

Samuel A. Malone

Learning with Technology

Practical Learning for Adults
Part 2



SAMUEL A. MALONE

LEARNING WITH TECHNOLOGY

PRACTICAL LEARNING FOR ADULTS PART 2

Learning with Technology – Practical Learning for Adults Part 2

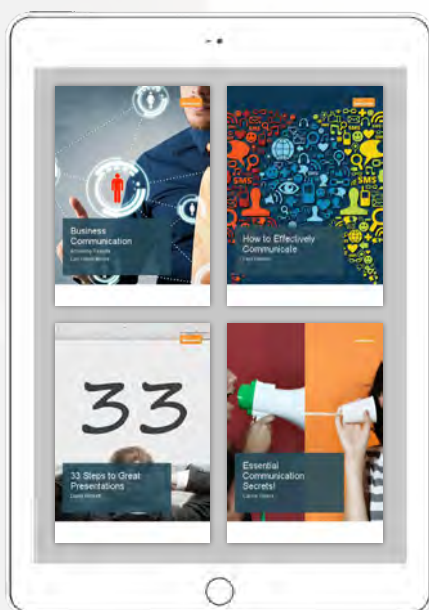
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INTRODUCTION

This is the second book of a series of two books on Practical Learning. The first book is titled: Experiential Learning – Practical Learning for Adults Part 1.

This book is titled: Learning with Technology – Practical Learning for Adults Part 2.

E-learning is the use of electronic media and information communications technology in education. One of the benefits of e-learning is that learning can be focused on the needs and educational goals of the learner and presented in an interesting, structured, flexible and just-in-time basis.

M-learning is handheld technologies, together with wireless and mobile phone networks, to facilitate, support, enhance and extend the reach of teaching and learning. It provides an efficient, cost effective and accessible way to get up-to-date information to learners just where and when they need it.

Distance learning can be defined as the acquisition of knowledge and skills through mediated information and instruction, encompassing all technologies and other forms of learning at a distance.

MOOCs are massive open online courses and are gaining in popularity. They are another type of online learning. By realising the benefits of economies of scale and passing them on to students it is hoped that MOOCs will democratise education making it more affordable to the masses. This is already happening in developing countries like India. All the experts agree that MOOCs has a bright future but is currently in a state of transition.

Social media is a countless range of internet based tools and platforms that facilitate and enhance the sharing of information and learning between users. This new form of media can transfer text, photos, audio, video and information between users. It takes place using personal computers including laptops and notebooks, iPads and smartphones.

Platforms like Facebook, Twitter, LinkedIn, YouTube and blogs, among numerous others, have created online learning communities where people can share information and learn from each other. Some companies have developed their own version of social media called social enterprise networks. Some of the benefits of social media include improved collaboration, increased productivity and the sharing of expertise and knowledge.

For a growing number of companies, the way to help employees keep up-to-date is social media – collaborative, just-in-time, relevant and presented in a workplace context. Some companies have developed their own corporate versions of social media. Social enterprise networks (SENs) are private internal software platforms designed to help employees learn more effectively.

Intelligent tracking systems will identify learning needs and remind learners of goals that have not yet been met and suggest learning experiences that will cover the required expertise or subject area. SENs foster collaboration, communication, knowledge and expertise sharing and the learning of information. They help employees find experts and peers who can answer their questions about specific problems when and where they need them.

Samuel A. Malone

February 2018

1 LEARNING WITH TECHNOLOGY: E-LEARNING

- What is e-learning?
- What is blended learning?
- What is a learning management system (LMS)?
- How does synchronous learning differ from asynchronous learning?
- What is m-learning?
- **What does MOOCs stand for?**

1.1 E-LEARNING



Fig. 1.1 E-Learning

When Tim Berners-Lee invented the World Wide Web (www) in 1991 he probably didn't realise that he had started the greatest revolution in education and learning since the invention of the printing press by Johannes Gutenberg around 1440. The evolution of e-learning (electronic learning) in recent years is a direct consequence of his invention. E-learning is the use of electronic media and information and communications technologies (ICT) in education. E-learning is organised through the Internet or an intranet. The intranet is the private network of an enterprise. The main purpose of an intranet is to share company information and computing resources with employees.

Most people make use of at least two information and communications technology devices during the course of the average day. These include PCs, laptops, smartphone and tablets which are used interchangeably for work, entertainment, leisure and play. The combination of devices and connectivity has given people the ability to access the Internet anywhere, anytime from their workplace, home, hotels and restaurants, cars and planes and even when they are walking along the street.

Corporate training institutes are developing e-learning programmes to meet company strategic objectives or solve learning, compliance, productivity and performance problems that organisations may have. E-learning is the fastest growing training medium for UK companies according to the Chartered Institute of Personnel and Development (CIPD). It's increasingly being used for company-wide initiatives such as induction, compliance and the improvement of team performance. E-learning can be used by individual learners through self-study tutorials at the end-users desk using a personal computer or laptop. It can also be used to facilitate working in groups and for teleconferences.

Some colleges offer certificate, diploma, degree and post-graduate programmes via this medium. E-learning through distance learning programmes has enabled universities to expand on a global basis attracting students worldwide. Geography and national boundaries is no longer a barrier to distance learning. Those universities which fail to adopt the new technology will be left behind in the competition for new students and new ways of meeting the needs of adult learners. E-learning is now an indispensable learning and teaching tool.

Web-based training is the term used to describe training packages offered on the Internet. Virtual classrooms may be used to link course participants in different locations at home and abroad with their tutor. Learning may be presented using multimedia. Bulletin boards and chat rooms may be used enabling people to talk and interact with each other. This can be augmented by video or audio conferencing. E-conferences can be very enjoyable because it allows learners to be connected with a range of other learners that they would not normally meet.

Blended learning

E-learning may not be suitable for everyone but it can be integrated with other forms of learning. This is called *blended learning*. Blended learning came about because of the very high attrition rate for e-learning. Blended learning is an approach that blends, mixes, or combines self-directed learning and online learning with classroom instruction, coaching or mentoring. The online component becomes a natural extension of traditional classroom or training room learning. A complementary mix of different learning activities might be available within the same learning programme.

The number of blends or combinations is limited only by human creativity. Blended learning offers the best of live experience with the flexibility and convenience of online learning. The idea is to provide the best learning outcome for learners. It supports a range of learning styles and life styles. Blended learning is not something new. Back in the 1950s, before the

advent of computers in learning, instructors were blending simulations, games, role plays and case studies with lectures to make learning more student-centred, exciting and interesting.

Blended learning provides an environment that promotes both independence and interdependence. For example, GetSmarter is a South African training company offering short online courses in collaboration with the University of Cape Town. In addition, it offers an advanced diploma in business project management and a postgraduate diploma in marketing management. GetSmarter's blended learning model combines the use of an interactive online platform with a lot of support. Learners have direct access to their fellow learners, a dedicated course coach (an academic) and a course instructor (an industry expert).

Many of the soft skills, such as interpersonal relationship and public speaking skills, need face-to-face experience which can be supplemented by online instruction. For example, instant messaging and chat room technologies can be used to build negotiation, communication, and foreign language skills. Other skills commonly called hard skills, such as project management, accounting and finance, can be acquired through online learning supplemented by workbooks and activities.

Some organisations have explored a *flipped classroom training model* in conjunction with blended learning. In this model skill and knowledge information is given online, away from the classroom with methods such as eLearning, while reserving direct classroom hours for difficult topics needing face-to-face instruction. The learner arrives in the classroom familiar with the material so that the session can focus on the intricacies of practical application.

It's important that the face-to-face component of the blend is coordinated smoothly and harmonised with the online content, and that the right mix between the two is achieved. Learners can feel isolated and alone if they spend too much time on the online component. In any event, it's important that the blended learning is interesting and challenging so that the learner is totally engaged at all times. In a college environment blended learning can produce improved results and reduced dropout rates. In a corporate setting blended learning has been successfully used to increase the functional effectiveness of managers.

E-learning and Learning Management Systems

When dealing with e-learning you will come across terms like synchronous, asynchronous and learning management systems (LMS). *Synchronous learning* occurs when several technologies connect online learners with the trainer in real time (no noticeable delay between the action and the response) in a virtual classroom. Other examples of e-learning include real-time chat-rooms and video or audio conferencing.

On the other hand, *asynchronous learning* is learning that does not rely on the facilitator and learner working simultaneously. Learning materials are put on the Internet by the facilitator and accessed offline at a different time, by the learner. The learner may access the material at a time and place that suits them. The learner uses the Internet merely as a support tool rather than solely for interactive online classes.

A LMS is a software application for the administration and accessing of e-learning. It includes the documentation, scheduling, tracking, registration, reporting, assessment and delivery of e-learning education courses or training programmes. This powerful tool allows learning coordinators to store all learning content in one place where learners can access it when they need to do so via their smartphones. The right LMS is easy to use and can help make mobile learning simple and convenient for both learners and learning facilitators.

Schools, colleges, and professional institutes with big student populations have adopted LMS systems. Moodle is a popular example of one such a system. This helps instructors to build dedicated websites for their courses to keep in touch with students beyond the classroom. Students can download course materials and recommended readings. They can upload their assignments to have them assessed and marked online. Examiners can provide them with timely feedback on their strengths and weaknesses so that they can improve in the future. They can take part in chat room sessions, post queries that they have on a discussion forum and even attempt quizzes from outside the campus.

A company needs a LMS to operate their e-learning programmes efficiently and effectively. For example, GetSmarter learning management system notes when learners log in, when they ask questions, when they watch video lectures as well as how much of the lecture they watch, how long it takes for the faculty to answer learner questions and so on. They use data to determine if a learner hasn't prepared sufficiently for an assignment. This means that they can intervene with an email or a telephone call to highlight the potential risk, and help the learner to take corrective action before it's too late.

'When it comes to e-learning, content means everything. If e-learning content is not masterfully designed, all the rest will just go down the drain.'

