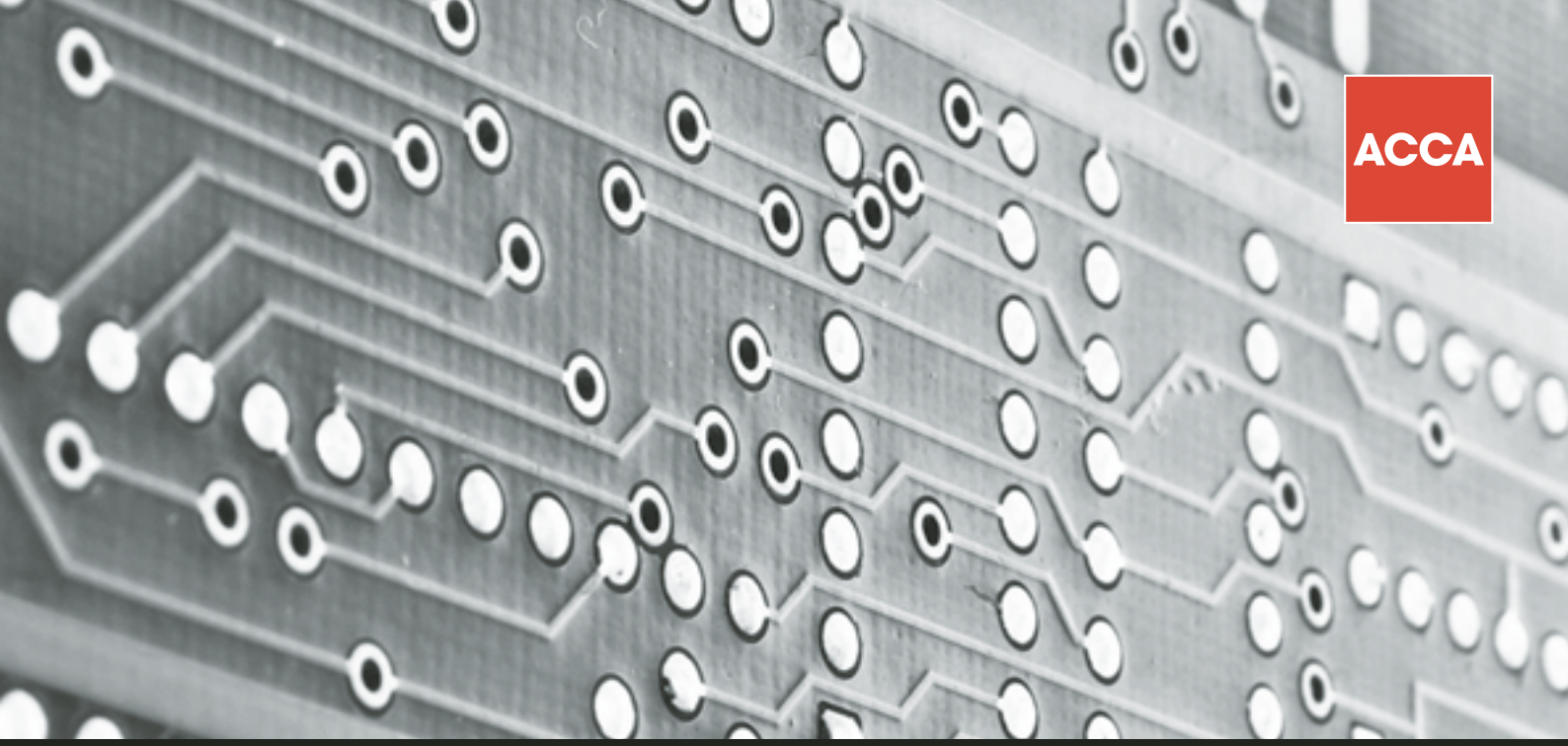
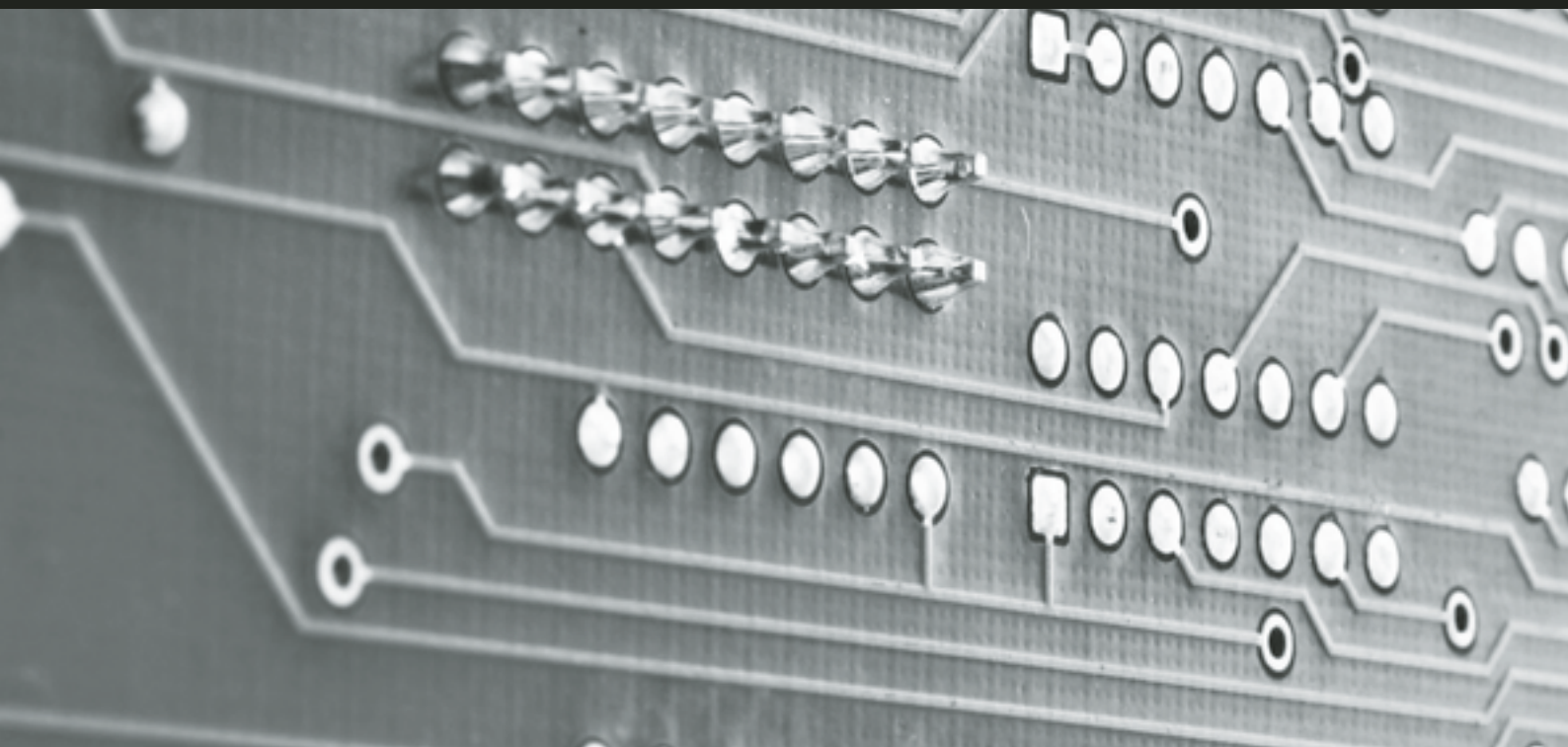


ACCOUNTANTS FOR BUSINESS

The e-professional: embracing learning technologies



ABOUT ACCA

ACCA (the Association of Chartered Certified Accountants) is the global body for professional accountants. We aim to offer business-relevant, first-choice qualifications to people of application, ability and ambition around the world who seek a rewarding career in accountancy, finance and management.

Founded in 1904, ACCA has consistently held unique core values: opportunity, diversity, innovation, integrity and accountability. We believe that accountants bring value to economies in all stages of development. We aim to develop capacity in the profession and encourage the adoption of consistent global standards. Our values are aligned to the needs of employers in all sectors and we ensure that, through our qualifications, we prepare accountants for business. We work to open up the profession to people of all backgrounds and remove artificial barriers to entry, ensuring that our qualifications and their delivery meet the diverse needs of trainee professionals and their employers.

We support our 147,000 members and 424,000 students in 170 countries, helping them to develop successful careers in accounting and business, and equipping them with the skills required by employers. We work through a network of 83 offices and centres and more than 8,500 Approved Employers worldwide, who provide high standards of employee learning and development. Through our public interest remit, we promote the appropriate regulation of accounting. We also conduct relevant research to ensure that the reputation and influence of the accountancy profession continues to grow, proving its public value in society.

