What's new in online learning?

A report by think tank The Company of Thought focuses on the digital industry, reveals **Bob Little**

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The Company of Thought (TCoT) is a new think tank made up of digital landscape specialists from around the world. They are briefing their clients in the global online learning technologies industry on the latest trends. According to their latest report, what is currently interesting, new and/or significant in the corporate online learning technologies industry includes:

•Innovation/ leading edge e-learning
•Developments in learning management systems (LMSs)
•Augmented reality, virtual reality and other potentially immersive learning tools
•Gamification
•Personalised e-learning and big data analytics
•UK and Continental European e-learning trends.

Leading edge e-learning

Contrary to marketing hype about Massive Open Online Courses (MOOCs), MOOC students tend to come from the already-privileged in society. Those signing up for MOOCs tend to be confident, top achievers and surveys have found that 79-86 per cent of MOOC students have a college degree.

Although not necessarily benefiting those whom their supporters claim them to be benefiting, MOOCs continue to generate huge interest and some controversy – particularly in the higher education (HE) sector and, increasingly, in the corporate world. There are now for-profit and not-for-profit MOOCs. Examples include Udacity or Coursera (for-profits) and university MOOCs such as edX.

Key issues for MOOC providers are:
• Do you try to make money – or at least not lose money – from a MOOC?
• If so, how can this be done?
• Do you use the MOOC as part of your marketing activities – to raise awareness of your products/ services and/or brand?
• And, for those in the HE sector, if MOOC students tend to be drawn from the already privileged in society, why do universities invest so much in MOOC-based free courses for well qualified professionals when undergraduates pay such high fees?

MOOCs can provide high quality online continuing professional development (CPD) for fee-paying professionals, using collaborative learning, user-created content and peer evaluation but with minimal accreditation. Universities could then use the income, resources and experience from the MOOCs to invest in online teaching and assessment for higher quality and lower cost undergraduate courses – as well as for free, open courses for schools and the wider public.

From a corporate perspective, MOOC providers need to link their software with learning management systems (LMSs) if they are to penetrate the business-to-business (B2B) market. Some LMS vendors, such as Docebo, already have capacity for administrators to use their LMS to build MOOCs.

Learning Management System (LMS)

There is continuing huge growth in the LMS market. More vendors enter the market than are leaving – but how many of them truly generate real revenue is open to interpretation. However, the LMS market is now splitting into LMS and learning platforms. The difference is in the reports/analytics that each one generates.

Many LMS vendors – including Adobe, Cornerstone OnDemand, Learning Cloud, Growth Engineering and Docebo – are now providing their products in software-as-a-service (SaaS) form only. In the LMS/ learning platform world, social learning and gamification are growing – especially gamification. Predictive analysis is also set to increase among LMS vendors.

Cloud-only vendors in the US who are seeking growth outside of the US are eyeing the UK first; then Western Europe. Vendors in the UK who are seeking international growth are eyeing the US first, then Asia-Pacific and, third, Western Europe. Many LMS vendors shy away from Australia due to the employee size of many companies there – but that is a mistake. Blackboard dominates the Middle East HE LMS market; Moodle is second.

Adobe Captivate Prime LMS, scheduled for release in August, should generate significant sales – especially from those with more than 10,000 users. Later, Adobe plans to release an LMS targeting the education sector. Adobe Captivate Prime could create a ripple effect, causing some vendors to change design.

Augmented reality and virtual reality

Augmented Reality (AR) entered the market around the same time as smartphones but is yet to find a stronghold in mainstream e-learning. Nonetheless, TCoT knows of current AR/VR applications being used in healthcare, business recruitment, retail, hotel and leisure, insurance and manufacturing.

Uncertainty about how and where to apply AR is stopping decision-makers from investing in AR-based solutions. For AR, the key technological →

question will be security and ease of rollout with multiple devices. Technology is still being improved, so the final product offering is not yet at the point where solid solutions are on the market. Here and there, companies are testing out elements as part of e-learning, but full integrations are rare.