– Christopher Pappas

1.2 BENEFITS OF E-LEARNING

- Learning can be more focused on the specific needs and educational goals of the learner and presented on a flexible just-in-time and just enough basis. *Just-in-time learning* tends to be delivered in nugget form, focused on a particular task or procedure such as how to close a sale or how to tighten a bolt. In the retail sector cash registers can be used to get knowledge to workers as and when they need it. Point-of-sale-and service devices can be used to provide just-in-time learning to deliver exemplary service. For example, a hotel receptionist may be able to access cultural information to enhance and enrich the welcome experience for each foreign guest. Courses can be tailored around the concept of how adults learn so that they are more relevant, effective and engaging. Unlike revising a textbook, changes to online course material can be easily made or new material added to update the course. This means that learners have 24/7 access to current up-to-date material.
- Learning can be enhanced through the use of multimedia such as video, virtual reality, simulation and gaming. At least one MBA course has been created to simulate a real corporate environment. This means that learners gain real life work practice accessing typical documents, using actual systems and procedures, attending simulated meetings and creating real world assignments. They essentially gain on-the-job experience as they learn online without the risk of making costly mistakes.
- Learning can be provided off-the-job in the learner's own home or elsewhere. There are dramatic improvements in the time employees are away from their work without any loss of learning impact. Learners enjoy the advantages of having permanent online access to materials.
- Learners can interact with other learners and their tutor in chat rooms, bulletin boards, webinars (interactive live seminars delivered over the Internet) email and through Skype. Skype can be used as a type of videoconferencing – more engaging than a webinar because of the facility to read body language. Learners can contact their facilitator both in synchronous and asynchronous modes if they have queries, and receive answers within expected times. Skype is an excellent tool for working through assignment questions. Evaluation reports and exam results can be sent to learners quickly instead of depending on the vagaries of the postal service.
- Learning is self-paced and generally at times and places to suit the learner. Learners can learn wherever and whenever it is convenient for them to do so. Unlike classroom experiences the learner controls the learning rather than the facilitator. E-learning encourages learners to take responsibility for their own learning and facilitates the pursuit of lifelong learning.
- As an alternative to face-to-face courses, e-learning is claimed to be more cost effective. For example travel costs and time spent travelling to and from the venue is saved. In a busy world where time is so scarce working professionals can use this travel time productively as study and revision hours.

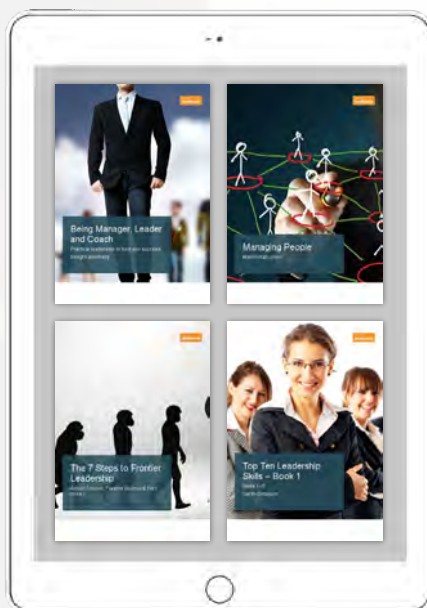
- Employees who undertake e-learning degrees as self-directed learners can do so while continuing to work full-time, raise families, and get recognised qualifications they need for promotion or salary increases. Learners can meet their continuing professional development (CPD) requirements without having to book courses out of the office.
- Retired adults who want to learn about their hobbies such as art, literature, photography or wine appreciation can do so by undertaking the appropriate e-learning course online from the comfort of their own homes. Online education has made it possible for most of us to learn online, to become masters of any subject area that we desire, to develop business skills and inform ourselves on any hobby that interests us.
- Learners can form learning communities to exchange ideas, learning resources and compare experiences with other learners. In IBM's 2012 'Leading Through Connections' study, 75 per cent of CEOs identified collaboration as a critical employee trait. Using social media effectively can help companies achieve better cooperation across the workforce. In addition, it breaks down barriers among employees and supports broad knowledge sharing among the workforce.
- Research shows that students in e-learning university courses, using techniques such as virtual lectures and bulletin boards, achieved better grades than students who studied in traditional courses.
- Adult learners can communicate cost effectively with other learners throughout the world. They can gain from others' knowledge and experience, put their own blogs on the web, participate in chatrooms, share ideas and solutions and learn from many diverse cultures. Learning facilitators can do this without the expense and logistical problems of assembling people from different countries or locations in one room.
- Through the use of e-learning students who have previously been unable to access higher education now have the opportunity to study at any location that best suits their particular needs. In addition, e-learning gives homeworkers and people with disabilities the opportunity to further their education from home provided they have a personal computer with Internet access with good broadband. So e-learning provides equality of educational opportunity irrespective of social background or disability.
- It may suit some introverted learners who find it uncomfortable to sit in a class and speak in front of a large group of people. They also like the sense of independence that online learning provides.
- We access all types of information through the Internet from library resources all over the world, including magazines, books, newspapers and journals instantaneously. Google and Wikipedia are an inexhaustible source of information and knowledge and they are becoming more comprehensive, acceptable and reliable with the passage of time. Learners using search engines can source information quicker and more

tailored to their specific needs. Students now routinely do their research on the Internet using the resources provided free by Google.

- Increased skills and knowledge for the workforce. Superior learning provides a competitive advantage leading to shorter product development cycles, improved productivity, increased flexibility to provide training opportunities on a just-in-time basis, and an improved ability to manage modern organisations with flatter structures.
- The computerisation of the learning process means that there is an enormous amount of data available to help companies and educational institutions to make informed decisions about the provision of training and learning facilities. This has been further facilitated by the advent of big data, social media and cloud computing.

'We need to bring learning to people instead of people to learning.'

– Elliot Masie



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1.3 USES FOR E-LEARNING

Where companies haven't the expertise to meet their e-learning needs within the organisation they may decide to outsource the work to expert external content providers and developers. E-learning has been used in corporate settings for:

- Induction training. Induction training for new employees and when employees are transferred to new jobs or new departments. Employee orientation websites, training modules, and skill development modules can all be used to provide online or just-in-time training for new employees. Well-designed e-learning courses can be used to mitigate the costly negative effects of employee turnover. This is achieved by helping new employees become effective and productive sooner. In addition, they can be used to provide training and development opportunities that help retain the best and most talented employees.
- Supporting new technology. Such as up-skilling employees in new software systems and operating new technology. Mentoring and coaching programmes could be supplemented with E-learning for employees, mentors and coaches.
- Regulatory compliance. Bringing employees up to speed on the latest company legislation, finance legislation, or health and safety issues. Also informing them of corporate culture, new policies, rules and procedures introduced into the company. These could cover issues like equality, cybercrime, cyberbullying and sexual harassment.
- Personal development. Help employees develop personal skills, such as managing people, time management, interpersonal relationship skills, communication, motivation and negotiation skills. Role specific development such as training employees in specific skills or new developments related to their work areas.
- CPD. Continuing professional development is now a requirement of many professional bodies including the accounting, engineering and legal professions. Many courses can now be accessed through e-learning on your desk top computer.

1.4 DRIVERS AND OBSTACLES TO E-LEARNING

Cost savings and convenience are the strongest drivers for the corporate uptake of e-learning. Forrester Research identified the perceived benefits of e-learning in a sample of the Fortune Top 2,500 companies as: cost savings, availability anywhere any time, provision of just-in-time learning, increased instructor availability, ease of use, fast distribution, self-paced learning, and ease of changes in content.

The perceived obstacles were lack of interactivity, cultural resistance, bandwidth limitations, cost, difficulty in measuring return on investment, browser problems, firewalls, the lack of

internal information technology support, and problems with standards. Another barrier may be lack of ICT knowledge and skills amongst staff.

Some learners may lack the confidence to use technology and interact with facilitators. In addition, some may need intensive training to bring them up to speed in the use of ICT. Learners from low income backgrounds may not be able to afford personal computers with Internet connections. There may be a lack of support from senior and line managers. The most common downside is probably isolation. Some e-learning learners find it difficult to be self-disciplined and motivated enough to do the work without the moral support and face-to-face interaction with other learners, and the support of facilitators found in traditional live courses.

However, these days most learners, trainers and lecturers are proficient in the use of computer technology for accessing the internet for personal and professional reasons. In addition, most find it easy to adapt to advances in modern technology, especially for learning and communication purposes.

In reality the learner needs a high level of independence and motivation to be a successful e-learner. Part of the facilitator's energies need to go into building and maintaining such independence and motivation. Socialising and humanising the process may be a key factor in the e-learning experience. This compensates for the absence of regular face-to-face contact between the facilitator and learner. Forrester recommends more evaluation, more information tracking and more use of internet tailoring, plus increased richness of content.

On the downside, e-learning is but one of a succession of supposed panaceas for learning that include programmed instruction, audio, video, television, computer based instruction and the Internet. All of these have failed to live up to the huge hype and expectations. They facilitate learning but are not complete solutions in themselves. Blended learning is one answer to the problem. At the end of the day it is not possible to replace facilitator contact satisfactorily with total reliance on e-learning and the social aspects of collaborative learning. In practice the most valuable aspects of learning are the people that you meet, the discussions you have and the contacts that you make. This is why face-to-face training is still very popular with learners although there is no doubt that e-learning is making huge inroads in the academic and business worlds.

In the future you will see more creative use of video through the influence of YouTube and the impact of social media. YouTube has been used to familiarise employees with new products and to introduce managers to their constituents. In any event, just like face-to-face courses, e-learning should be clear, interesting, engaging and relevant. In addition, it

must be designed in such a way as to make it easy for the learner to navigate around the material and quickly access specific topics.

'The key to success is to appreciate how people learn, understand the thought process that goes into instructional design, what works well, and a range of different ways of achieving goals.'

– Tim Buff

1.4.1 BARRIERS TO E-LEARNING

Most of the barriers to e-learning also apply to m-learning.

In surveys of e-learning staff reluctance to undertake this type of training can pose problems but as the years go on this becomes less of a problem – particularly as the newer generations are more computer literate than ever because of their early exposure to smartphones and computers. Nevertheless, many learners still prefer face-to-face learning as it provides opportunities for better communication and interpersonal relationships with peers and tutors.

Supporting ICT infrastructure may be a problem in smaller companies but in most big companies it is less of a problem. The lack of learning and development skills to implement and manage new ways of learning may prove to be a barrier in some companies.

Senior managers, who may not have the computer skills common amongst the younger generation, may be sceptical about e-learning and its possibilities. E-learning needs to have cultural acceptance and the support of management within the organisation. It may cost a lot to develop and managers may have reservations about its effectiveness. On the other hand, learners have to take more responsibility and become more self-disciplined if e-learning is to be successful.

There may be organisational resistance to adopting social media tools such as Facebook, Twitter and YouTube. Managers may be afraid that employees will abuse their access to the system by using it for personal and recreational issues instead of helping them with their formal duties. In addition, they may be concerned that YouTube will use too much bandwidth.

'While the method of learning usually gets much of the attention, the truly exciting aspect is that, with the limitless options and possibilities of e-learning, anybody can do it any time and from any place.'