ABOUT ACCOUNTANTS FOR BUSINESS

ACCA's global programme, *Accountants for Business*, champions the role of finance professionals in all sectors as true value creators in organisations. Through people, process and professionalism, accountants are central to great performance. They shape business strategy through a deep understanding of financial drivers and seek opportunities for long-term success. By focusing on the critical role professional accountants play in economies at all stages of development around the world, and in diverse organisations, ACCA seeks to highlight and enhance the role the accountancy profession plays in supporting a healthy global economy.

www.accaglobal.com/accountants_business

This paper reviews how online approaches to learning and assessment are affecting professional development, and the impacts this is having on employers of finance professionals.

It presents the world of the e-professional based on research among training and development experts, and it explores what the future of online learning and assessment may look like.

Executive summary

E-learning is very much the norm today. But can we use technology better? Can we take it further? Can we be more exciting with it? The answer to those questions is yes.

RICHARD POLLARD, GLOBAL DEVELOPMENT LEADER, PwC

BACKGROUND

In 1990 the first successful connection was made via the internet. By the beginning of 2011, the number of internet users exceeded two billion worldwide and the number of mobile users surpassed five billion.[1] 35% of smartphone users say they now interact with mobile apps before getting out of bed in the morning.[2]

Technology is now embedded in the workplace: nearly all numerical and written work is done via computers, and the way we carry out research, analysis and assurance has been transformed by technology and access to the internet. Today's graduates and professionals know nothing else. In less than one generation, we have come to take the digital world for granted.

The digital world has inspired new linguistic shorthand, both within and outside the workplace. Terms such as iPhone, iPad and iPod, e-commerce, email and e-cards have global currency. As more and more activity goes online, finance professionals are keeping up with regulation, filing reports, accessing data and so on, remotely in cyberspace. They are truly becoming 'e-professionals'.

In the sphere of e-learning, momentum is growing fast. In a recent professional learning and development poll, 25% of organisations agreed that e-learning was the single most important development in learning and talent development in recent years.[3] And one in four organisations say they now allocate 30% of their training budgets to e-learning; this compares with one in 10 just two years previously.[4]

ABOUT THIS REPORT

This report explores the world of the e-professional, focusing on three areas:

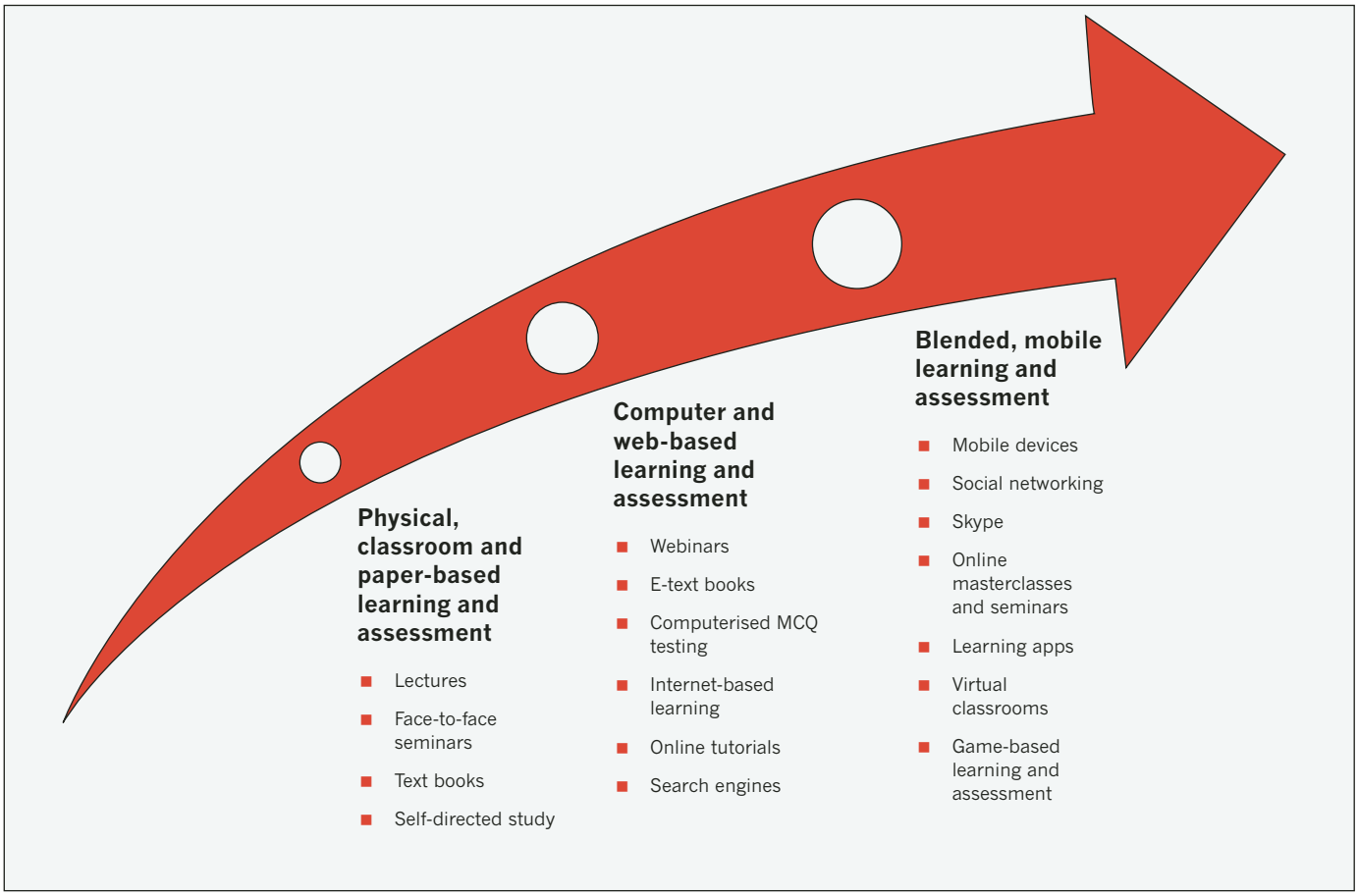
- how online approaches to learning and assessment are affecting professional development at an individual level
- the impact these learning technologies are having on employers of finance professionals and their interactions with their customers and clients
- what the future of online learning and assessment may look like.

The report was developed by ACCA in collaboration with the strategic research and consulting group, Lighthouse Global (www.lighthouseglobal.eu.com). The content was created from a combination of primary and secondary data sources, and a series of conversations with the following training and development experts from across the world:

- May Chan, learning designer, Standard Chartered Bank
- Damian Day, head of education and registration policy, the General Pharmaceutical Council
- Laura Overton, managing director, Towards Maturity
- Greg Owens, director of technical training and student qualification, BDO
- Richard Pollard, global development leader, PwC
- Martin Ripley, CEO, World Class Arena
- Jim Robertson, VP, tax, Eastern hemisphere, and global tax practices, Shell
- Martin Taylor, CEO, BPP Business Schools
- Kristin Watson, director, national exam training team, Ernst & Young.

1. UN Telecommunications Agency, January 2011.
2. *From Apps to Everyday Situations,* Ericsson, 2011.
3. International Learning and Talent Development Survey, CIPD, 2011.
4. *Accelerating Performance Benchmark Study 2010–11,* Towards Maturity, 2011.

Exhibit 1: Technology provides more sophisticated learning and assessment options



We sincerely thank the panel for sharing their time and perspectives on the relevance and application of technology in the learning and assessment of professionals today and in the future.

CONCLUSIONS

The panellists point to two key reasons for the shift in attitudes and the dramatic rise in uptake of learning technologies during the first decade of the 21st century.

- First, e-learning provides more sophisticated options for knowledge acquisition and application, largely thanks to the increased capabilities of mobile devices, technologies such as Skype, learning apps and game-based learning. This trajectory of increasing sophistication is outlined in Exhibit 1.

- Second, technological developments are driving new learning approaches which are considered to be more flexible and fit for purpose. Learning programmes now fit around work, rather than work being accommodated around study leave.

This sophisticated blend of learning approaches is facilitating a much more strategic approach to professional development. Organisations are integrating learning technologies into their growth plans to ensure that they capture the advantages of flexibility, innovation and sophistication that can be realised through a technology-enabled people strategy.

The panellists are in no doubt that the developments we have seen so far are merely the tip of the iceberg, and that further shifts will follow, driven not just by technology, but also by global factors, strategic change and professional endeavour.

> There are ways that we can all make use of technology which would be more innovative for tuition and learning going forward. This will take time to explore. I expect to see significant changes in blended learning, assessment and online learning.
>
> KRISTIN WATSON, DIRECTOR, NATIONAL EXAMINATIONS TRAINING TEAM, ERNST & YOUNG

> The way professionals live and learn has changed. We are experiencing the shift to a generation who have always known the net. E-learning recognises this shift, and that professionals are not as linear as they once were. They don't start at A and end up at Z; they learn in a much less structured way.
>
> DAMIAN DAY, HEAD OF EDUCATION AND REGISTRATION POLICY, THE GENERAL PHARMACEUTICAL COUNCIL

Foreword

ACCA commissioned this report to help gauge the extent to which employers of accountants and finance professionals are adopting technology-enabled learning and assessment and the key drivers for this adoption.

