BEYOND MAINSTREAM

#DIGITAL IMPACT

TECHNOLOGY ENABLES LEARNING

TECHNOLOGY MAKES IT EASIER TO SHARE INFORMATION

TECHNOLOGY MAKES INFORMATION AVAILABLE

THINK

ACT

CORPORATE LEARNING GOES DIGITAL

How companies can benefit from online education





3,000 companies in Europe are involved in the e-learning business. The market is booming. Facts and figures on corporate learning p. 4



growth per year and set to double by 2018: these are the forecasts for the corporate e-learning market – valued in the billions, it's one of the most impressive success stories in the education sector, itself already enjoying strong growth p. 5





The challenge for corporate learning: Corporate management wants to see measurable contributions to success.

What measurable successes – in business-speak: returns on investment – can be achieved by investing in continuing education for employees? What contribution does corporate learning make to companies' value creation, cultural transformation, strategy implementation or improving operating business? The pressure on those in charge of corporate learning to justify their existence has increased.

At the same time, company managers and corporate learning experts are being confronted with serious challenges that they have to answer:

TIME PRESSURE. "Strategy development" used to mean extensive analysis followed by planning. But today, with increased dynamics and complexity in their industries, companies often don't have the time to unhurriedly systematically formulate strategies. Instead, they develop short-term strategies or start implementation in parallel, since a company's agility is a key competitive factor. This shortens the time in which the change processes can be supported with training offerings. More than ever, it's important for companies to quickly define and implement the right actions. Learning is thus no longer an option – it's a strategic imperative!

GLOBALIZATION PRESSURE. The more international a company's locations, workforce and markets, the more important it is for its corporate learning options to be available worldwide. Standards need to be ensured and redundancies in design, development and provision avoided.

COST PRESSURE. Companies that have successfully emerged from the global financial crisis of

2008 have once again made themselves more efficient and stepped up the scrutiny of internal service providers and general administration costs. Global competition is forcing companies to constantly review all cost items. This development affects corporate learning in two ways:

One, many companies have cut out every bit of "organizational slack". Optimized processes and more tightly packed work have limited the time employees have for exploring areas beyond their current tasks and expanding their competence portfolio with internal learning opportunities.

Two, in addition to the cost of designing, developing and maintaining the offering, the costs of corporate learning are being viewed especially critically, particularly costs for trainers, travel and infrastructure.

These two aspects result in increased demand for offerings that make it possible to learn at the office and which can be better integrated into operating processes – as opposed to rigid, time-consuming seminars. Learning modules ("bite-sized learning nuggets") that are flexible in terms of time and location are the new form of sharing knowledge: this is one requirement facing the corporate learning field.

What's more, growing cost pressure as well as strategic considerations are pushing corporate learning divisions to provide offerings for customers, suppliers or potential recruits.

In addition, stricter risk management and legal regulations that place demands on corporate governance mean that documented review of individual learning progress in many areas is becoming more important.

* CORPORATE LEARNING FACTS AND FIGURES

77%

In 1995, only 4% of US companies offered e-learning in their professional development programs – today it is 77%

91,000,000,000

The entire e-learning market (i.e. not just corporate learning) today is already worth USD 91 billion – It is forecast to grow by over 20% annually up through 2017

13%

The market for corporate e-learning is expected to grow 13% per year up through 2017

3,000

Companies in Europe are involved in the e-learning business. The competition and significant investment will likely give rise to major innovations in e-learning

100

Of India's 140 e-learning companies were founded in the past three years

ROLAND BERGER STRATEGY CONSULTANTS

It's not just the requirements at the macro level that have changed – the expectations of the customer, or "learner", need to be considered (micro perspective). Three aspects are to be taken into account.

DIVERSITY. Having locations stationed around the globe means employees are also stationed around the globe: people with radically different backgrounds and levels of education are supposed to work closely together and meet certain training standards independent of their own individual starting points. Cultural differences also yield a range of preferences for learning formats and therefore differing levels of willingness to learn.

DIGITAL NATIVES. The demand for continuing education changed with Generation Y. Those born after 1980, also referred to as digital natives, have entered the workforce – and they are open for technology trends. They intensively use applications in all situations. They therefore see no reason why education/ learning shouldn't happen online. They are used to having knowledge available anywhere, anytime and tend to look for it at the last minute. They are active in online social networks, but at the same time prefer to learn "face-to-face". A recent study by Allen/Seaman shows that 6.7 million American college students, or about one third, already use online education options – and this figure is on the rise. They take this habit with them into the professional world.