– Frits Pannekoek

1.5 M-LEARNING



Fig. 1.2. M-Learning

Mobile phones are now a ubiquitous feature of everyday life. They offer mobility and portability in the way we learn and perform tasks. Because of wireless technology they are not restricted to a specific location but can be used anywhere where a network exists. The latest smartphones have computing power equivalent to previous desktop or laptop computers. A typical mobile device will have a telephone, Internet, camera, email, SMS (short messaging service or texting), calendar, calculator, GPS navigation system, notepad, alarm, radio, audio, video and an address book.

Most smartphones also incorporate 'apps' (applications or small programmes with different functions) which considerably add to the functions of the device. They can be used for a wide variety of purposes, dependent on the user's needs, wants and interests. Functions can be mapped to a potential benefit. For example, you could have an app for national train and bus services giving you routes and timetables, or an app using email and short message service (SMS) or text messaging to connect with other learners for discussion of work. They can open up new ways to learn by blending informal and formal learning.

We pay our bills using the mobile phone, access government services, manage our current account through Internet banking, book our holidays, check out local traffic, book a taxi, locate a shopping centre and order a takeaway. We check exchange rates, hotel room availability, weather forecasts, latest news and use it as a phone to have a conversation with

someone, send text messages and take photographs or indeed videos. Therefore, there is no reason why we can't satisfy our curiosity and meet our learning needs with the mobile phone. Having a mobile phone is the equivalent of having a huge library at your fingertips.

Learners can download educational apps to their smartphones and use it from anywhere at any time regardless of location. They now come with build-in malware and phishing protection, and auto-update features to make sure their functions are up to date and secure. They are simple and easy to use. Learners can collaborate with their peers and learning facilitators, and share resources and course content remotely using Wi-Fi connectivity to capture images and text, or even record presentations.

The majority of young people now see mobile phones as an essential fashion accessory and must have item. However, it is not just young people that have become addicted to smart phones; the older generation have taken to them as well. Each year smartphones have become more affordable, smaller, better designed, easier to use and more reliable with an increased number of functions and data storage capacities. The networks supporting them have become all pervasive so that the smartphone has become essential to the conduct of people's everyday lives.

Ashridge defines mobile learning as 'Handheld technologies, together with wireless and mobile phone networks, to facilitate, support, enhance and extend the reach of teaching and learning.' M-learning is a type of e-learning but done on a smaller scale with a portable, hand-held device. In the term m-learning, m stands for mobile. The name m-learning suggests learning on the move.

Many people love the mobile experience offering them the freedom to take courses anywhere – on a train commuting to and from work or on a plane during a business trip. The learner might access it in the back of a taxi on the way to a meeting.

Some academics have defined m-learning as 'e-learning connected to a mobile device.' This commonly means a smartphone, but may also refer to other mobile devices such as tablet computers, Personal Digital Assistants (PDAs), iPads, iPods and iPhones.

According to the 2013 report 'Mobile Learning at Work' private sector companies are more likely to be using m-learning than those in the public sector or not-for-profit sectors. Many major companies have adopted m-learning as a method of meeting their training needs.

M-learning means that you can access learning resources at anytime and anywhere with your own personal portable learning device provided you have a wireless connection. Facilitators

and tutors can provide instant feedback and support. Learners can share tips and experiences with their fellow learners without having to be in the same room.

Accenture, a multinational management consulting company, with headquarters in Dublin, created a podcast allowing subject-matter experts and the company's leaders to share knowledge at minimal cost. Accor Hospitality set up a rewards-and-training program that encouraged individual hotels to connect with their guests online to solve on-going customer relations issues. The result was a 55 per cent growth in positive feedback, along with a significant decrease in the number of negative comments.

E-learning and m-learning: differences and similarities

There are differences and similarities between e-learning and m-learning. Most researchers and educators view m-learning as the immediate descendant and natural extension of e-learning. M-learning programmes are normally shorter in duration and designed for instant use. Some of the programmes on e-learning may have to be adapted for m-learning use. Learning content may have to be shortened into learning nuggets or critical learning points suitable for review and revision.

M-learning is much cheaper than e-learning which requires expensive computing equipment. Mobile phones have less storage capacity than personal computers or laptops but this downside has been addressed somewhat by the use of cloud computing for storage. Mobile devices can access company and other learning materials through cloud technology. M-learning comes in various forms including short course such as language learning, compliance training, job aids, study aids, test preparation updates and reminders about forthcoming meetings, hospital appointments or examination dates.

Employees who took competency exams using a mobile phone achieved a higher mark than their peers studying in an e-learning course. Another example of a course delivered on mobile phones is a two-year Hairdressing Training curriculum. This won Britain's best handheld learning award in 2007. Induction training is a growing area for m-learning. Information such as who to contact, maps and directions, policies, rules and regulations of interest to new employees can be accessed immediately. It can also open access to tutors, coaches, mentors and reference materials.

In colleges of further education classroom learning can be supported through m-learning delivering course notes, summaries, checklists, assignments and tutorials directly to students. Information about timetables, exam and assignment deadlines, venue changes and cancellations, feedback from tutors and college news can be sent to each learner.

The five moments of learning needs

The Five Moments of Learning Needs appropriate to e-learning and m-learning have been identified by Dr. Conrad Gottfredson as:

- When learning for the first time? For example, induction training.
- When wanting to learn more? For example, more in-depth information on a topic.
- When trying to remember? For example, to reinforce key learning points after attending a formal course.
- When things change? For example, an appreciation or introduction to new technology.
- When something goes wrong? For example, offering different alternatives for approaches that didn't work.

The first two are particularly suited to e-learning while the last three are particularly suited to m-learning with a just-in-time approach. These questions may act as a great icebreaker when discussing mobile learning with your facilitators and learners.

'You can't teach people everything they need to know. The best you can do is position them where they can find what they need to know when they need to know it.'

– Seymour Papert

1.5.1 BENEFITS OF M-LEARNING

Generally most of the benefits of e-learning also apply to m-learning included blended learning and the ability to access training from almost any location.

- It provides an efficient, cost effective and accessible way to get up-to-date information to learners just where and when they need it. Learners on the move who need assistance and support can easily access it. Even basic mobile phones can send and receive texts. This means that texts can be used to support learning by providing just-in-time critical learning points using keywords. In addition, mobile learners are more likely to put what they learn into practice quickly.
- When employees don't have easy access to a PC, mobile technologies can give access to support systems. These include job aids, helpdesks, career advice, counselling services, mentoring, or in-house expertise to support informal learning – as well as an easy means of referencing resources from formal learning sources.

- Learners can access the Internet and search engines like Google to find out anything they wish to know at any time and in any place. In addition, Wikipedia is a vast resource of learning and information accessible through the mobile phone.
- Mobile devices can give ready access to company information such as price lists, parts manuals, checklists, reference guides, as well as formal e-learning content. None of these are unique to the mobile device. The key advantages lie in the speed of delivery and in providing access to learning and knowledge at the place where needed.
- M-learning can be used afterwards to review, reflect on and reinforce critical learning points made in courses. Learners can connect with tutors or facilitators, other learners or subject experts to get advice and feedback and enhance their engagement and understanding of a topic.

One of the fastest-growing trends in learning technology is the expertise directory. This allows an employee to quickly find an expert if they have an issue they want a reliable answer to.

- It reaches people who may not otherwise get involved in learning. Most of the younger generation have proficient mobile phone skills which they can use with speed to access learning resources with confidence. The Google generation know how to access information within seconds on the Internet and find answers to virtually any question they may have. This is in contrast to 20 years ago when a search through books and journals in a library would take hours or even days. The smartphone empowers learners by encouraging both independent and collaborative learning.
- Learners can complete training on their own time, at their own convenience and at their own pace. You don't have to take an afternoon off to attend a course, or to find a free computer terminal. It is more cost effective than traditional ways of learning and may save considerable time studying and revising which otherwise you would use up in travelling to and from training venues.
- M-learning can take place during down time like when in a queue, commuting to and from work or while waiting in the doctors visiting room. Mobile devices are much lighter and more portable than the books, content, notes, audios and videos that they replaced.
- Technologies are changing rapidly, and cloud based solutions accessed on mobile devices can help L&D adapt quickly to new demands from the business. The recent wave of smart phones displays easy to read information. High resolution screens, coupled with readers like Kindle and iPad publishing tools has made mobile devices even more user friendly.
- Location-based applications, with platforms such as the iPad, make it possible to develop learning and knowledge based applications on mobile devices that are more useful than those on desk top computers.

M-Learning and podcasts

A podcast is a digital audio program. It's a multi-media computer file that can be downloaded to a computer, an iPod or other compatible device and then played or replayed on demand. Podcasts may be particularly useful for auditory learners, who learn and remember best by listening. Companies are using podcasts to enhance employee training and development as well as reduce the cost of training.

- Podcasts, blogs and online chats with subject matter experts and fellow learners can be accommodated through the mobile phone. A podcast is a series of audio files, typically between five and fifty minutes long, available free and through subscription on a seemingly limitless number of topics. They can cover any topic of relevance to the learner.
- Podcasts can be used as a just-in-time form of learning, for subjects which change frequently, providing small pieces of information needed to complete a particular task. Podcasts containing small chunks of learning addressing a specific on-the-job need at a particular time has long been one of the benefits of m-learning and indeed e-learning. These have been used in sales training and maintenance programmes to provide vital information just where and when it's needed.
- Podcasts do not allow for interactivity and feedback. They are thus more like a lecture or an explanation than a stand-alone learning program. They expand and reinforce what people learn in seminars, workshops, self-study and e-learning programs. They can offer supplementary lectures, interviews or case studies on classroom learning or other training programs. They can provide learners with a convenient way to review, recall and revise material for examinations. They can be used to preview material before class. They can thus free-up valuable training time for activities that require interaction, practice and feedback.

Companies using podcasting for training

IBM uses podcasting internally to deliver information to its employees. In addition, it uses podcasts to update their investors on the latest business news. There is some research which suggests that university students who download podcast lectures achieve higher exam results than those who just attend lectures.

Herbalife, a US manufacturer of nutritional supplements, is creating podcast training programs for its distributors around the world. The company already has given away more than 1 million iPods to its employees. Financial services provider Capital One gives iPods

to its employees to enable them to listen to training programs on the company's intranet and corporate Web site.

A restaurant group in the US called Pal's Sudden Service use audio and video podcasts to train all their employees. They can listen to a 30 or 60 second podcast right at their own work station.

'M-learning is the intersection of mobile computing and e-learning, that includes anytime, anywhere resources; strong search capabilities; rich interaction; powerful support for effective learning; and performance-based assessment.'