According to Lighthouse's research, e-learning and assessment within finance development is already widely accepted and will only accelerate as barriers to access around the world are overcome.

The panellists help dispel some common myths around technology-enabled development. Chief among these is that e-learning and assessment solutions lack sophistication and rigour. The types of learning experience these experts describe demonstrate the richness and complexity that technology can add to development. From connecting virtual global teams through collaborative learning to simulating real-life situations with which professionals are faced, the panellists' message is clear: organisations are embracing these technological advances because they can create a better learning experience as well as more challenging and realistic tests of skills and competence and because they fit with the preferences and expectations of the 21st century finance professional.

Another popular misconception is that technology is only suitable for technical or regulatory training. The truth is that while e-learning and assessment is very well suited to this area, the biggest growth areas for technology-enabled training at the moment are in leadership and management skills.

A third common perception is that the adoption of e-learning and assessment is driven solely by a search to reduce costs. While it is true that, on the basis of the research findings, e-learning and assessment is seen as offering better value for money than physical classroom and paper-based alternatives, the greatest advantages it brings for those experts interviewed in this report are flexibility, sophistication and innovation.

In the executive summary to this report, Richard Pollard, global development leader at PwC poses the challenge: 'Can we use technology better? Can we be more exciting with it?' ACCA's answer to both questions is a resounding 'yes'. And it's a challenge we are committed to, on behalf of the global community of employers, members and students we serve.

In June 2011, we announced that ACCA will be working towards delivering all its examinations online through an innovative and forward-facing programme of e-assessment. This will lead to a new generation of professional examinations that maintain the rigour and quality associated with the ACCA brand and appeal to the coming generation of e-professionals, employing technologies they will increasingly be using in their social lives.

In embracing technology-enabled learning and assessment, ACCA will above all be seeking to align what it offers to the needs of employers, consulting with them across all sectors and in all markets so we can develop a qualification and a mode of assessment that deliver the skills organisations need in a way that works with their business models.

Clare Minchington,
Executive director – learning and products, ACCA

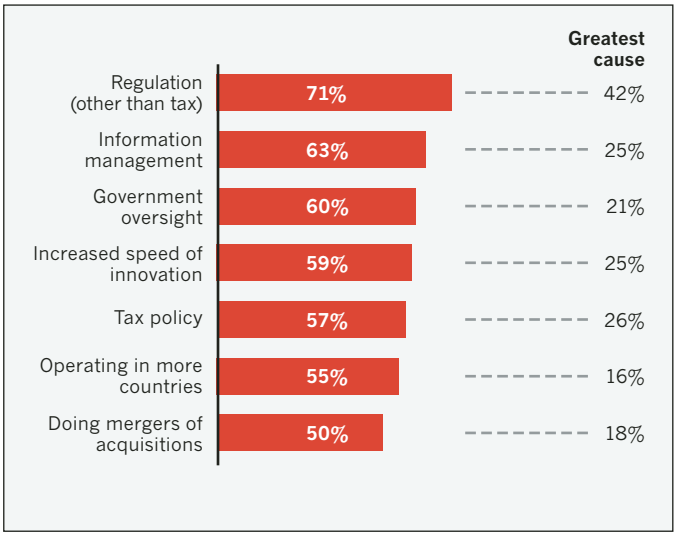
The driving forces of talent strategies

The panellists emphasise that now, more than ever, organisations cannot remain static when building an effective work and learning environment for finance professionals. The constantly changing regulatory environment, accelerating technological advancements and expectations of a new global, e-enabled workforce, coupled with financial pressures, are forcing a constant adaptation of talent strategies.

THE INCREASING BURDEN OF REGULATION AND COMPLIANCE

In today's world, regulation is a major cost and time burden for many organisations, and compliance is an issue that continues to grow in scale, reach and importance. In a recent study, three-quarters of senior executives around the globe cited regulation as the leading cause of complexity in their businesses, with four in 10 pointing to it as the single greatest cause.[5]

Exhibit 2: Identifying and ranking the causes of complexity



Keeping pace with increasing regulation and compliance has large implications for organisations that are required to keep their finance professionals abreast of developments. As Jim Robertson, VP, tax, Eastern hemisphere and global tax practices, Shell, points out, there are also industry-specific protocols to consider. 'All our employees must be trained in export controls and we have to be able to produce evidence that we have done the training to the regulators,' he says.

> At trainee level, there is a demand for digital learning.
>
> GREG OWENS, DIRECTOR OF TECHNICAL TRAINING AND STUDENT QUALIFICATION, BDO

THE DIGITAL NATIVE GENERATION

In the past, organisations offered access to technologies that in size, scale and capability outstripped what their staff could use at home. Now, organisations are playing catch-up with employees and customers who, outside of work, are communicating via an ever growing number of platforms and mobile devices.

For this generation of digital natives (a term coined by Marc Prensky in his seminal 2001 article, *Digital Natives, Digital Immigrants*), technology is an integral part of everyday life. These new professionals have grown up on a diet of internet, smartphones and online learning, and are used to the increased accessibility and flexibility that technology brings to their personal lives.

Digital natives not only prefer, but expect, to conduct the majority of their work via technology. As Greg Owens, director of technical training and student qualification at BDO puts it: 'At trainee level, there is a demand for digital learning.'

5. *Confronting Complexity: How Business Globally is Taking on the Challenges and Opportunities*, KPMG, February 2011.

GLOBALISATION AND THE NEED FOR GLOBAL CONSISTENCY

The growth in size and stature of emerging markets on the world stage is driving long-term talent strategies in international organisations that are looking to grow their global footprint in the face of continued signs of deterioration in the eurozone and US.

Pollard at PwC makes the point best when he says: 'One of the key drivers for us is growth in emerging markets, not just geographic, but also types of business. We currently have 170,000 people in our organisation and we can see that growing to a quarter of a million and more over the next five years. Given general levels of attrition, keeping up this volume of professionals is a huge, huge effort.'

As organisations expand into new geographies and service lines, the need for global consistency in their learning and assessment approaches is reinforced. As Owens of BDO says: 'Our key people objectives are focused: servicing our clients and providing excellent client service in the markets where our firm will be active, both now and in the future. We are thinking internationally – as one network of member firms – so that we have more coordination over our curriculum and how it fits together internationally.' Pollard echoes this: 'Audit is increasingly a global business and needs an international framework both for accounting standards and for auditing standards.'

The global nature of their business represents both a challenge and an opportunity. Global consistency, Pollard says, is incredibly important – be it for technical and compliance training or soft skills: 'Everybody, no matter where in the world, has to have access to the same material to train from both an accounting and an auditing point of view.' This consistency ensures service teams have the same level of knowledge and skills to deliver globally consistent client service.

A DRIVE TOWARDS GREATER PRODUCTIVITY AND EFFICIENCY IN THE WORKPLACE

The financial crisis has spurred a focus on efficiency; the pressure is amplified by customers and clients who are demanding more for less. Employers can no longer afford to have people absent for long periods of time to study. Laura Overton, managing director at Towards Maturity, an organisation that works with employers to implement and benchmark e-learning capability, says: 'This raises questions not only about how employees learn on the job in a formal programme, but what informal learning opportunities employees have access to.'

> Learning around work – rather than working around learning – means that finance professionals are more likely to be up to date on the latest developments in financial regulation and hence better prepared to service their clients.

From the employee's perspective, this means that learning and development can be much better integrated into their working day, from the moment they join an organisation. Equally, the benefit to the employer is in being able to attract and retain the right talent. PwC's Pollard sees the integration of work and learning as a benefit for both employer and employee: 'We concentrate on giving individuals the skills, ability and range of experience that are going both to attract them and keep them with us for as long as possible. The overall imperatives are to keep individuals engaged, motivated, mobile and well skilled.'

Technology as the bedrock of learning and work

Technology-enabled learning has long been used as a means to keep up with regulation through the use of online compliance training and testing. A recent study shows that 93% of finance organisations say they are using technology to address industry-specific regulatory requirements, compared with 51% of companies overall.[6]

However, greater sophistication in learning and assessment technologies has enabled organisations to move beyond the traditional compliance 'home' for e-learning. How? By using technology to (i) deliver high-level skills, and (ii) apply knowledge.

25% of organisations agree that e-learning is the most important development in learning and talent development in recent years.

CIPD, INTERNATIONAL LEARNING AND TALENT DEVELOPMENT SURVEY 2011

TECHNOLOGY'S ROLE IN HIGHER-LEVEL SKILLS

In the past there has been a commonly held perception that technology was most suited to delivering the technical aspects of learning such as compliance training. Because organisations have been increasingly delivering their accounting and audit training to international accounting and audit standards, technology's de facto role has been to facilitate the delivery and assessment of technical knowledge.