AR platforms include Layar, Zapper, Daqri's 4D Studio, and Aurasma, the AR development arm of Hewlett Packard. They allow you to create an object (image, text, video, game) which can be shared in other media, such as e-learning or print. It requires the user to download an AR reader app before experiencing what has been created. ZooBurst allows you to create 3D interactive pop-up books – a fun addition to more traditional e-learning.

AR gives the option to blend holographic reality and sensor devices to intensify the experience of reality. Aurasma identifies 20

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per cent of its users as educators or students. This suggests we can expect to see more AR applications enriching students' education in the years to come. Avaya Live Engage provides an option, intended for the corporate sector, where an office environment can be modelled and course participants attend with their avatar. Learners can have side conversations and ask questions, as if they were live at an event.

However, many companies worried about security aren't keen on using smartphones, tablets and bring your own device (BYOD). Until this changes, AR will be hampered as an enabler of learning.

In VR, game design engines such as Unity and Unreel are offering free-to-use options, thus allowing designers to learn the craft. Authoring software ITy Studio now allows you to create a 3D setting, with characters based on pre-defined templates, and structured to design role-playing, scenario-based training. Its pricing model has improved and the product now integrates with Captivate, Articulate and Lectora.

Both VR and AR technologies were developed for the gaming and movies industries, where they work well. They are being adapted for other uses in daily life and work. There are amazing early-stage platforms and apps – as well as many start-ups – but, at present, VR/AR still feels a

bit premature. Corporate applications of this technology globally are only starting out.

AR should be bigger than VR but both have a place in e-learning. Watch out for the development of a holographic screen and keyboard, sensory and neurological trackers to follow what our responses are, along with other gadgets to measure performance. This is what established software houses and new start-ups around the world are testing.

Gamification

Gamification is the application of game mechanics, game dynamics and game theory to non-game situations, such as e-learning. TCoT knows of current gamification applications in use in the airline industry, IT and financial services.

E-learning organisations are adding game designers to their teams to offer more game-like solutions but in-house development teams often do not have the headcount to bring these resources into the team and, therefore, continue with traditional methods of e-learning – with mixed results and outcomes.

LMSs and authoring tools are still linear and template-driven in their approach, which is not always suitable for impactful gamification. However, most gamification platform providers will integrate seamlessly, or with some modification, to Moodle and other LMSs. The only open source technology on the market, to date, is Mambo.io, which only entered the market this year and requires some technical ability to make it work on internal systems. BadgeOS has been around for longer, but only provides a badging-related reward system. This can be useful for short-term reward but not necessarily for long-term engagement. Enterprise application giant, SAP, is also entering the industry with its platform. This will give corporate decision-makers choices and, for those already using the SAP system, an easy entry into the market.

Instructional designers and e-learning companies do not always support content gamification because it delays the speed to create solutions. Many e-learning developers are unfamiliar with the authoring tools for gamification. So they are reluctant to move to Unity, Unreel and other similar tools. Growth Engineering, the gamified LMS platform provider, has now published a gamified authoring tool which is available as a standalone tool as well as within the LMS.

Security and linking to external sources is often seen as an objection to rolling out gamification platforms, but most platform providers will work

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within the constraints of the IT requirements. Moreover, compliance with SCORM standards is not always achievable in gamification due to the nature of the files, but they fit well in an xAPI (Tin Can) approach.

The appetite for gamification solutions in the corporate and educational learning and development (L&D) sector is on the increase. Many are delivering above and beyond their expectations when well designed. Equally, some of the projects launched are being revised or cut short due to bad management, wrong objectives or non-existing objectives and not taking the target audience into account. Nonetheless, since gamification is largely user-centric in design, it will be the users demanding more of this style of learning that will make this approach more mainstream.

With concepts such as the quantified self and the Internet of Everything coming to the fore, learning will become increasingly personalised. The introduction of devices such as smart watches and neuro-tracking will be key in making gamification 'mainstream' – not necessarily as tools which deliver learning but as tools which track learners' adoption of the learning at multiple levels, from simple data entry to neurological changes.