– Clark Quinn



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1.5.2 BARRIERS TO M-LEARNING

There are some reservations about mobile technologies particularly in relation to young children.

- Smartphones are often seen as a distraction rather than a help especially in school situations and the vast majority of schools do not allow them in class. They still may leave a lot to be desired regarding their design with complaints about difficulties to use, restricted text entry, small screen size, capacity and limited battery life.
- Though many experts believe that smartphones have a significant potential to help children learn, many parents and teachers are not yet convinced. A 2008 study done by the Joan Ganz Cooney Centre in collaboration with Common Sense Media found that most teachers see smartphones as distractions and feel they have no place in school.
- There are many detrimental social, ethical and psychological affects that have been identified with smartphones. The dangers of being able to access pornographic and inappropriate material is a real concern and the scourge of cyberbullying which has been attributed as the cause of some suicides amongst young people are issues that need to be addressed. The grooming of children by sexual predators and paedophiles through online contact is a real and present danger.
- The 2013 Mobile Learning at Work report cites lack of security access and senior management confidence to encourage mobile learning. It further suggests that there is a lack of sufficient and consistent evidence that mobile devices (i.e. tablet computers) bring definitive benefits over existing technologies. There are also difficulties and cost of integrating mobile technology into existing IT infrastructure. Companies can get around this problem by providing employees with mobile devices that they know are compatible with their IT architecture.
- Increasing use of HTML5 will allow access to the same learning content from any device – mobile, laptop or PC – even if they all run different operating systems. This will eventually solve the barriers posed by incompatible IT architecture.
- There may be lack of skills and knowledge by the L&D team on how to implement m-learning. On the other hand, with the passage of time computer savvy is becoming less of an issue. The modern generation is quite adept at using smart phones and other mobile technologies.

'There is no question that indeed as much as I love my laptop that is not the way the world is going to learn. They are going to learn on tablets and phones. Better be on board or miss the train.'

– Jay Cross

1.6 OPEN AND DISTANCE LEARNING

A type of e-learning is the open and distance learning programmes run by universities and colleges of further education, meeting the needs of working people to gain formal qualification online. Open and distance learning (ODL) is where telecommunications technology is used to provide Internet learning. ODL is now accepted as a viable, practical, cost effective and flexible way of imparting education across the globe. It offers learners the opportunity to do courses offered worldwide at their own time and pace without moving out of their own homes.

The United States Distance Learning Association has defined distance learning as ‘The acquisition of knowledge and skills through mediated information and instruction, encompassing all technologies and other forms of learning at a distance.’ Correspondence courses were the original distance learning programmes. They were essentially text-based and were widely used by the accountancy and other business professions. The mode of delivery was through the post and people studied in their home at their own pace and in their own time.

One of the best known providers of distance learning is the UK’s Open University. Its inspiring mission is to be open as regards entry criteria, people, places, methods and ideas. Students anywhere in the world can register with this university and earn recognised primary and post graduate qualifications right up to doctorate level. In addition, short courses addressing the needs of industry and business are available. The development of ICT has made it possible to offer ODL over the Internet supported by audio-visual content.

Some open and distance learning institutions give credits for prior coursework, prior learning and work and life experience. For example the University without Walls (UWW), a part of the University of Massachusetts in the USA, has 100 per cent online, blended and on-campus courses designed to fit into a busy lifestyle. Thousands of US nationals and others throughout the world have been awarded bachelor’s degrees through the UWW. Degrees are specifically designed around student needs and offer great flexibility to suit their working lives. All students, irrespective of their backgrounds, enter into a process that allows them to evaluate and receive credit for past experience. This is a characteristic which sets UWW apart from all other online programmes.

In the past ODL was plagued by issues such as learners’ feelings of isolation and a lack of interaction between fellow students and instructors. This often led to higher dropout rates than conventional education. However, the emergence of Web 2.0 technologies and social networking applications, specifically designed for an educational environment, has addressed these issues. It’s now possible to collaboratively share knowledge online and form communities of learning.

A good social networking site allows users to create their own profiles, upload photographs and documents, create and join discussion groups, send instant messages, publish blogs and presentations in one display. Texting can be used to inform students about registration, examinations, assignment and other important matters.

ODL is popular with modern students who are skilled in using social media. Studies on distance learning have shown that learners are more successful when they develop a sense of community and belonging. This is supported by mobile technologies which are major innovative ways of supporting ODL courses. Mobile technologies offer new opportunities for distance learning enabling learners to collaborate anywhere.

'MOOCs will become more attractive to employers if their content, length, and features are designed with employees in mind. There is so much content now available through MOOCs that we foresee more employers taking that content and repurposing it to meet their needs.'

– Keith Whitfield. Duke University

1.7 MOOCS



Fig .1.3 MOOCs

MOOCs is an acronym standing for massive open online courses. Dave Cormier, the Canadian educator, who invented the term 'MOOCs' defines it as being a course with a start and end date and that is open with no barriers to entry. The courses are also online, accessed on the Web, and are massive requiring a critical mass of students to contribute in a connected learning environment.

So MOOCs courses are usually available free to anyone who wishes to enrol using self-assessment, multiply choice questions, quizzes and peer-assessment as evaluation tools. Many

of the courses which are usually non-degree are offered by well-known universities, who sometimes partner up with companies to meet specific training requirements.

MOCCs are a fairly recent development in open and distance learning. They were first introduced in 2008 and became a popular mode of learning in 2012. Rising tuition fees and a stagnant global economy have triggered off a revolution in education. This combined with advances in ICT are leading to rapid changes in education and training from lecture based instruction to online education.

MOOCs originally took the form of video lectures based on the traditional academic model with little or no interaction. Progressive educationalists have long known that structured, lecture-based courses need frequent assessments for feedback, so that undergraduates learn how to learn by engaging with their peers and tutors. Now course providers have realised the necessity for greater involvement to make learning more effective, engaging and collaborative including some synchronous learning experiences, such as live chats or links to webinars and podcasts.

Some skill based courses require a hands-on interactive approach which is difficult to replicate online. Institutions like Coursera, Udacity, FutureLearn, HarvardX, MITX, Stanford, EdX and UdeMy are prominent players in the MOOCs revolution and they hope to address some of the problems in the MOOCs model.

Udacity and Coursera, two Silicon Valley start-ups, offer free education through MOOCs. You may have heard of Google's self-driving car which is the brain child of Sebastian Thrun, one of Udacity's co-founders. Udacity's introduction to computer programming course attracted over 200,000 students worldwide, with co-founder Sebastian Thrun winning the Smithsonian American Ingenuity in Education Award for his work with the company. The other co-founders are also professors specialising in robotics. Thrun saw MOOCs as the start of an educational and teaching revolution where the world's best professors would run interactive online classes that would teach hundreds of thousands of students around the world thus democratising education.

Unfortunately, Thrun's dream has not been realised. Research by the University of Pennsylvania's Graduate School of Education found that only about half of the people who register for MOOCs even look at a single lecture. Furthermore, only 4 per cent of the enrollees finish the courses.

Penn research, published in the journal *Nature* in October 2013, found that 80 per cent of MOOCs users around the world have an advanced degree, casting some doubt on the democratising notion. The fact that MOOCs students need to have access to computers

with fast internet connections automatically presents a barrier to the poor, particularly in underdeveloped and developing economies.

Coursera, which targets the vocational sector, has formed partnerships with some of the most prestigious universities and colleges around the world, including many of America's top colleges such as Duke University and Stanford. EdX, a non-profit MOOCs provider founded in May 2012 by Harvard University and the Massachusetts Institute of Technology, is now part of a huge consortium, including the Indian Institute of Technology in Mumbai. India is a huge potential market with an eager student population hungry for further education to improve their job prospects and living standards. According to the EdX website, its platform features includes self-paced learning, online discussion groups, and wiki-based collaborative learning. In addition, it will assess learning as a student progresses through the course, and provide online laboratories and other interactive learning tools.

FutureLearn, with links to the Open University is a consortium of British, Irish and Australian universities which began offering MOOCs from 2013. FutureLearn's MOOCs are designed to work on smartphones, tablets and desktop computers giving learners the same experience regardless of screen size. HarvardX offers a wide variety of subjects free through MOOCs. A small fee is charged if users want certification. MITX have a similar policy of charging for certification.

Udemy's platform provides access to several hundred pre-designed modules. These range from courses in Microsoft Corporation's productivity software to management courses from the Jack Welch Management Institute. Organisations can use Udemy's platform for free to create customised courses. Alternatively, they can pay a subscription that grants access to branded programmes and expanded services. Their courses are different from academe because of their skill-based content.

1.7.1 FUNDING STREAMS FOR MOOCS

The MOOCs may be free, but providers are convinced there will be plenty of revenue opportunities. Ultimately providers must generate novel revenue streams from somewhere to fund their operations. These include charging for certification, tuition fees, specialisation, recognised qualifications, partnerships with colleges and company training departments. A very significant source of funding is advertising. The courses provided by MIT and Stanford are already concentrating on mathematics and computer science. In addition, providers of MOOCs hope to reap huge economies of scale because of the massive and open nature of their courses.

Coursera now charges for certificates for those who complete its courses and want proof of courses done for future employers. It also licenses course materials to universities who want to augment their existing offerings. Semester Online marries the concept of openness with tuition payment. It uses the educational platform 2U, which is different from MOOCs in that students pay tuition, attend virtual classes, and receive credits for work done and exams passed. Many US universities are now offering courses through Semester Online.

On the other hand, the major part of Udacity's business is now working with companies to train existing, new and future employees. It has links to several firms including Google. It's in partnership with AT&T and Georgia Tech, offering a master's degree in computer science. Course materials will be free, but students will pay around \$7,000 for tuition. This still offers great value for money for hard pressed students who are under severe financial strain to support themselves through college. Even after graduation the financial burden on students can last years. EdX sells its MOOCs technology to universities like Stanford who use it to supplement their existing courses. Alison, an Irish provider of free, mostly vocational education founded in 2007, generates revenue by selling advertising on its site. Google also substantially funds its operation through advertising revenue.

1.7.2 MOOCS IN THE CORPORATE SECTOR

Some companies are using MOOCs to provide training opportunities for their technology professionals and other employees. Many companies would not have the highly specialised or technical skills needed to develop courses themselves. For example, Yahoo has linked up with Coursera to give employees access for MOOCs programmes on a variety of topics including Cryptography (the computerised encoding and decoding of information), Java (a type of programming language), Machine Learning, and mobile technology. Employees who finish the programme get a certificate of completion and reimbursement from Yahoo which is attractive from the employees' point of view.