That outmoded image of technology's capacity is changing fast. More firms are exploring how to use technology to deliver soft skills such as teamworking, problem solving and client service skills. As Pollard says: 'At PwC we have had some really good experiences using technology for diversity training and coaching support. A lot of the support we give to our people managers, who are our internal coaches, is actually technology-driven rather than using classroom training.'

Exhibit 3 confirms this increasing use of technology within areas previously considered the preserve of face-to-face, classroom-based formats, such as teamworking or leadership and management training. Although areas such as industry compliance and induction training are still the most popular for technology-based training, approximately 45% of organisations surveyed are encompassing technology within their leadership and management training. The gap between the possibilities and the reality continues to narrow.

Towards Maturity's Overton sees this trend regularly playing out in practice in her work and is optimistic that areas of currently low penetration for learning technologies will not stay that way for long: 'I would go as far as to say there are no skills areas that are out of technological bounds any more when you have the right blend of methods and media.'

Exhibit 3: Use of technology grows for leadership and collaborative skills

Source: Towards Maturity, op. cit.

6. *Accelerating Performance: Towards Maturity 2010–11 Benchmark, Full Report,* Towards Maturity, 2010.

TECHNOLOGY'S ROLE IN KNOWLEDGE APPLICATION

While the panellists did not draw a distinction between learning and assessment, they did discuss the need to address both knowledge acquisition and knowledge application within their organisations. The panellists acknowledge that application is harder to teach irrespective of the learning medium. Owens explains: 'Over recent years the professional has witnessed a tendency towards breadth rather than depth of knowledge. There has to be a way professionals can get that initial knowledge and then apply it to a real client experience. We need to support that learning process via training, online media and ongoing support. It's how you make it all real that's the hardest bit.'

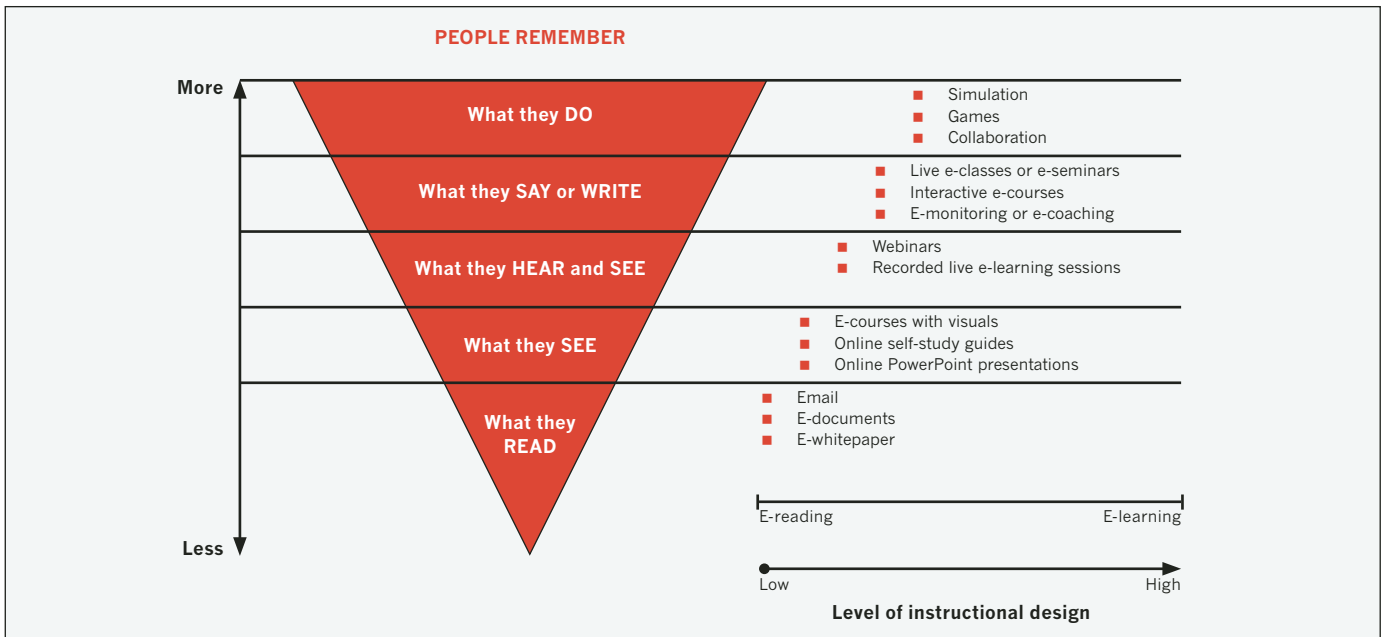
The view that technology has no part in knowledge application is changing. Organisations are now making their learning and assessment real and applicable to client scenarios. The most important shift in mindset has been the recognition that learning can no longer be standalone and that learning programmes should be geared to and integrated with immediate, real-life application whenever possible.

Exhibit 4 illustrates in more detail the premise on which learning programmes should be developed to engender more effective application. The online learning continuum grades the effectiveness of learning approaches, with 'doing' the most effective and 'reading' the least effective means by which to recall knowledge.

This educational theory translates very straightforwardly to a number of practical examples. For example, the most sophisticated e-learning approaches offer simulation, gamification and collaboration which aim to mirror as closely as possible in the learning environment what students would do in a real-life situation. One example of this is The CAVE, a purpose-built, technology-enabled study initiative at Keele University's School of Pharmacy (see Case Study 1).

These examples – simulation, gamification and collaboration – are among the most effective because they align learning and assessment with how professionals are expected to carry out their work. These learning methods facilitate application as well as acquisition of knowledge because, as learners take on an active role in learning, assessment becomes much more embedded in the learning processes and feedback can be given in real time.

Exhibit 4: The online learning continuum



Source: Nick van Dam, 'Trends in Learning: Formeel, Informeel en Sociaal Learning', presentation, April 2010.

BLENDED LEARNING: THE 70/20/10 APPROACH IN PRACTICE

The panellists agree that firms should bring together the different elements featured in the online learning continuum (see Exhibit 4) to provide their learners with a sophisticated, blended learning programme. At PwC, a blended learning approach combines conventional e-learning modules with on-the-job and classroom training. 'These three techniques,' says Pollard, 'are designed to be complementary. If you immediately follow e-learning with practical, on-the-job experience, supplemented by classroom learning involving interaction with a tutor and peers, it can help to reinforce the learning.'

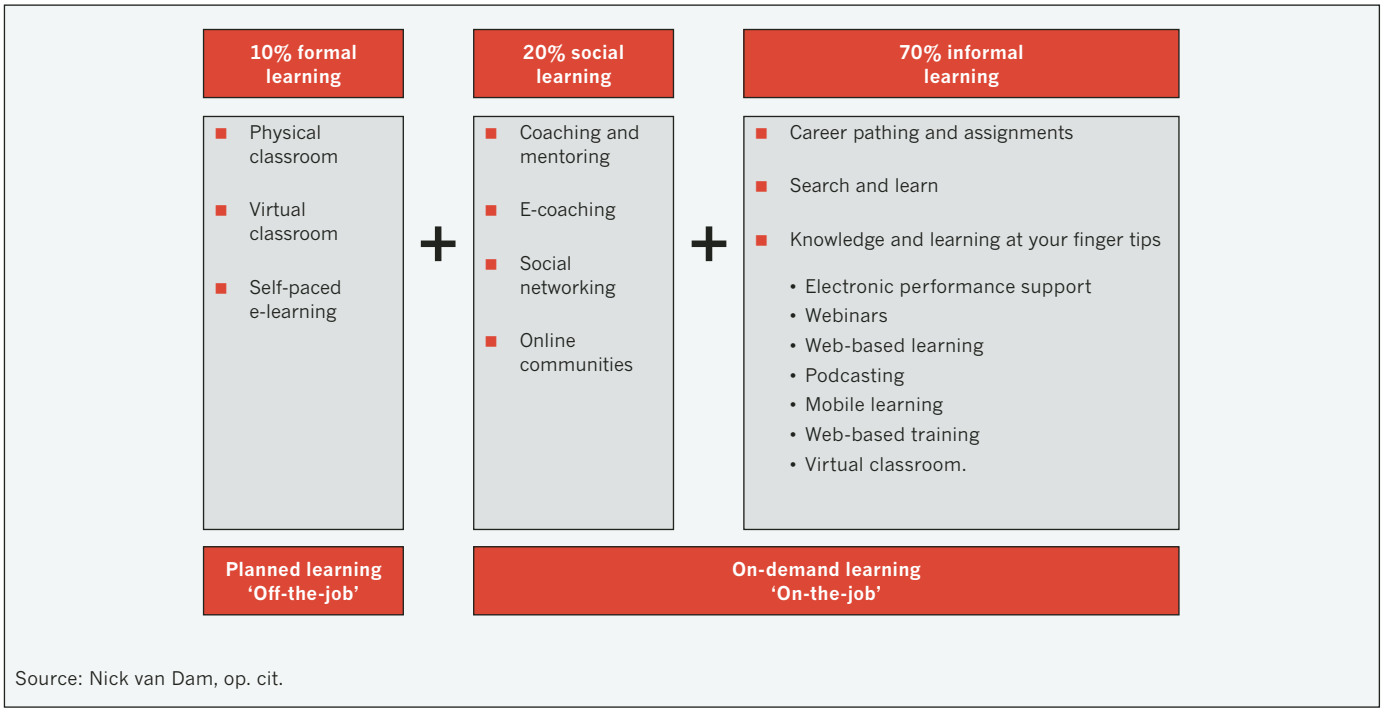
The notion that different learning methodologies help to reinforce each other is underpinned by a concept commonly referred to as the 70/20/10 approach. As Exhibit 5 illustrates, in this model the majority of learning occurs on demand and on the job with only 10% of learning taking place off the job and at a scheduled time.