Personalised e-learning and big data analytics

The amount of enterprise data, and the rate at which it is being accumulated, is rising exponentially. The proliferation of mobile devices, artificial intelligence, web analytics, social media and other types of emerging technologies is creating new data streams that add to traditional data stores, such as transaction records and financial data.

LMSs need to be able to provide statistical data related to learners' habits, because this opens the door to developing true personal learning environments (PLE). PLEs impact all levels of e-learning. We are now able to track the

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learner's journey throughout the entire learning experience, so it is now possible to focus on her/his requirements. There are the challenges of storing and accessing large data sets, but the bigger challenge lies in bringing together and interpreting disparate types of data. The value of big data is in extracting actionable insights through the deep analysis of that data.

Stakeholders are realising that market success is connected to having a personal approach to the customer. People are sharing information. Data analytics in e-learning is a circular process. Based on data that we get from learners, we can forecast their future activities. There are a number of benefits that big data offers to e-learning, all of which have the power to impact the future of e-learning and revolutionise the way we analyse and assess the e-learning experience.

Getting learners to use their own experiences to fuel their learning increases their enjoyment of the learning. They feel more connected to, and engaged with, the subject matter and so are more likely to retain it. Personalised e-learning and data analytics play major roles in tracking the learning results and the ROI.

UK and European e-learning trends

Corporate e-learning is a function of L&D expenditure and, while it has bucked the overall downward trend in corporate L&D expenditure, that pattern is still mixed across the EU with a number of almost contradictory trends at work.

Europe is growing in its uptake of e-learning, but its growth is patchy. Training levies, as in France, can stimulate demand; confidentiality issues in Germany can dampen demand, EU structural funds in many states have laid some foundations but, overall, the fragility of economic performance in many states contributes to the mixed picture.

Investment in acquisitions of e-learning and edtech companies will accelerate as publishers from Europe and large (principally US) technology vendors and telcos (especially in the emerging markets of Africa and Asia Pacific) get more interested in the global learning market. This is driven significantly, but not exclusively, by the growth in demand for HE (as *The Economist* put it recently, 'the whole world wishes to go to university').

MOOCs are glaciers, not tsunamis or avalanches. The spill-over into corporate learning has not been huge to date but, with new iterations such as VOOCs (from Virtual College) addressing vocational skills, other models will emerge leveraging the desire for low cost online learning, as is already proven by Udemy and a

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The Company of Thought

The Company of Thought (TCoT) is an international think tank that aims to help identify, analyse and generally shed light on developments in the corporate online learning industry worldwide – and discuss their implications for business. Its mission is 'to report and comment on trends within the corporate online learning technologies industry worldwide, independent of any vested interests'.

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Compliance will not go away. It will remain as a driver for e-learning adoption in the SME market but the learner experience will change with compliance-led games (using simulation and VR) along with adaptive learning and engaging video, which will mitigate and alleviate the repetitive sheep-dip compliance experience so detested by many learners.

Certification, and regular re-certification, will grow as quickly as the demand for qualifications. Badges and micro-credentialing evidence of competencies will be hugely important, while merely recording hours of CPD will ossify as an approach. Platforms such as Accredible, and MyShowcase from MyKnowledgeMap are well placed in this market, along with a newly re-configured LinkedIn which will also be used for evidencing learning and competences. CPD, as we now know it, will fade. Already the Solicitors Regulation Authority (SRA) is moving from a CPD-led to a competency-led approach. The leading standards body, IMS, is moving in the direction of competence-based education and training (CBE) with its Digital Credentialing initiative.

A new generation of assessment technologies, including effective remote proctoring ('invidulation') from companies such as ProctorU and Comprobo will lead to a change in how exams and tests are taken, allowing for location-independent online exams and tests.

Learning is globalising and EDTRIN is an interesting Australian/Singapore/UK venture that's seeking to bridge the market opportunity for European companies in the Asia Pacific market. This may be of significant interest to a number of aspiring ambitious e-learning and learning technologies organisations. **TJ**