LIFELONG LEARNING and longer (working) lives. The labor force in many countries is getting older, retirement age is rising. With knowledge increasing exponentially and requirements in the workplace constantly changing, employees have to always improve their skills to maintain their "employability". With only a small fraction of employees able to afford the time and money to periodically go back to school full-time, professional development is taking on a bigger and bigger role.

Could online learning offer a solution to the challenges described above? We believe there are many reasons to expect that online education will surge in importance over the next few years. The transformation will be driven by a technology push, a demand pull and a demographic kick. Experts estimate that in 2011, companies around the world spent USD 210 billion on corporate learning, about 20% of which went to corporate e-learning. Observers such as Global Industry Analysts in California or investment banking service provider IBS Capital in London predict that the market for corporate e-learning will grow at an average rate of 13% per year. This means that the market will have **2** doubled again by 2018 at the latest.

Corporate e-learning is thereby proving to be one of the most impressive growth segments in the education industry, which is itself enjoying strong growth. Already by 2011, 51% of Europe's companies offered an online training unit, which more than half of their employees had made use of. Among European countries, England and Spain have the greatest preference for e-learning – if somewhat less than in the US. By that same year, 77% of the companies there used e-learning.

In short: Online education has the potential to revolutionize how we learn, whether on the college campus or in the office. Online technologies paired with social media are changing supply and demand from the ground up. This disruptive change results in new business models for training providers – and with them, new opportunities for the future of lifelong learning at companies. Digitalization will also lead to massive changes in corporate learning, similar to what Amazon did to bricks and mortar retail.

The answer. New diversity on the online education market.

Once again, the internet is changing the rules of the game. It's giving the education market a completely new image. Rising venture capital investment is a measure of the positive expectations that the market has of online education: in 2005, investment in technological advancement amounted to USD 52 million. In 2012, this had multiplied by over 20 times: USD 1.1 billion in venture capital was invested in online education approx. 60% of which in the US. This new education market reached a significant size some time ago and further growth is expected. Therefore, there is a commercial answer to the changes on the market, with crucial technological product innovations. Social interactions between the trainer and the trainee, creative learning such as collaboration and group work among students are commonplace in today's online learning. This means that the second generation of online training offerings is considerably further advanced than the first generation, which debuted on the market about ten years ago.

At the same time, technological advancements have made online educational offerings more accessible. Transmission bandwidth and speed as well as data processing and storage capacity have increased. The number of people who access the internet using a smartphone, tablet or PC has grown exponentially. Whereas 64% of the European Union's population was online in 2008, in 2013 it was already up to nearly 78% – more than 390 million people. In emerging economies, growth is even more rapid. Between 2013 and 2019, the number of smartphone users is expected to triple to over 5.5 billion people, and the amount of data shared via smartphone is forecast to increase by a factor of 10. The costs of these technologies have declined. Taken together, these developments mean the potential for mobile learning ("m-learning") has risen considerably.

Policymakers in various countries have also recognized the business potential of online education and are promoting promising initiatives. South Korea was one of the first to take action here. As of 2013, the EU has supported an initiative entitled "Open Education Europa", which aims to bundle and promote the online education offerings of various providers. Several notable initiatives have also cropped up recently in individual European countries, such as "France Université Numérique" (FUN), which has been given "national priority" in France.

The French have "FUN"

The objective of "FUN" is to provide higher education online for all. The initiative is expressly devoted to continuing professional development in companies. In Germany, a country characterized by "educational federalism", the federal states support projects such as "Virtuelle Hochschule Bayern" (Virtual University of Bavaria). At the national level, the Federal Ministry of Education and Research supports a program for digital media in education. The Federal Ministry for Economic Affairs is developing a strategy for "intelligent networks"; one of the areas it will deal with is education.

One more thing speaks for online offerings: with the pan-European bachelor/master degree system and the European Credit Transfer and Accumulation System's (ECTS) standards, the EU has created a uniform system for recognizing educational degrees. Using these standards, companies can better understand which level of academic education is provided by a particular education offering – regardless of country or provider. The various education offerings, whether online or traditional, are easier to compare.

The number of technological solutions for online education is growing as is the number of content providers. Besides established professional development providers, more and more publishing houses and media outlets are getting involved. As advertising revenues fall, the demand for professional development is rising and offers new business models. If they haven't done so already, quite a few publishing houses and media outlets are diversifying into education groups, of course with an increasing amount of online offerings in the portfolio.

In addition to the countless education firms experiencing strong growth, innovative start-ups are showing up everywhere that have aligned their business models to the lucrative growth market for e-learning and other online educational opportunities. Currently, IBIS Capital estimates that the European e-learning market alone consists of about 3,000 predominantly smaller companies. They have a range of business models that cover the entire value chain: from content development and the technological platform, i.e. the management system for teaching and learning, to organizing and arranging training courses. This in turn covers the whole spectrum of e-learning, from blended and social learning to mentored and mobile learning. This fragmentation can be interpreted as a sign of the relative immaturity of the market, while also reflecting the wide variety of market conditions in individual European countries. In the future, many of these providers will probably consolidate.