The approach recognises that today's digital natives are not as linear as students once were. As Damian Day, head of education and quality assurance at the General Pharmaceutical Council, says: 'They don't start at A and end up at Z; they learn in a much less structured way.'

Whereas previously time spent in formal learning was used for compliance-type training, and was thus the natural place for technology-enhanced learning to sit, technology is now increasingly finding a place within social and informal learning. Devices like smartphones and tablet computers along with online tools such as wikis, blogs and social networks are driving the charge towards technology's enhanced role within informal learning.

Pollard explains how multiple learning mechanisms are used for skill building at PwC: 'We have a programme which starts with a video message setting an employee a task. This is followed by two months in a virtual classroom, then research projects to do on their own. For this, they receive some formal e-learning, coaching via social networking platforms and a face-to-face simulated interview.'

Exhibit 5: Creating a programme for non-linear learning



Source: Nick van Dam, op. cit.

LEARNING TECHNOLOGIES IN PRACTICE

Through these various blended learning approaches, organisations and the professionals they employ are beginning to think about technology in new ways. Not only is technology a knowledge delivery mechanism, it also plays a key role in blurring the boundaries between learning and work. The panellists describe how online learning hubs and portals, interactive masterclasses, and video formats have been doing this within their organisations.

(i) Online learning hubs and portals

An integrated online learning hub or portal is a feature of most blue-chip organisations' intranet resources. As Robertson says: 'Everyone at Shell has access to our e-learning system, which contains hundreds of generic e-learning modules, such as presentation skills, diversity, influencing skills and so on. These courses are popular and very accessible to staff.'

Martin Taylor, CEO at learning provider BPP, describes its offering for trainee accountants: 'We provide an online study home, somewhere that students can log onto which contains all the information they need about how to go about the studying process, such as lectures, quizzes and podcasts.' Bringing resources together in this way is one of the most effective ways to encourage professionals to utilise the technology available to them. This approach has the advantages of consistency and ease of use, and can also help with firewall difficulties. It also matches young professionals' expectations for a technology they are used to using at training organisations, schools and universities.

(ii) Interactive masterclasses

Interactive masterclasses are one example of how technology is being used to roll out learning programmes on a globally consistent basis. At Standard Chartered Bank, learning designer May Chan explains, regular online masterclasses are held to skill up large numbers of people at any given time. 'We organise webinars or masterclasses of up to an hour and a half,' she says. 'Masterclasses tend to be delivered by technical experts from London, Singapore or India, depending on the subject matter.'

These online masterclasses allow professionals to tap into insights from leading experts by asking them questions and receiving answers in real-time. 'The person leading the webinar can interact with students to share news of forthcoming regulation and other hot business topics,' says Chan. The sessions can also be recorded so that individuals unable to log on and follow the conversation live can access the content at a time convenient to them.

(iii) Video formats

The familiarity of video makes this format generation-neutral. The rise of video hosting websites such as YouTube means that professionals are well acquainted with accessing video content online. 'At the more senior levels,' says Owens, 'take-up of online learning is variable, although we've found that offering our online videos in a YouTube format has proved successful – the number of people who will click a play button on a video frame is much higher than those who will click on a coded link.'

CASE STUDY 1

UNDERSTANDING DRUG EFFECTIVENESS IN 'THE CAVE'

Key facts

- The CAVE is a purpose-built, three-dimensional learning space, housed at Keele University's School of Pharmacy.
- It offers students a state-of-the-art, simulated visual learning experience aimed at improving their understanding of the action of different drugs within the human body.
- Students stand inside a virtual body to watch the action of a drug and how its molecules attach to receptors inside the body.
- Students can then manipulate the receptors to see whether or not the molecules will fit and if the drugs will work.

Key benefits

- Students can see first-hand and close-up the action of molecules inside the body which would otherwise not be possible.
- There is no need to dissect a physical body, because students can practise removing skin, sinews and muscle on a virtual human.
- Students learn by doing because they are active participants in the learning process, aiding their understanding.

The verdict

The CAVE is among the most innovative examples in medicine of where technology is being used to improve access to learning and assessment.

It is very good at simulating what pharmacy students would be required to do in a real-life scenario.

However, a large amount of money has to be spent on a room which can be used only with specialist software and can accommodate only one student at a time.

Commentary

What we currently have is amazing, but it is still only a halfway house and we are still compromised by space. Once The CAVE can be made small enough to be on an iPad and everybody can download it, then students can use it whenever they want. Otherwise, they physically have to be in the room, which is a limiting factor.

DAMIAN DAY, HEAD OF EDUCATION AND QUALITY ASSURANCE, THE GENERAL PHARMACEUTICAL COUNCIL.

CASE STUDY 2

COLLABORATIVE LEARNING ON PwC's GENESIS PARK

Key facts

- Genesis Park is an intensive training programme comprising a residential course and an online resource that uses a proprietary learning platform specifically developed for collaborative learning.
- Genesis Park is run three times a year, with a cohort of approximately 50 students in a different world city each time.
- Participants are senior managers at PwC, typically in their late 20s or early 30s. They are put forward to take part by a sponsoring partner in their PwC office.
- Participants are set pre-onsite training which is powered through an online social learning programme. This allows people to talk to each other to share what they are learning.

Key benefits

- Participants can learn together in one physical and virtual site and access all their materials through a technological platform.
- They have the opportunity to interact using social networking before the residential course takes place, so they get to know each other before they actually meet for the first time.

The verdict

Genesis Park is a good example of how to engage young professionals in the professional development process. Why? Because the participants are using numerous social networking sites, typically Facebook or LinkedIn to communicate with their social and business network respectively.

However, firms need to have controls in place to ensure that workplace-based social networks are used responsibly by professionals and do not undermine the wider project aims.

Commentary

One of the exciting things we have done with Genesis Park is to use technology in a slightly different way to introduce collaborative learning. Before the class come together they are set tasks to do together on the social platform so that they work in a collaborative environment before they arrive at the residential site. This builds a high level of trust among the group.

RICHARD POLLARD, GLOBAL DEVELOPMENT LEADER, PwC

The benefits of e-learning

Technological advances in learning and development have created a new environment that has at its core radically different learning and assessment methods from the paper-based or classroom approaches that were the norm less than a generation ago.

To explore the areas of greatest advantage of this new learning environment, we asked the panellists to rate, on a scale of one to five, the benefits of technology-enhanced learning versus physical, classroom and paper-based learning. They considered seven factors: innovation, rigour, flexibility, fitness for purpose, sophistication, quality, and value for money.