In September 2013, The Wall Street Journal reported that companies such as AT&T and Google have linked up with Udacity to form the Open Education Alliance. This awards students a free certificate based on a set of online courses created with input from different companies. The Wall Street Journal further reports that EdX, in collaboration with the Massachusetts Institute of Technology, has started a similar series of courses. It has plans to ask for input from companies such as Procter & Gamble and UPS. To make the content of the programmes more relevant some employers are linking the material to on-the-job projects solving practical work related problems. Remember that learning only generates a return for employers if people apply it successfully, profitably and productively back on the job.

Marek Bros., a Houston-based construction company with 2,000 employees and offices in Georgia, Oklahoma and Texas, collaborated with Udemy to develop instructional videos about new processes for managing construction-related bidding data. They designed and created 15 videos, of between 2 and 4 minutes long. When it comes to content design, small is the key. The average attention span of people is shrinking so that chunking of learning material into tiny, easily digestible pieces is critical when designing successful and engaging MOOCs. These videos suggested which formulas and protocols to use when employees record specific information on their spreadsheets.

Other companies are forming partnerships with MOOCs providers to make customised programmes to meet the specific training and development needs of their employees. MOOCs are particularly suited for professional development. Professionals such as HRD, trainers, teachers, accountants, lawyers and ICT technologists need to upgrade their skills on an ongoing basis while the facility to have online conversations and collaboration makes the experience more memorable, engaging and exciting.

The Chartered Institute of Personnel and Development (CIPD) have introduced a new MOOCs course for their members and non-members alike called 'Working digitally: social media and HR.' HR and learning professionals need to understand the digital world as part of their professional development. The University of Leeds have launched its MOOCs 'Innovation: The key to business success, in collaboration with Marks & Spencer in September 2014. The free course looks at developments such as innovation in the fresh food supply chain and advances in machine washable fabrics. The course uses case studies from both Leeds University and M&S. It is designed to illustrate how people are the key ingredient to driving successful innovation in existing businesses.

Innovation is recognised by senior managers as a 'must have skill' for creative employees. It has been found that open-ended, non-structured tasks engender higher creativity than narrow tasks. This is so because such tasks present scope and challenge for employees. According to John Seely Brown, a researcher on organisational learning, learning with and from others is the secret to mastering change and driving innovation. MOOCs might not be right for all learning situations, but applied appropriately, they may accelerate that change and mastery.

1.7.3 THE HIGH ATTRITION RATE FOR MOOCS

As previously mentioned the completion rate for MOOCs courses is extremely low with many people doing the courses not interested in certification – they are just curious about a particular topic which may be a hobby or passion they are pursuing. People may just need to go in and out of a particular programme as they need specific expertise and knowledge

on a just-in-time basis. Stanford University in 2014 reported that the completion rate for MOOCs is as low as 5 to 10 per cent confirming the Penn study; although completion rates for employees doing corporate training programmes is higher.

This attrition rate is not as alarming as it looks. Some students sign up, motivated and excited that the courses are free, and then get discouraged and drift off when faced with actual work. Since there is no cost involved others may just like to try out a course to see if it suits them. Many sign up but never finish courses – they are just checking them out and had no intention of completing the course in the first place. Retirees may need to satisfy a curiosity and seek to stay intellectually sharp. Working people may need to master specific knowledge and skills that they need for a job.

As found by the Penn research many of the people who take advantage of MOOCs courses already have a university qualification. The likelihood is that they use the course to build on and expand their expertise on topics they are already fairly knowledgeable about or interested in. This means that many of the ‘dropouts’ are in fact benefiting from the courses but are not interested in completing them, sitting exams or getting certification.

‘I’m a great believer that any tool that enhances communication has profound effects in terms of how people can learn from each other, and how they can achieve the kind of freedoms that they’re interested in.’

– Bill Gates

1.7.4 DIFFERENT TYPES OF MOOCS

New types of MOOCs, with the aim of creating interaction and collaboration, are now appearing on the scene. xMOOCs, for example, includes discussion forums, and allows people to bounce ideas off each other and discuss learning together. Coursera and Edx platforms are examples of courses based on the xMOOCs model. However, the core of the course is still the instructor guided lesson. Each student’s progress through the course is linear and based on the absorption and understanding of fixed competencies. Learning is seen as something that can be tested, verified and certified often in the form of automated testing based on peer marking – for example courses in ICT such as programming.

The interaction which typically takes place between the lecturer and student in a live traditional course is unlikely to take place in an xMOOC. Questions that perplex students catch the lecturer’s attention eventually through the course process – if enough people deem

them to be important and a teaching assistant picks them up. However, this is a much more formal and less spontaneous process than you'd get in person – not really the give and take discussion that normally takes place in a live classroom situation. Nevertheless, peer assessment can prove to be helpful, consistent and objective if done correctly.

cMOOCs

cMOOCs, on the other hand, are based on a connectivist approach where learners set their own learning goals and types of engagement. The 'c' in cMOOCs stands for 'connectivist' which represents the nature of cMOOCs. The xMOOCs model is the sage on the stage where the lecturer transfers knowledge to a passive student. On the other hand, in a cMOOC environment the course participants act as both instructors and students, sharing information and engaging in joint teaching and learning experiences through intense interaction facilitated by technology.

cMOOCs are often a mixture of blogs, wikis, learning communities and social media helping students to create and construct knowledge. cMOOCs are usually organised by groups of individuals with a passion for a specific subject area rather than colleges. They create a framework or network for learning where participants from all over the world can connect, share, contribute, collaborate and learn from each other on topics of common interest. cMOOCs are open and flexible, meeting the needs of participants to provide a tailored learning experience.

Mini-MOOC

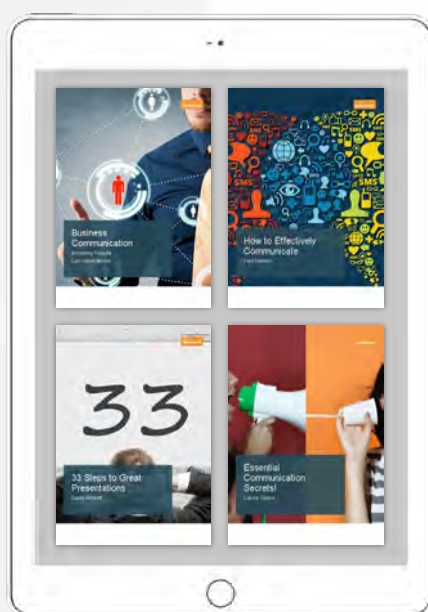
A mini-MOOC is a short illustrative video made by a company explaining a topic in a clear concise, cost effective and informative way. With a combination of the right authoring and publishing content any business can make a mini-MOOC. Anybody can make a video and put it on a site like YouTube. Similarly, anyone can now create e-learning content using the appropriate software and make it available for others. Cloud based technology and simple authoring software now enables subject matter experts to produce and broadcast powerful online learning. It can be executed primarily in two different ways.

The first is organisations within a particular industry getting together to create an online course in an area currently affecting their industry such as compliance issues like health and safety. Several L&D managers may come together to create relevant content, knowledge and wisdom in a particular subject area and share it with others.

The second is to create an internal course based on the expertise of employees. For example, if there is a need to improve sales training, the company's L&D team may work with the sales team and get them to contribute to the development of a mini-MOOC. You could interview them to capture and record their knowledge, experience and expertise which then form the basis of a valuable training programme. This captures their tacit knowledge which might otherwise never see the light of day. It also helps create a useful training resource that can be used as the standard for sales training throughout the organisation. The L&D team can incorporate their knowledge about the learning process in the design of the training programme and manage and distribute it throughout the company.

'The beautiful thing about learning is that no one can take it away from you.'

– B.B. King



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1.7.5 FUTURE OF MOOCS

So what is the prognosis for the future of MOOCs? Most experts maintain that online learning is here to stay. Students and employees around the world in colleges and companies would agree. They watch lectures on their computers and smartphones and interact with professors and their peers via email, chatrooms, podcasts, webinars and so on.

The modern average student has grown up with the Internet and is as familiar with it as the older generation were with radio and television. They are used to paying their bills online, play interactive games and stream video. When they arrive on college campus this year they will be bringing their laptops, smartphones, tablets and gaming systems with them. And they expect the information and telecommunications infrastructure on campus to accommodate their needs.

On the other side of the coin, college lecturers rely on education apps and learning management systems to organise syllabuses, upload lectures, update examinations and assignments, and keep track of individual student progress. With the advances in cloud technology all of this work can now be accommodated. It is now possible to record classes and make them available online to students who miss them.

In fact, huge amounts of workload are now moved to the cloud, centralising software services and keeping ICT costs down. The result of these advances in ICT is that college education will never be the same again.

Sebastian Thrun believes that MOOCs has a strong future in the vocational sector where it is currently making inroads – employers are more interested in the practical skills acquired by employees than in formal qualifications. The borderless training room is now a reality and is a great way to augment on-the-job training as well. The day may be coming when a certificate of completion in one company will be recognised and accepted by other companies facilitating the free movement of employees between companies.

Some experts maintain that MOOCs has a promising future as a supplement to classroom and corporate learning. There are many people who pursue knowledge through interest and curiosity rather than a desire for certification. Hobbyists and retired people interested in art and photography use courses to acquire knowledge and skills in the topics they are passionate about. In fact, MOOCs programmes are very popular with teachers who use courses to update their professional skills.

One of the big issues facing MOOCs course is recognition, certification, funding and specialisation. There is a high rate of plagiarism and cheating when it comes to online examinations. This means that colleges and employers are slow to recognise such exams

although some are awarding some credits towards their formal qualification when a certification process has been followed. For example, the University of Washington gives college credit for some of its courses taken through Coursera for students who pay a fee and complete additional assessments.

A McKinsey report on MOOCs gives some favourable indicators concerning recognition. Five of Coursera's courses have been approved for undergraduate credit by the American Council on Education. Colorado State University's Global Campus has started giving credit for the introductory computer programming course offered by Udacity if the student passes a proctored (invigilated) exam. In fact, Udacity are setting the stage with new forms of accreditation. The trend is clear; more content, lower cost and greater integration with corporate learning and communications technology. As mentioned elsewhere Google is in partnership with AT&T and Georgia Tech, offering a master's degree in computer science. Course materials will be free, but students will pay around \$7,000 for tuition.

Many MOOCs providers are beginning to specialise. Udacity, for example, now specialises in technical education and certification. NovoEd specialises in business management. The funding question is still being addressed. Many MOOCs providers charge fees for certification and sell fee-based courses to corporate clients. Some are selling their courses to colleges as supplements to their existing programmes. Others make most of their money from advertising and license fees for their learning management systems (LMS).