Harvard is just a click away

Even the world of higher education is in flux – with important implications for companies. Up until 2011, it was mostly less well-known colleges and universities that attempted to raise their profile with online offerings. However, now Harvard, Stanford and MIT have joined the fray, underscoring the fact that the internet is of strategic relevance for top universities as well. The prices for higher education have risen steadily, particularly in the US – often more than the students can comfortably afford. Online education has therefore become even more attractive as a more affordable version of high-quality university courses. Initially, the idealistic notion of free education took the spotlight: for everyone, anywhere, at any time. Technology has made this vision a tangible reality. Internationally renowned courses are just a click away on a tablet: Harvard at your fingertips.

MOOCs, massive open online courses for hundreds of thousands of students, were the magic word. Others saw these interactive video courses simply as a marketing channel for the regular, fee-based program consisting of traditional classroom teching and e-learning courses. (A)

The well-known universities with their strong brands have already developed successful offerings in the field of executive education. More of these are now online, such as the "Harvard Managementor". If these universities and their publishing houses are now setting up and expanding their online courses, further strong impetus is likely.

What's incredible for those at companies purchasing learning offerings is that many established distance-learning universities in Europe are not much more innovative in online teaching than traditional universities – despite their proven experience in distance teaching and the potential threat presented by other players entering the market.

But in any case a clear signal has been sent. Premium education is now available online too. This will soon be visible on applicants' CVs. There should no longer be any reservations about the medium. Instead, companies should systematically use online learning.

MOOCS, POOCS, SPOCS ABBREVIATIONS FOR THOSE IN THE KNOW

MOOC stands for massive open online course. These include (video) courses that may have large numbers of participants, can be taken without any entrance requirements, mostly free of charge (open) and offered online. The courses can be viewed any number of times whenever and wherever students want. Students have to answer test questions, in some cases with the support of online tutors. One key feature of this format is that students interact online, work jointly on topics and answer each other's questions. Brainstorming in a peer group makes it unnecessary to have a trainer in some cases.

MOOCs thus stand for a vision of a world with more equal opportunities. They stand for free access to edu-

cation – an ideal that could improve many people's lives if it becomes a reality. The New York Times dubbed 2012 the "Year of the MOOCs", because MOOCs were being praised enthustiastically by everyone. A few dissenting voices pointed out that the students came from industrialized countries and already had a certain level of education. Added to this were the high dropout rates (90% or more) and a vague – in other words, nonexistent – business model. As MOOCs are virtually free for students, there is little money to be made, not even from the fees for taking particular exams.

Despite this, MOOCs have maintained their role as catalysts of the rapid transformation toward more online education. Stanford professor Sebastian Thrun,

NAME	FOUNDED IN	PARTNER UNIVERSITIES	MOOCs	USER
Coursera	2012 by Stanford Professors Andrew Ng and Daphne Koller	108 universities from various countries worldwide	627	6,400,000
OpenupEd	2013 by EADTU (Europe's Institutional Network for Open and Flexible Higher Education)	11 universities from various countries, mainly in Europe	272	n.a.
edX	2012 by the Massachusetts Institute of Technology (MIT) and Harvard University	31 universities from various countries worldwide	133	1,800,000
Future Learn	2013 by the Open University	26 universities mainly from the UK plus several from Ireland, Australia and New Zealand	44	200,000
UDACITY	2012 by former Stanford professor Sebastian Thrun plus David Stavens and Mike Sokolsky	3 universities	33	1,800,000
iversity	2011 by two German former students, Jonas Liepmann and Hannes Klöpper	23 universities from various countries, mainly in Europe	28	500,000

PIONEERS OF THE TRANSFORMATION

The key MOOC platforms



the "godfather of MOOCs" as well as a Google genius, recently announced a remarkable change at Udacity, an online portal offering Stanford-level classes. The portal will be providing fewer purely academic offerings and more courses tailored to the specific needs of companies. Thrun is not alone in this. It looks as if some acronyms have already taken the lead: "SPOCs", "SOOCs" and "POOCs" are just some of these.

There is already another MOOC provider, "First Finance", which has announced 20 MOOCs for the financial services industry by the end of 2014. Over 27,000 participants have apparently already signed up, and 120,000 is the goal.

Thrun and others will want to prove that MOOCs are more than just a good story. The new goal is already clear. Udemy, a Web platform for online learning, predicts that 2014 will be the "Year of Corporate MOOCs". And why not?