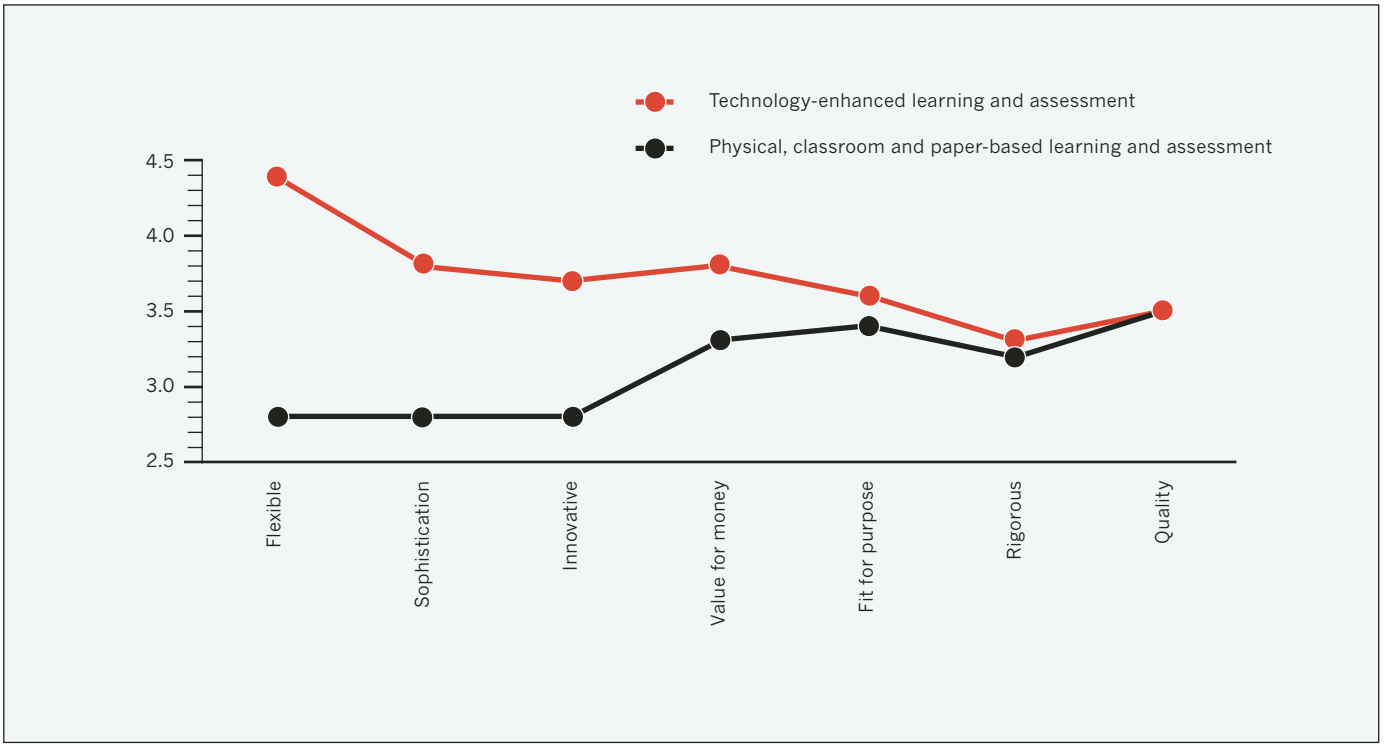
With blended learning so firmly entrenched in their organisations, the panellists put a lot of thought into understanding the distinctions, both in theory and in practice between the two learning styles. Exhibit 6 depicts the panellists' aggregate responses. A score of five indicates a strong association with the benefit, a score of one a weaker association.

The aggregated responses reveal two notable conclusions:

1. There is no perceived decrease in quality when technology-enhanced learning and assessment is compared with physical, classroom and paper-based learning and assessment.

2. The perceived gap between the two learning styles was most significant when discussing flexibility, sophistication and innovation. Significantly, when discussing the benefits of e-learning approaches, not one panellist mentioned cost reduction as the driver for introducing and using more technology in the workplace.

Exhibit 6: E-learning and e-assessment rank more highly for flexibility, sophistication and innovation



NO COMPROMISE ON QUALITY

Any suspicions that professional standards are being compromised by insufficiently robust or rigorous online learning and assessment programmes are not shared by the panellists. For BPP's Taylor, e-learning was seen as more challenging for learners and therefore could deliver a professional who is better placed to enter the workplace.

> E-learning can be incredibly demanding, because learners are doing a lot of the learning and the research themselves, which is incredibly beneficial to deep understanding.
>
> MARTIN TAYLOR, CEO, BPP BUSINESS SCHOOLS

FLEXIBILITY – LOCATION, TIMING, IMPLEMENTATION

There is a strong consensus among the panellists that flexibility is the greatest benefit of technology-enabled learning and assessment. Although the panellists interpret flexibility in several different ways, one of the key benefits brought up is that students are not limited to a fixed exam sitting. As Kristin Watson, director, national exam training team at Ernst & Young says: 'For those subjects where students are doing some form of blended or distance learning, they are not tied to a particular course or a particular date. This allows businesses to give their students study leave on a convenient date. It doesn't tend to reduce the requirements for study leave; it's more about being able to choose when time spent out of the office will be.'

This additional flexibility also reduces the opportunity cost of students taking examinations for organisations. Martin Ripley, CEO of World Class Arena, a consultancy specialising in innovative teaching and assessment, makes this point: 'There is less travel time because there are more convenient venues, and the wait time for results is shorter, which enables employers to make faster decisions about staff responsibilities and future training.' As a result of this faster decision-making, employers can better manage the training and development of staff in accordance with their own business cycles.

The panellists also comment that technology enables professionals to take a flexible just-in-time approach to learning that meets their on-the-spot needs. Pollard puts himself in the shoes of the e-professional at work: 'On an average day, there might be facts I need to know and skills or techniques of which I need a reminder. I want that now. I don't want it three months ago when I was at a training centre, and I can't remember what I was learning. I certainly don't want it in six months' time when I've been booked to go on a classroom session.' The best way to meet that need is to access training instantly through a computer, or even a mobile device. If it is the latter, then content can be accessed remotely, anywhere, any time.

SOPHISTICATION – FULFILLING POTENTIAL AT THE RIGHT PACE

Online learning and assessment technologies provide more sophisticated ways for learners to interact with learning and development content. Professionals, for example, can fast-forward to more demanding modules, or pinpoint and address areas of weakness much quicker. This is particularly true of online programmes that have built-in assessment options.

In the most sophisticated examples of online assessment, the level of questioning can be determined by participants' responses to previous exercises. Pollard sees this level of sophistication as a major differentiator for technology-enhanced learning: 'If you do two or three questions and you are clearly getting them right, then you can automatically move on somewhere else; but if you are getting some of them wrong, then you can repeat a similar theme. You can use the questions themselves to teach yourself what it is you are getting wrong, and that is harder to do on paper.'

INNOVATION – MOBILE DEVICES AND GAME TECHNOLOGY

The pace of technological change in the past generation has been immense, and the implications for learning technologies are equally significant. Technological innovations such as mobile devices, tablet computers and simulation and game technology are capturing the imagination of learning experts. Overton describes the extent of innovation: 'Five years ago I could never have predicted the iPad and the influence it would have. I couldn't have foreseen the fact that almost everyone is walking around with the internet in their pocket, and what that would mean.'

MEASURING VALUE FOR MONEY AND RETURN ON INVESTMENT

In a recent study of learning and development professionals, almost two-thirds (64%) agree that e-learning represents good value for money.[7] Although it can be expensive to roll out technology on a globally consistent basis, respondents believe the benefits offset the cost. 'The main difference is less about cost and more about where the investment lies,' says Day. 'If you invest properly in e-learning it works very well, but a lot of the investment is front-loaded.' The cost implications of writing the software and training materials up-front contrasts with the in-class model, where training is delivered by someone every week with smaller, but ongoing, overheads. 'E-learning shifts the financial model,' Day concludes.

There are several technologies and software solutions available in the market today which allow organisations to create their own effective e-learning. This includes open source software which enables the rapid build and deployment of low-cost training solutions.

When executed in the right way, learning technologies can make considerable contributions to qualification rate, time to competency, and perhaps most significantly, to a firm's bottom line. Towards Maturity's *Accelerating Performance Benchmark Study 2010/11* details some compelling statistics that illustrate how leading firms have been able to measure the return on investment they have seen from investing in online learning technologies. The following conservative estimates show that:

- organisations that have implemented learning technologies report an average cost saving of 18%
- those organisations using more mature learning technologies were reporting a 20% improvement in time to competency
- the introduction of technology-enhanced learning has led to an 8% increase in qualifications gained by staff
- the introduction of technology-enhanced learning has led to an 8% improvement in staff satisfaction and engagement with learning, and a 12% improvement in proficiency and demonstrating compliance.

Although equally as important, one of the less tangible benefits cited by the panel was general improvement to customer/client service. This has been the case at BDO as Owens explains: 'The prime aim for us is providing exceptional client service, which is quite difficult to measure. Our projects are part of ongoing relationships. As the factors that get brought into a client situation change, our professionals have to respond to that and proactively think about what they need to do.'

7. International Learning and Talent Development Survey, CIPD, 2011.

Success factors for implementation

The panellists talk very openly about the technological, cultural and practical challenges they have faced and overcome during the last 10 years when implementing learning technologies within their organisations. Collectively, their wealth of experience has identified four key success factors that all organisations should consider in order to realise the full potential of learning technologies.

1. WORK EFFECTIVELY WITH LINE MANAGERS

Research by Towards Maturity has found that line managers are a highly influential group and play a crucial role in helping to embed online learning into the corporate culture. The panellists advise learning officers to enlist the support and buy-in of line managers so that they actively encourage new ways of learning in the organisation.

However, working with line managers is not a one-way street. Support needs to be reciprocal, so that line managers receive help in managing and improving team performance through online learning. At Shell, this is achieved by having a group of eight senior leaders who set learning policy. Robertson says: 'We have a learning team with two people dedicated to finance. They are responsible for managing the learning budget and making sure we get value for money in accordance with the objectives set by our Finance Skills Group, which decides what type of learning our 12,000 finance staff need and how it should be delivered.'

2. OFFER THE RIGHT SUPPORT AND GUIDANCE TO LEARNERS

A common misconception among learning providers and employers is that learners are not sufficiently proactive to manage their own study needs. However, Overton warns that it is important not to generalise: 'We find that employees are often much more open than others believe them to be.'