Many LMS companies, including new vendors like Intrepid, Moodle, Blackboard, Desire2Learn and even SAP; sell platforms that host MOOCs content. Most have authoring systems. The value of these platforms is they extend corporate LMS letting your team build its own content for internal distribution and consumption. Even YouTube could be considered a MOOCs platform. Content is not tracked or easy to buy, but there are thousands of instructional videos available, and you can easily link them to your LMS.

The business model of low-cost, high quality education offered by MOOCs could well transform college learning and corporate training and make the concept of lifelong learning a reality. Some people lack self-discipline and so may never be suitable for online classes – they need the structure, support and time-management discipline of a classroom.

'We want to build levels of confidence and competence. People management and development professionals need to be plugged in to the power of digital, so that they are able to pick up on the latest insights. And they need to understand how to implement it effectively rather than simply talk about it.'

– Perry Timms, CIPD

2 SOCIAL MEDIA AND LEARNING

- What is social media?
- What is Facebook?
- What is Tweeter?
- What is LinkedIn?
- What is YouTube?
- **What is Social Enterprise Networks?**

2.1 SOCIAL MEDIA AND WEB 2.0



Fig. 2.1 Social Media through Web 2.0

Social media is a countless range of internet based tools and platforms made possible by Web 2.0 that facilitate and enhance the sharing of information and learning between users. This new form of media helps users to transfer and share text, photos, audio, video, podcasts, cartoons and other information online with others. It can take place using personal computers including laptops and netbooks, iPads, and smartphones. Users can contact each other through social media such as online forums, communities of learning, ratings, reviews and recommendations.

Communities of learning

Social media is used by the general public, business and communities of learners. Platforms like Facebook, Twitter, LinkedIn, YouTube, and blogs among numerous others have created online learning communities where people can share information and learn from each other. Creativity is at the heart of Web 2.0. Many of the tools of Web 2.0 open the doorways to creativity by helping learners become multimedia content developers.

Communities of learning are well established in skilled crafts, medicine and education. They enable tradespeople and professionals like doctors and teachers to swap ideas and expertise, finding out what works and doesn't work. In this way they learn from each other and develop personally and professionally. They are no more than discussion groups among experts, increasingly enabled by social media. It is an effective way of dealing with the speed of change found in modern society.

For example, one of the A&E consultants in Southampton University Hospitals NHS Trust, has begun convening regular 30 minute 'huddles' in which the entire clinical team discuss difficult or unusual cases. What went well and what could have been done better are both on the agenda. This ensures that learning is captured rather than locked in the brains of a small number of experts. It ensures that new ideas are not forgotten but are applied to new scenarios and environments. More importantly, patients benefit from the initiative.

Web 2.0

Developments like Web 2.0 enable users of social media to navigate around platforms easily and generate content online. Wikis, blogs and podcasts are particularly popular with trainers. Many of these technologies are user-friendly, free and are not technically complex to use. Web 2.0 has been defined as "The social use of the Web which allows individuals to collaborate, encouraging them to become active participants and/or producers in knowledge creation and to share information online."

Web 2.0 has helped to democratise ICT in business and in homes. It operates from the bottom up and gives a voice to workers but needs to be monitored and policed in an appropriate fashion. Unlike enterprise resource planning (ERP) and customer relationship management (CRM) where most users simply process information in the form of reports or use the technology to execute orders, Web 2.0 are interactive and participatory and capitalise on the fact that workers are likely to possess social media skills already. Users generate new information and content or edit the work of others.

Google has embraced Web 2.0 technologies with open arms. The company's engineers use blogs and wikis to report on the progress of their work. Managers stay abreast of their progress and provide direction by using tools that make it easy to mine data on workflows. Engineers successfully coordinate work with one another and requesting backup help when needed. The easily accessible project data allows senior managers to allocate resources to the most important and time sensitive projects.

Reviews are one of the key areas that have emerged providing easier participation and connection with other users. Potential customers of shops, restaurants and hotels are more interested in other users' recommendations than information provided by businesses. TripAdvisor and Amazon.com are good examples of customer reviews that are widely consulted before buying decisions are made. In addition, Amazon.com uses technology called System for Managing Agents in Real Time (SMART Agents). This intelligent software learns about a customer's interests from their purchasing history and then makes suggestions about buying intentions.

Web 2.0 and Learning

People can now interact and learn continuously from each other. We can now learn collaboratively from others, work on problems and generate and seek new forms of knowledge. This was not possible a few years ago. For example, Wiki provides learner opportunities to engage with, reflect on, create and edit content with others. This extends learning beyond the boundaries of the conventional classroom. Blogs enable users to post and organise information they wish to share with others, thus creating a discussion forum. Blogs give users an outlet to publish and share their ideas. Potential authors can develop their writing skills through blogs.

Virtual worlds are another major development for learning made possible by Web 2.0. They facilitate human interactions for social and commercial purposes. They are mainly used for training of emergency personnel such as firefighters, ambulance crews and police. However, they are also used to help business learners improve soft skills, ethics, sales techniques, negotiation as well as cultural, spatial and situational awareness. One of the main characteristics of virtual worlds is learning by doing, enabling users to learn and practise in a risk free virtual space. These innovative approaches have been applied in marketing and selling education to customers.

A University of Colorado research study found that procedural knowledge was 14 per cent higher and retention was 9 per cent higher for those trained using the active engagement of virtual environments. Other researchers also credit the impact due to the adrenaline rush of a game that fixes elements of memory making them more memorable.

Marketing education and training activities now extend into virtual worlds, with a primary focus on understanding virtual shoppers, designing and executing virtual marketing plans, and building brand equity in virtual worlds. Some programs enable marketing research students to monitor competition and trends. Sales students can experience new selling environments populated by major firms in a risk-free virtual space. Internet marketing students can learn in-depth about new Internet marketing and communications channels.

With Web 2.0 learners can easily create content and share information globally and quickly with others using social networking sites. In formal education social media technologies have been used to help students network, collaborate, and share learning resources easily with each other. It can also be used to keep learning colleagues in touch between sessions and after the formal learning programme has ended.

Nearly every occupation in the modern world requires a basic level of computer literacy with keyboarding skills, web navigation, email access, texting and participation in social media essential. The variety of learning applications social media can be used for is only limited by learner's imagination.

Social media can be used externally to network online and learn about current trends in a specific field. This can help you discover new sources of knowledge, expertise and learning developments. Social media can be used internally for knowledge sharing, building up a sense of community, and increasing interdepartmental collaboration. Internal social networks can also be valuable for bringing governance, ethical and policy issues to employees' attention.

Companies exploiting Web 2.0 technology

Agilent, an American public research, development and manufacturing company, bought iPads in 2012 for training purposes. The aim was to accelerate the development of 42 participants, dispersed throughout the globe, on its leadership development programme. The iPads had content stored on them including an e-book that contained the company's training materials and multimedia content, such as video clips, where appropriate. It included an app to enable participants to reflect on what they learned and how to apply it.

In a general sense, social media can be used by companies to inform and educate the public about the company's business and its concern for the environment. For example, In 2012 Maersk Line, the largest container shipping company in the world, not only won the Community Presence in social media award, but also the prestigious Social Media Campaign of the Year award. The jury chose Maersk because they had secured 420,000 fans on Facebook in addition to a comprehensive presence on 8 other social media platforms in

less than 11 months. The jury said the company's social media program has changed the face of Maersk Line and is a role model for other companies to follow.

We will now explore in more detail these social media platforms which are making such an impact on all our lives.

'Creativity, once a trait avoided by employers, is now prized among employers who are trying to create the empowered, high performance workforce needed for competitiveness in today's marketplace.'

– Dr. Jacquelyn Robinson

2.2 FACEBOOK

Facebook started in the USA to help some college students to stay in touch with each other after leaving college. Facebook was created in 2004 by Mark Zuckerberg while at Harvard University. Today, it is the world's largest social network with more than one billion users worldwide. If Facebook were a country it would be the third largest in the world, behind China and India. Although originally intended just for social networking, Facebook is now used extensively for social learning and marketing. *Social learning* is about people connecting, collaborating, and learning from, and with one another on a daily basis at work.

Many people have a Facebook page and similarly most businesses now realise the importance of having a Facebook presence to keep in touch with their customers. In particular, students, with few exceptions, have a Facebook account and know how to use it. Most Facebook users have easy and frequent access through smartphone apps.

If you are looking for an efficient way to engage and communicate with other people, to handle their opinions and comments and to learn from them, then you will find Facebook to be extremely beneficial. From a business point of view it would be very foolish to ignore the potential of Facebook as a way to increase business, improve communication and have instant access to customers and employees. Facebook is one of the most popular sites on the Internet with more than one billion members. Some companies have a job page on Facebook advertising full-time and part-time positions and providing a showcase for their company and culture.

The most popular feature of Facebook is arguably the Wall. This is essentially a virtual bulletin board. Messages left on the Wall can be text, video or photos. Another popular

component is the virtual Photo Album. Photos can be uploaded from a desktop computer or directly from a smartphone. An interactive feature allows the member's contact to comment on each other's photo and identify (tag) people in the photo. A similar feature is available to upload short videos. Another popular feature is a profile component (a microblogging feature) that allows members to broadcast short Twitter-like announcements to their friends.

Facebook and learning

A 2001 study from the Harvard School of Education found that learners who studied in groups were more engaged in their studies, were better prepared for class, and learned significantly more than those who worked on their own. Marketing professionals have long realised the part tools like Facebook, LinkedIn, Twitter and YouTube can play in social learning and bringing the products and services of their companies to the attention of their customers.

Universities use Facebook to plan social events, and students use it to join university groups and to keep up with what is happening socially in colleges. Students use it to make contact with their peers thus enriching their social life. Learning facilitators can resolve questions about course materials from students and promote peer-to-peer student learning.

Facebook is a popular free social networking website allowing registered users to create profiles, upload photos and video, send messages and keep in touch with fellow learners, friends, family and work colleagues. Facebook can help lecturers and corporate trainers build learning communities, give out assignments, and offer learning tips and tricks to their learners. Learning facilitators can upload educational videos, articles and quizzes to help their learners learn more effectively.

Learners can join likeminded groups of people and share information on books they've read or films they've seen. Trainers can publicise an event, invite guests and track who plans to attend. The ways you use it are only limited by your imagination. It can be used socially, for personal, business or educational purposes.

