portfolios of evidence

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E-portfolios have been a feature of LMSs, though they are often a standalone environment as well, such as Mahara or Pebble pad.

Many LMSs, including Enable, have their own e-portfolios and these allow learners to collect evidence of their own learning and reflect on their learning.

The ability of the learner to upload evidence against set criteria in an e-portfolio can be a very powerful means of supporting learning.



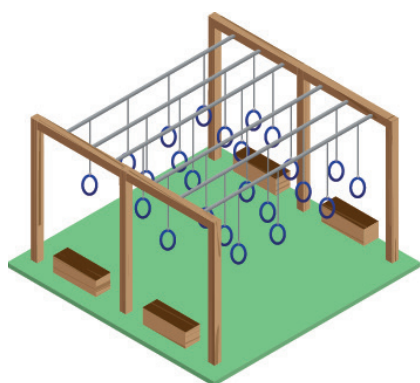
## Increasing the use of gamification

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The use of simple games (think board games and/ or scoreboards) is increasingly popular with LMSs as a means of delivering engagement, reward and competition to learners for completing courses and tasks in the LMS.

Gamification and additional rewards (voucher codes and discount codes) are proving very popular at present with vendors and learners.

*Images below: Taken from Virtual College's Active Leisure Career VOOC, these courses use gamification techniques to keep the learner engaged.*



## Developing integration capabilities

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Another major development of LMSs has been the drive towards integration with other learning environments.

Integrations with webinar technologies and virtual classrooms are increasingly common and many LMSs offer considerable integration options with tools such as Dropbox.

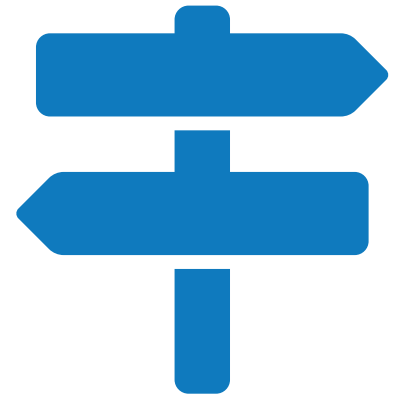


# Adaptive learning

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## Single sign on

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Other necessary integrations took place with office productivity tools such as Outlook or Google calendars.

Single sign on protocols were quickly utilised so that the LMS would form part of the organisation's overall information systems and users could seamlessly move from one application to the LMS without the need to log in and register.

Increasingly, we will see the LMS integrated with CRM (Customer Relationship Management) systems, ERP systems and of course HR and talent managements systems, as we finally see the arrival of the digital business.

In this way, the LMS now simply appears as a learning tab on the CRM portal and learner records are updated seamlessly between platforms. In these integrations, the LMS will become business critical.



# Going forward... even greater relevance

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Too often, e-learning and LMSs have been viewed as ways of saving money. That's true - a well-designed e-learning platform and an LMS can save an organisation a considerable amount of money. But in the digital age, an LMS can add significant value to an organisation and is becoming an essential part of the modern organisation.

So, yes, we can add to our definition: **An LMS is a Software Solution that supports and enables training and development in an organisation and saves money.**

But, what is an LMS really? We have looked at the definition; we have looked over the evolution and indeed covered the feature sets of an LMS. But what can it do?

**A Learning Management System (LMS) is a mission critical application essential to the modern organisation to effectively align its business strategy with its most important resource thereby enabling their people with the requisite knowledge and skills to grow and excel in their role by delivering the organisations goals.**

[www.virtual-college.co.uk/lms](http://www.virtual-college.co.uk/lms)

[info@virtual-college.co.uk](mailto:info@virtual-college.co.uk) • 01943 605976

#### Virtual College

Marsel House, Stephenson's Way, Ilkley, West Yorkshire, LS29 8DD, England

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For over twenty years we have been providing the perfect blend of interactive, engaging and powerful online learning to our **2 million learners** and have recently been voted e-learning development company of the year.