One of the inherent differences with online learning approaches is that they compel students to take responsibility for their own learning. Pollard points out that with classroom learning, if someone didn't do well in an exam they invariably blamed the tutor. 'Now, if an individual works by themselves, takes a test and doesn't do well, they have only themselves to blame. They get that very, very quickly and it's the biggest reason why our exam pass rates have gone up.' Provided that online learning is supplemented in the right way with structured support and tracking as part of a blended approach, students can feel much more empowered to address their own learning needs.

3. DON'T OVERLOAD COMPLIANCE TRAINING

Given the extensive use of online learning formats for compliance training, there is a potential risk that professionals could be put off technology-enhanced learning if their only experience has revolved around compliance programmes translated poorly online.

Overton sees this as a key consideration, particularly for those in finance: 'Although compliance is crucial in the financial services sector, when people have compliance training as their only experience of technology-enhanced learning it can switch them off completely. Classroom trainers tend to put compliance training online because it is boring to teach. However, there is a danger that if people have had a bad experience in compliance training, they won't be open to a better experience in other areas.'

One solution is to ensure that compliance training is integrated into a broader online training and assessment programme. We touch on practical recommendations in the concluding chapter of the report.

4. FACTOR IN REGIONAL PREFERENCES

With global consistency identified as a key driver for pursuing technology-enhanced learning and assessment, organisations need to be sensitive to regional differences and preferences. Chan, for example, makes the point that, because of cultural differences, 'people in Asia will not ask so many questions, and they may prefer to type in the questions rather than ask audio questions on a live webinar or masterclass, so it is important to offer various communication channel options to staff'.

Pollard raises the issue of global accessibility. 'It is about making sure the implementation plan that you have is the correct one,' he says. 'For instance, we provide an online learning programme in countries in Africa by burning it onto a CD. Or, instead of accessing a global service, we would have them access a service specifically in their territory.' In larger territories with vast rural populations it is not always possible to bring people together for face-to-face, classroom learning or professional development conferences so online learning is the natural solution.

> 1 in 4 organisations are now allocating over 30% of their training budget to e-learning. This has increased from 1 in 10 organisations in 2008.
>
> TOWARDS MATURITY, ACCELERATING PERFORMANCE: BENCHMARK STUDY 2010/2011

> It is about making sure the implementation plan that you have is the correct one.
>
> RICHARD POLLARD, GLOBAL DEVELOPMENT LEADER, PwC

What does the future look like for the e-professional?

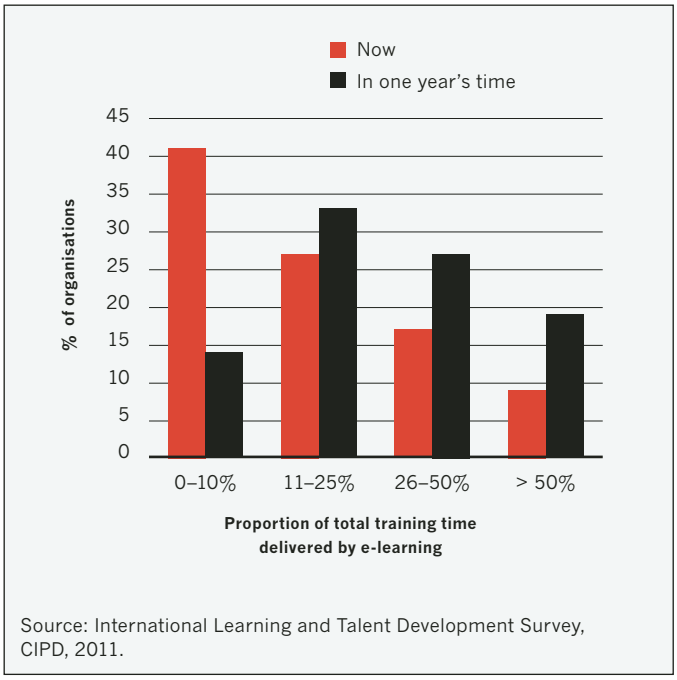
Learning technologies are already playing a vital role in the delivery of learning and assessment for finance professionals, being at the forefront of the panellists' minds when they consider how to meet their future talent needs. This trend is heading in one direction only: the first half of this decade is therefore likely to be a watershed moment when the relevance, penetration and sophistication of learning technology grow exponentially.

Although usage levels are already significant, 2012 could be the year when a widespread shift in favour of learning technology takes place. Exhibit 7 shows this anticipated shift in action. The number of organisations that deliver at least 50% of their training time by e-learning is set to more than double over the course of a year. Almost half (46%) of organisations will have employees spending at least 25% of their training time online. This is up from just over a quarter (26%) in 2011. The evidence of shifting momentum is even greater in emerging markets; in India, for example, a majority of organisations (52%) will have trainees spending at least 25% of their training time online.

Learning technologies are gaining significant traction among finance professionals, and online training time will continue to rise. As Day says: 'Once people have learned in an e-environment and realised that it is not a scary thing, they will do it again. This lays the ground for flexible common professional development to a much greater extent than we have yet seen.' Comfort levels with new technology have rapidly increased, and this is helping to accelerate the shift to far greater penetration of technology in learning and assessment.

That said, the panellists are keen to point out that technology will always form part of a blended learning approach, and that there are certain elements of learning and assessment that are more straightforward to translate into technology-enabled formats than others. Owens recognises that the ability to discuss issues in confidence with peers is important for professionals: 'Scepticism and judgment will always require an element of people-to-people interaction on a workshop or course.' Although scepticism and judgment are difficult to teach in any media, whether in the classroom or online, as online tools such as virtual classrooms, webinars and Skype become more sophisticated, there may be a greater role for technology in delivering these skills in the future.

Exhibit 7: Time spent learning online is set to increase



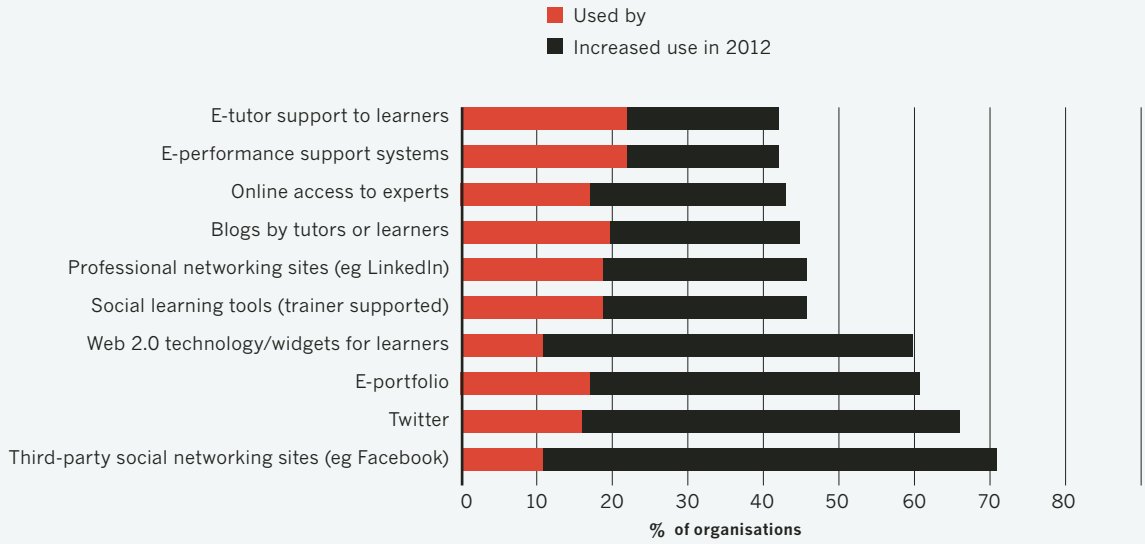
Source: International Learning and Talent Development Survey, CIPD, 2011.

THE FASTEST AREAS OF GROWTH

Within learning and assessment, technology is becoming a real game-changer. The panellists agree that in the future they will be looking to technology to replicate real-life scenarios during learning and assessment and to facilitate more informal dialogue between professionals and their peers. The greatest areas for growth are expected to be in the use of social media and new technological tools that help to embed learning into workflow such as specially designed web widgets and mobile apps.

Exhibit 8 reveals that the panellists' views are shared by the wider learning and development community. The number of organisations using third-party social networking sites such as Facebook as part of their learning and development offering is anticipated to grow from one in 10 currently to just over seven in 10 in 12 months' time. Similarly the use of Twitter is set to rise four-fold during the course of 2012.

Exhibit 8 The fastest future growth areas



Source: Towards Maturity op. cit.

Given what may be possible with technology over the next five years, the growth areas that the panellists are most excited about are (i) mobile devices, (ii) social networking and (iii) gamification.