Lecturers using social media can take a supportive role in facilitating and guiding the overall learning experience for students, providing them with feedback as needed. A 2014 CEB Learning Quarterly research study, 'Building a Productive Learning Culture' found that only 20 per cent of people are effective learners on their own. The rest of us need to be supported, encouraged, cajoled, and prompted by a learning facilitator to organise and overview the learning process and take action as appropriate.

Learning facilitators use Facebook to build up a relationship with learners while at the same time encouraging them to collaborate and exchange learning with each other online. They can use it to post useful information such as news updates, future events, weekly assignments, changes in timetables, forthcoming examinations, tips on study, learning, time management and exam technique and class materials. The more adventurous learning facilitators can use it to upload videos, pictures, quizzes, questionnaires, surveys, and games thus making the whole learning experience more entertaining, interactive and fun for learners.

For example, lecturers could use video clips from YouTube to supplement their lectures, record and broadcast their class online, use wiki technology to facilitate collaborative writing for class projects, and use Facebook to communicate more timely and effectively with their students. Quizzes could be designed around critical learning topics to engage the interest of learners. Questionnaires can be used to determine student learning styles. Surveys can be employed to ascertain the views of learners. Research papers can be uploaded to help students with their assignments. Important class discussions can be recorded by video and uploaded on Facebook. A similar approach could be adopted by learning facilitators for corporate training.

Independently learners with common interests can form social networks to create an environment and infrastructure for informal learning. Students can use Facebook to communicate with peers regarding questions about topics, tasks and exams. They can clarify issues, ask questions, and get answers from peers and also from their learning facilitator. In addition, they can use it to collaborate on group assignments and projects. It also provides learners with an outlet to share their real-life experiences with fellow learners. Some colleges encourage students to use discussion boards to share their knowledge and get feedback from peers on complex points that they find difficult to understand. Discussion boards are more efficient for question and answer sessions than allowing a designated time after lectures to ask questions.

It seems students like lecturers to put personal information about themselves on their website. This self-disclosure encourages students to develop a positive attitude and trust towards their teacher and the course. This provides a rich source of student motivation and positive attitude towards learning.

Such networking encourages collaboration among learners, not only in colleges but in corporate settings as well, allowing them to easily create and share new knowledge. For example, one of the tools Telus, a Canadian telecom company, uses to enhance collaboration among its call centre members is a wiki called Fixopedia. This tool allows employees to log issues they're having and share solutions and learning with their work colleagues. Previously they had to wait for a formal training session to do that.

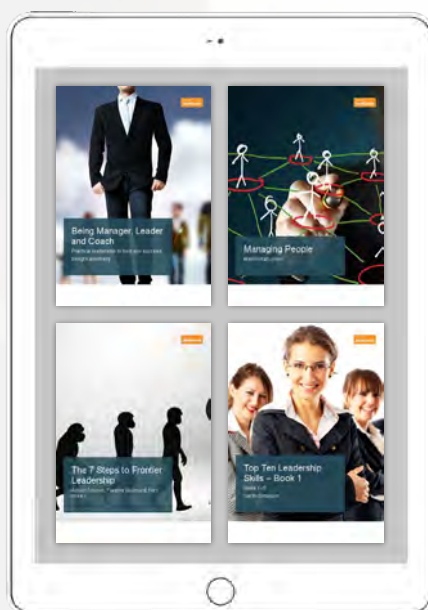
2.3 TWITTER

Twitter is a free microblogging service that allows registered members to broadcast posts called tweets. In 2013 Twitter claimed it had more than 200 million Twitter users creating more than 400 million tweets per day.

Twitter is a blend of instant messaging, blogging, and texting, but with brief content and a large potential audience. It provides a stream of quick updates from friends, family, scholars, news journalists, writers and experts. US President Donald Trump uses twitter to express his views on various issues.

Twitter allows users to send and receive short messages from other users. Hashtags on Twitter (as well as other social media platforms) give users a quick and easy way to express their likes, dislikes, interests and concerns. Tweets can be used on a mobile phone just like a text message. This is a great source of feedback and learning about products and services for a business.

Twitter is thus a great source of information and education. You can learn about what is going on around the world. If you have a talent for writing you can share something with others you found interesting about your day. Tweets are confined to 140 characters which



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promote focused and clever use of language making tweets very concise and digestible. The size restriction has made twitter a very popular social tool. Nevertheless it is possible to extend your twitter size by including links to articles, photos and video feeds.

Registered members can include members of the general public, journalists, academics, business people, and politicians. Members can broadcast tweets and follow other users' tweets by using multiple platforms and devices. Sometimes news can break on Twitter before its broadcast on conventional TV and radio channels. The smartphone has given everybody the capacity to report news stories instantly from anywhere around the world.

It is reported that the news about the death of Osama bin Laden first broke as a tweet. Current affair programmes on TV often use tweets to get real time information and opinions on subjects that are being currently debated. Businesses use Twitter to communicate promotional offers, post company news, and make public relations announcements, providing customer feedback. It is particularly used in marketing to track customers' reaction to new products.

Twitter and learning

Twitter facilitates educators to bring real-world marketing concepts to the class in a timely fashion. For example, as marketing stories unfold in the popular press, concepts can be communicated to the class in real time, bringing fresh, contemporary examples. The tweets, supplemented by shortened web addresses, enable the class to access up-to-date and relevant news stories instantaneously.

There are many benefits of using twitter in marketing courses. These include engaging and enhanced learning about marketing, digestible pertinent information, timeliness, greater realism through the introduction of real-world examples, and the development of information and communication technology skills.

Twitter can be especially useful for learners to keep in touch with fellow learners about current learning issues. It should be considered a supplement rather than a substitute for other learning technologies such as email and texting. It has been used by lecturers to continue the classroom discussion of students beyond classes. Thus users can use twitter to share information, news, recent developments, experiences, opinions and knowledge, so that it can be a great source of learning.

'Technology allows learners to move through conceptual space at the speed of light.'

– David Thornburg

2.4 LINKEDIN

LinkedIn is a social networking site designed specifically for people who want to profile their skills for prospective employers or for the business community. Registered members can network with people they know and trust professionally. LinkedIn is popular among self-employed people as a networking tool to find clients. Some employers use LinkedIn to post company profiles and source potential candidates for vacant positions. Royal Brompton Hospital based a nurse's recruitment campaign solely around LinkedIn and Twitter.

Some companies use it for discussion groups and as a forum for communities of learning. As most people aren't actively looking for a job, it's a good way to find and influence the passive market. They may also use it to network with other companies. It is also a great place for sharing your activity through networking with others, joining discussions and groups on specific topics.

In June 2016 Microsoft bought LinkedIn for \$26.2 billion. The acquisition, by far the largest in Microsoft's history, joins two companies with different business backgrounds. Microsoft is a big maker of software while LinkedIn is a business-oriented social networking site, with more than 400 million members worldwide. Microsoft is moving quickly to cloud computing – a model where customers rent software and other services delivered over the Internet. On the other hand, LinkedIn does not have the household name of Facebook, a much larger and more lucrative social network. However, it is the most widely used site for people to advertise their professional skills and work history.

2.5 YOUTUBE

YouTube, which is owned by Google, is an online video-hosting service that lets people share their videos among friends and family, as well as a showcase for emerging talent including new and experienced videographers. Google bought YouTube in 2006 for \$65 billion. It is funded mainly through advertising revenue.

YouTube is designed primarily for people who want to publish videos they have created. It is especially appealing to people with specialist interests as there are a vast range of topics on video to suit all pursuits. For example, there is a vast range of educational videos on YouTube which users can watch and study to learn about interesting topics. YouTube is the most frequently used social media tool in the classroom. It can improve students' digital skills, topic knowledge, and provide opportunities for peer learning and problem solving.

Studying information on video is one of the best media as regards remembering and retaining subject matter. It can also help students to visualise real-world applications of theoretical concepts. Companies put training videos on YouTube aimed specifically at the identified training needs of their employees. High quality video is now cheaper to make so that companies find it economical to upload good quality learning material on YouTube. This is a great way to meet the needs of their learners and showcasing their professionalism and brand on the Internet.

While several companies and organisations also use YouTube to promote their business, the vast majority of YouTube videos are created and uploaded by amateurs. People also use YouTube to post instructional videos, such as step by step computer help, do-it-yourself guides and other how to videos. While YouTube can serve as a business platform, most users just use it for fun and to learn about topics that interest them. Students can use it to get a good overview of educational topics. Some non-fiction writers use it as a valuable source of information for their research.

Most people have digital cameras or smartphones with photography and video recording capability. This means that more events are now captured on video than ever before and these can be quickly uploaded on YouTube. The ubiquitous nature of smartphones means that anything done in public can be captured on video.

Amateur smartphone recordings are now often the first to capture breaking news events such as major accidents, natural catastrophes or terrorist attacks. This means that everybody with a smartphone is now a potential journalist and news broadcaster. In addition, YouTube has emerged as a major campaigning tool for politicians. In the 2008 presidential campaign videos of Barack Obama was viewed more than 2 billion times according to media firm TubeMogul. The more recent debates in 2016 between Hillary Clinton and Donald Trump attracted millions of viewers worldwide.

'Despite the headaches they can cause, sites like Twitter, Facebook, and YouTube are powerful tools for spotting trends and communicating with employees and customers.

– Brian J. Dunn, 'Best Buy's CEO

2.6 BLOGS

Blog is an abbreviation of the word weblog. A blog is a personal journal or diary uploaded on the Internet and updated frequently. It may cover topics you want to share with the world that you are passionate about. Originally blogs were places where people used to write about their daily activities.

The person who keeps a blog is called a blogger and the activity of writing a blog is called blogging. Bloggers have an opportunity to reach hundreds or even thousands of people every day. Today's blogs can cover a wide range of subjects including new ideas, expertise, up-to-date news, learning tips and tricks, DIY information, mobile technology and health and sport. Some organisations encourage their employees to use blogging as a peer-to-peer learning tool.

Blogs may have links to other sites and provide a way for people to leave comments about the article. Companies and institutions usually have their own blogs. Retail stores feature their products. University sites contain information about college courses and faculty. Company trainers may want to showcase new research in learning and development. News sites have the latest breaking news. People may express their opinions, views and observations. All the blogs will need to be updated frequently as most people have little reason to visit a website more than once.

Software that manages your website is called a Content Management System (CMS). Many blogging software programs are a specific type of CMS. For example, WordPress is an advanced blogging tool with good features. WordPress simplifies the process of publishing your blog on the Internet.

'There are three hallmarks of social media: Evolution, Revolution and Contribution. First, it is an evolution of how we communicate, replacing email in many cases. It's a revolution: For the first time in history we have access to free, instantaneous, global communication. We're living in an exciting time! Third, social media is distinguished by the ability of everybody to share and contribute as a publisher.'

– Mark W. Schaefer

2.7 SOCIAL ENTERPRISE NETWORKS

For a growing number of companies, the way to help employees keep up-to-date is social media – collaborative, just-in-time, relevant and presented in a workplace context. Yammer is a private microblogging and collaboration platform for social enterprise networks. Unlike public social media platforms such as Twitter, Yammer only allows members to connect with other members who belong to the same email domain. This unique feature gives corporate employees the ability to communicate privately, using a graphical user interface (GUI) resembling Facebook.

Yammer offers freemium membership, providing optional upgrades for a fee. The premium version, which comes with a small per-user license fee, includes features such as Twitter integration. Yammer allows learning to take place where employees naturally meet and congregate.

Some companies have developed their own corporate versions of social media. Social enterprise networks (SEN), are private internal software platforms designed to help employees learn more effectively. They foster collaboration, communication, knowledge and expertise sharing and the learning of information. SENs help employees find experts and peers who can answer their questions about specific problems when and where they need them.

SENs evolved from corporate intranets and extranets in the 1990s which were used for knowledge sharing. By the early 2000s, networking technology had advanced into public platforms like Facebook, LinkedIn, Twitter and YouTube. SENs have all the functions of these social media but are private and secure within the organisation.

Some of the more common functions of a SEN platform include activity streams, discussion forums, user groups, private messaging, names of subject matter experts, searchable knowledge base, file-sharing, tagging and bookmarking. These functions provide optimum learning opportunities for adults as they like to learn in 5–20 minute bursts in between projects,

calls and meetings. Their learning is even more memorable and effective if they are asked to respond and react to the learning by writing their views online.

SENs can be developed internally or supplied by a software vendor. They can be installed behind a firewall or offered as cloud-based technology. They can be integrated to work with other enterprise software applications such as human resources information systems, talent management systems and learning management systems.

The benefits of an SEN include cost reduction, improved employee engagement, open collaboration, increased innovation, bridging the gap between formal and informal learning and increased business performance and competitiveness.

It is known that informal learning is estimated to be in the region of 70 to 80 per cent of all learning within companies. This means that including social networking in learning strategies provides a more comprehensive employee learning environment.

Companies using social networks as a learning tool

General Electric Co. (GE), a US based company, has an internal social network called GE Connect, and its own video sharing platform, GE Video Central. Both are used to support learning events and create a more connected workplace learning community. GE uses its older experienced workers as subject matter experts to lead social media discussion. This informal mentoring and coaching encourages them to learn about social media while at the same time helping them develop the skills for use in a global business environment.

Another company with its own version of social media is Sun Microsystems. This company uses its own tailor-made Social Learning eXchange (SLX) to share best-selling practice by uploading videos from peers on how they sell a particular product or service. Analogous to a corporate YouTube, SLX allows Sun employees to record and post any type of content, from documents to videos. These can then be viewed and studied by employees when convenient to do so on anything from a desktop computer to an iPod.

US based DeVry University, is one of many institutions that link up with corporate clients to design customised learning using social media for a firm's specific learning needs. Some of the courses count as credit towards a degree. Formal qualifications from accredited universities are still attractive for employees to study for, particularly those facilitated by social media and e-learning technology.

'The PC has improved the world in just about every area you can think of; amazing developments in communications, collaboration and efficiencies; new kinds of entertainment and social media; access to information and the ability to give a voice to people who would never have been heard.'

– Bill Gates

2.7.1 BENEFITS OF SOCIAL MEDIA

In a 2013 MIT Sloan Management Review report, companies cited social business software as important to the following organisational objectives:

- Improve or increase collaboration (71 per cent).
- Identify expertise and internal knowledge (60 per cent).
- Improve productivity (56 per cent).
- Break down internal silos (52 per cent).

Additionally the following benefits are often achieved

- Social media structures allow learners to connect with their fellow learners before, during, and after a formal training course. This provides learners with the peer support they need to discuss and hopefully to apply the new theories or practices that they learned.
- Business people use social media such as Facebook and LinkedIn to create a personal brand on the Internet. Similarly, it can be used when job seeking or making contacts with other people in your profession or occupation. Potential clients and employers can check your educational qualifications and experience online. Getting a job is easier if someone knows something about you supported by references and recommendations from credible sources. Building up relationships in other companies may enhance your prospects when seeking work elsewhere. Similarly, businesses can use social media to increase brand awareness and sales. This is much cheaper than traditional advertising and promotional activities.
- Social media users give and receive information with others rapidly. Outside of the formal learning sphere they share views and opinions, tips and tricks, and even DIY projects.
- Social media can be used to carry out surveys. These surveys can help you identify the business's learning needs and evaluate training programmes. The feedback will help the business design better learning programmes tailored to your specific needs.

- Social media tools can be highly effective for collaboration and learning if people are sensible and follow guidelines. Many organisations enforce standards of conduct which instil a corporate set of values. Social media can help promote creativity, interaction, and learning in adults and children.

2.7.2 DISADVANTAGES OF SOCIAL MEDIA

Some employees may use corporate social media for private purposes. Social media often poses security issues. It may be used in a negative rather than a positive way. Customers may criticise your business on social media. Hackers may pose a risk to the business. Some people exaggerate the reliability of data on the net. Research suggests that too much use of social media can hamper the development of social skills. The following are some of the drawbacks of social media in more detail.

- The term social is unfortunate as it may be interpreted by organisational stakeholders as wasting time. This is a concern of some companies who may fear that employees will abuse their position by using social media for private, recreational or inappropriate purposes. Some studies now suggest that using social media can become addictive.
- There may be concerns about security and privacy issues. Companies may fear the potential loss of intellectual capital. Employees may divulge sensitive, proprietary, or confidential information contrary to company policy damaging the company's competitive standing. They may say things that undermine the credibility of management or the entire company harming the company's brand and reputation at the blink of an eye. Information is so up to date that even giant news broadcasters such as CNN and Fox News search Twitter for the most current situations.
- The older generation are more concerned with privacy and security issues. This is not an issue with the younger generation who are more confident using modern technology and often fail to consider the long-term consequences of privacy and security implications. This is why a company needs a good social media policy. However, employees should be trained in its use.
- Social media may be used in a negative rather than a positive way. Some perverse people may use it for cybercrime and to undermine, insult and bully other people, damaging lives, eroding confidence, destroying self-esteem and self-worth. In addition, they could make false claims about products or services. As a result, ideas that are poorly researched or advanced by individuals with hidden agendas can spread quickly in today's connected Internet environment. This could expose the company to legal liability for defamation, fraud or deceptive advertising, as companies may be found liable for an employee's conduct committed during the course of business.

- Negative publicity is always a possibility because of customer criticism about company products or services. However, a quick response may help to minimise the damage but unfortunately it can't erase the criticism from your page. On the other hand, failure to respond to negative feedback may damage your business.
- Hackers pose another threat to a business. They can put false and malicious information on social media about your business that can quickly go viral. Make sure you take adequate security measures when you create and share passwords.
- Some people get a bit complacent regarding the quantity and quality of information on the Internet. They may think that the information procured on the net is totally reliable and up-to-date, accepting it at face value, without checking it out and they may not go any further with their research.
- In 2014 researchers at the University of California Los Angeles found that too much use of social media can hamper the development of social skills because of the absence of face-to-face contact. In addition, it may affect the mental health of children who can become narcissistic, antisocial and aggressive thus adversely affecting their emotional intelligence. The American Academy of Paediatrics found that too much screen time has been linked to childhood obesity, sleep disorders, behaviour problems, and academic challenges.
- You will need to commit time and resources to manage your social media presence, responding to feedback and producing new content.

In any event learning and development professionals will need to work with the ICT and legal department to design suitable policies that encourage compliance. They also need to monitor the use of the social media networks by employees to ensure that it is properly managed.

Social media is the ultimate equalizer. It gives a voice and a platform to anyone willing to engage.

– Amy Jo Martin

2.8 SUMMARY

E-learning has proved to be an efficient and cost effective method of learning. The perceived benefits of e-learning are cost savings, accessibility, just-in-time learning, increased instructor availability, ease of use, fast distribution, self-paced learning, and ease of changes in content. The ubiquitous nature of modern technology and the smartphone means that e-learning can be made accessible to anybody interested in learning.

Colleges and corporate trainers have incorporated mobile technologies into their programmes to help them offer a more immediate, accessible and relevant learning experience to their learners. Social media structures allow learners to connect with their fellow learners before, during, and after a formal training course. This provides learners with the peer support they need to discuss and hopefully to apply the new theories or practices that they learned.

Social media is a range of internet based tools and platforms facilitating and enhancing the sharing of information and learning between users. This new form of media can transfer text, photos, audio, video and information instantly between users. It uses personal computers including laptops and notebooks, iPads and smartphones.

Platforms like Facebook, Twitter, LinkedIn, YouTube and blogs among many others have created online learning communities. These allow people to share information and learn from their peers. The benefits of social media include improved collaboration, increased productivity, keeping up to date with current events, and the sharing of expertise and knowledge.

For a growing number of companies, the way to help employees keep current is social media – user friendly, collaborative, just-in-time, relevant and presented in a workplace context. Some companies have developed their own corporate versions of social media.



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Social enterprise networks (SENs) are private internal software platforms designed to help employees learn more effectively.

Intelligent tracking systems will identify learning needs and remind learners of goals that have not yet been met, and suggest learning experiences covering the required expertise or subject area. SENs foster collaboration, communication, knowledge and expertise sharing and the learning of information. They help employees find experts and peers who can enlighten them about specific work related problems when and where they need to.

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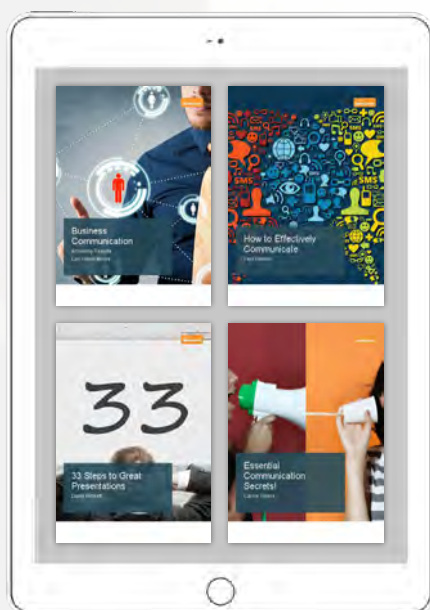
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