(i) Mobile devices

Mobile devices such as the Blackberry, iPhone and tablet computers are revolutionising the way in which learning and development content can be accessed on the go. In some learning institutions, students are beginning to receive iPads at the beginning of their programmes that have the complete curriculum preloaded. The benefit of this, according to Taylor, is immense: 'Students will be able to learn and study wherever they have that device with them. They won't even need internet access to do their study.'

Increasing accessibility and flexibility in this way through the future roll-out of more sophisticated mobile devices is likely to reduce the time to compliance enormously. Pollard agrees that mobile devices are 'transformational' and will bring 'huge opportunities and advantages': 'Imagine onboarding on your first day and using a smartphone which could be preloaded with information about the office you were joining, the area you were working in, and who your key contacts would be.' The possibilities are seemingly endless.

(ii) Social networking

Many firms are considering introducing social media in some form into their learning programmes in the near future. One of the key reasons for this is the ability of social networks to create a level playing field for learning, in which the traditional hierarchy of tutor and student breaks down. Social networks facilitate online peer-to-peer learning and students can access the opinions of experts very easily through blogs, chatrooms, email and video. Robertson gives an example: 'If you are in well engineering at Shell, there will be a global expert in how to drill in particular geology such as sand and that person will receive lots of requests for help by email, instant messaging and blog facilities. It is a form of e-learning, but it is very task-specific. I expect we will see a lot more of that in the future.'

Given the widespread use of social networking sites such as Twitter and Facebook for non-learning purposes, it is the natural next step for firms to try to harness their success for professional learning and development purposes. 'Over 50% of organisations are considering the introduction of social media in some form into their learning programmes' says Overton. But she adds that employers need to give thought to the best way of doing this so as to really encourage active engagement: 'The main priority is to avoid falling into the trap of setting up a community where nobody joins because of insufficient offerings or lack of relevance.' Her recommendation is clear: 'Content and context are key,' she says.

(iii) Gamification

Encouraged by developments in the gaming industry, the experts say they will be increasingly exploring ways in which serious game technology can produce simulation capabilities for finance professionals. Taylor says: 'Gaming is starting to gain real traction in the learning environment. Three-dimensional, even four-dimensional, capabilities enable you to introduce different scenarios and throw in surprises to replicate the real world more closely.'

The panellists are not alone in their enthusiasm. Gamification is being hailed by some as the new frontier in web and mobile: a recent report released by IT research firm Gartner predicts that by 2015 more than 50% of organisations will be gamifying their innovation processes.[8] By 2014, a gamified service for consumer goods marketing and customer retention will become as important as Facebook, eBay or Amazon, the report concludes, and more than 70% of Global 2000 organisations will have at least one gamified application.

Firms interested in the use of game technology are thinking big and looking beyond their own sectors for best practice that finance professionals can emulate. Pollard cites the game technology used to by the US army to train its officers for deployment in combat zones as an inspirational example of where gaming technology can help to align training with real-life scenarios.

Taken together, the panellists painted a picture of how these fast-developing learning technologies would impact the way professionals work and interact with each other in the not too distant future. They saw learning becoming further embedded and entwined in corporate culture, with finance professionals taking ownership of their learning in a way that would make them better placed to enter the workplace.

8. Gartner, May 2011.

'CORPORATE CULTURE WILL EMBRACE A STRONGER LEARNING DIMENSION'

As the way people learn becomes more aligned with the way they live and work, this provides an opportunity for learning and assessment to become more embedded within the corporate culture. Chan reflects on how Standard Chartered is striving for this embedded learning culture: 'We have a vision for learning in which 70% is gained on-the-job through projects, secondments and stretch assignments, 20% is provided through learning from others such as mentoring and job shadowing, and 10% constitutes formal learning methods and training. E-learning has become part of our formal learning culture and it starts from day one, when new joiners have to complete a fixed set of mandatory e-learning modules within a period of time. These include various regulatory and compliance framework requirements, our code of conduct as well as understanding operational and reputational risks'. Standard Chartered's Finance learning portal contains their masterclass calendar, recordings of all previous masterclasses and a range of self-service materials. 'With these various learning support and tools, we ensure our professionals are regularly updated and meet their 'on-demand learning' as well' says Chan.

The aim for our panellists is to foster a culture where learning does not happen in isolation. 'People shouldn't think, "It's training time, I need to go and do some training,"' says Pollard. 'We want training to be something that happens in the course of our people's day-to-day jobs and that they know where they can find the support to enable them to do that. Whatever the technology, that attitude towards learning is where we are headed.'

'E-PROFESSIONALS HAVE GREATER EMPOWERMENT OVER THEIR OWN LEARNING'

According to the panellists, the popularity of social networking and its anticipated rise in usage in a professional capacity will give learners greater access to learning and development material than ever before. This will mean that learners will have more choice, and the 70% informal element of training and development recommended by the 70/20/10 approach will take on greater significance.

Overton argues that this shift towards learner empowerment represents an opportunity for organisations to facilitate greater information sharing. 'Organisations should be looking to introduce platforms which help people to share knowledge with each other more easily and allow people to rate what each other is sharing,' she says. As learners have more choice about the direction of their own learning, they will have to become more discriminating about the wealth of information that they have access to, and facilitating information sharing through systems like the one described by Overton will allow learners to do that.

'LEARNING AND ASSESSMENT TECHNOLOGIES WILL POSITION FINANCE PROFESSIONALS BETTER TO ENTER THE WORKPLACE'

The panel suggested that a consequence of providing learners with greater empowerment over their own learning and development is that they will be better positioned to enter the workplace. In this case, learning and assessment becomes more fit for purpose as learners seek out information which directly addresses their own learning needs. For Owens, this change will 'drive both the content and the quality and accessibility' of learning materials in the future.

Greater access to information could therefore lead professionals in two directions. Either they will be exposed to a wider range of information than ever before and so seek to obtain a more holistic skill set, or they will gain a much deeper knowledge of their own area of business. In Watson's view, the latter development could bring many advantages: 'Technology-enhanced learning will lead to greater specialisation because it enables people to access content previously unavailable to them.'

> E-learning has become part of our formal learning culture and it starts from day one.
>
> MAY CHAN, LEARNING DESIGNER, STANDARD CHARTERED BANK

Practical recommendations for the future

When asked whether learning technologies would be the norm in 10 years' time, the panellists were unanimous in saying that learning technologies are very much the norm now. They did add, however, that these technologies would undoubtedly become more sophisticated and adept at meeting the needs of professionals and organisations over the next 10 years.

Given that the pace of change in learning technologies shows no signs of abating, we conclude with a series of practical recommendations, suggested by the panellists, to ensure that any organisation can make the most of the benefits that can be harnessed from learning technologies in the future.

1. TECHNOLOGY IS A MEANS TO AN END, NOT AN END IN ITSELF

Flashy technology can blind organisations into thinking that it is technology alone that is driving change in learning and assessment. Technology is a facilitator for change rather than a silver bullet.

Martin Taylor: 'The reality is, if your technology and your strategy don't fit together as an educational experience, no learning programme is going to work for the learner.'

Laura Overton: 'Some organisations think that social media or mobile devices are going to solve their problems. But learning strategy should be driven by what the business needs, not what the technology can provide.'

> The reality is, if your technology and your strategy don't fit together as an educational experience, no learning programme is going to work for the learner.
>
> MARTIN TAYLOR, CEO, BPP BUSINESS SCHOOLS

2. LEARNING TECHNOLOGIES SHOULD BE PART OF A WIDER, INTEGRATED APPROACH TO LEARNING AND ASSESSMENT

When putting e-learning content together it is important to think about how it will fit into a blended programme of learning. Students require both formal and informal learning options.

Greg Owens: 'The risk is you start by asking what is it you want people to know, rather than, what is it you want people to be able to do. The "know" bit is important, but the application element of the learning is by far the most important.'

Martin Taylor: 'When putting programmes together it is important the individual perceives there will be additional value from online content. This comes down to having a structure and the right guidance: an underlying pedagogy.'

3. INVEST SUFFICIENT TIME AND RESOURCE ON PLANNING AND DESIGN

Converting existing materials into online learning requires a new approach. There is a danger that, if organisations roll out learning technologies in the wrong way they may turn employees off learning technologies in the future.

Jim Robertson: 'You have to invest time in producing a quality product, otherwise nobody will use it.'

Greg Owens: 'You can't just apply your normal PowerPoint skills that once worked for you in a classroom. You really have to think about instructional design at the core of your e-learning solutions.'

> You have to invest time in producing a quality product, otherwise nobody will use it.
>
> JIM ROBERTSON, VP, TAX, EASTERN HEMISPHERE, AND GLOBAL TAX PRACTICES, SHELL

4. TECHNOLOGY MUST BE USER-FRIENDLY AND INTUITIVE TO USE

To get engagement at any level, technology has to be simple and attractive to use. Capitalise on the technologies that people are already using in a non-learning context.

Laura Overton: 'You need to think about where people currently are in terms of the technology and social media they are using, rather than give them something else to be embedded where they're already active.'

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