B **MEDIA TRANSFORMATION**

INTERNATIONAL PUBLISHING AND MEDIA COMPANIES ARE FINDING NEW BUSINESS OPPORTUNITIES IN ONLINE EDUCATION

PEARSON

UK

Publishers, sales of EUR 6.2 billion in 2013, Focus on learning and online education (just under 80% of sales; approx. 45% online)

ONLINE EDUCATION: Pearson is one of the leading providers of educational software and online education - Claim: "The world's leading learning company"

ACQUISITIONS: Over EUR 3 billion (GBP 2.5 billion) since 2006, mainly in e-learning, incl. Exam Design, TutorVista (India), Scoot & Doodle (USA), IndiaCan-Education (India), Learning Catalytics (USA)

GRUPO PLANETA

Spain

Publishers, bookstores, reading clubs and film production, sales of EUR 2.8 billion in 2012

ONLINE EDUCATION: Online offerings are aligned to the Spanish labor market and are being continuously expanded

ACQUISITIONS in e-learning over the last few years: VIU (online university), Aula Planeta, CEAC, English Today ...

HOLTZBRINCK PUBLISHING GROUP Germany

Family-owned publishers, incl. print and electronic media, sales of EUR 1.9 billion in 2012, digital realignment in 2000, investment focused on new online business models, education and science/ academia

ONLINE EDUCATION: Involved mainly via subsidiary Macmillan Publishers (38% of group sales), which includes Macmillan New Ventures MNV, Macmillan Digital Education and Macmillan Education

ACQUISITIONS: MNV has over USD 100 million in investment funds to be used to expand portfolio by 2015

REED ELSEVIER

UK/Netherlands

Publisher traditionally specializing in in academic and specialist magazines, sales of EUR 7.1 billion in 2013

ONLINE EDUCATION: Sales involving electronic media tripled over past ten years

ACQUISITIONS in e-learning over the last few years: Mendeley (UK), Babbel (D), fingerprint (USA) ...

Corporate Learning. What we need to do now.

Online corporation education is changing the rules of play in each of the four stages of the value chain of corporate learning.

1. Defining what needs to be learned

Capacity and competencies: compare target versus actual to define the boundaries of the learning offering. When analyzing learning requirements in the company, it is essential to understand what competencies are required to achieve strategic goals. First you need to be clear about employees' existing competencies. Their formal qualifications are only the starting point, because a person's first degree or first vocational qualification becomes less important over the course of his or her career. Further training thus becomes more important. External online courses are both a challenge and an opportunity for employers. Do they suit the company's needs? It will become easier to answer this question.

For successful participation in online courses, education providers such as the UK's Open University are increasingly awarding "badges" – informal signs of accreditation. Professional online networks like LinkedIn now display these badges on individual profiles, making it easier for potential employers to identify them. What's more, MOOC pioneers such as Coursera and edX are planning to – for a fee – transfer credits from taking their classes to regular courses of study that culminate in an accredited qualification. European universities have the option of awarding ECTS for certain online courses. Badges and ECTS thus offer a way to compare qualifications earned online. Companies and industry associations could speed up accreditation by stating training requirements more proactively than before and developing their own badges or certificates as standards. This is already the norm for accountants, because they have to do certain further training in order to keep their licenses. Companies that can state requirements and set credible standards will influence the supply side and reap the benefits. Certificates issued jointly by training providers and companies could be of interest to all parties:

> Employees would gain an accredited qualification in demand by employers and could do this at their own pace while continuing to work.

> Companies could refine their competency portfolio with specific skills in a targeted way, regardless of location. At the same time, employers would make themselves more appealing by offering certified training for their employees.

> Conversely, learning providers could offer tailored, in-demand courses that people would be willing to pay for.

2. Designing courses

Who should learn what, and how? Creating a learning concept involves reviewing or refining educational offerings. Online education is the answer to current requirements for corporate learning, but the technology should never be the focus: The content and teaching concept is what's important. The use of online modules is always the result of a careful, comprehensible selection. Online offerings are constantly becoming more attractive and diverse. Here are a few examples: **MODULARIZATION.** Just as information and communication technologies are breaking up value chains in industrial production (unbundling), the development of online education leads to educational offerings previously offered only as a package, such as an MBA, being split into mini-packages, i.e. courses that let students accrue credits. This modularization enables corporate learning units to cherry-pick what they want. They are no longer tied to one provider for whole programs, but can collaborate on a course-by-course basis with individual providers due to falling transaction costs. They can get in touch directly with the provider or use new platforms such as Noodle, which pool offers and have search functions that enable transparency and targeted selection. As online education is not linked to a specific location, the range of possible partners is much bigger.

BLENDED LEARNING. In the infancy of e-learning, around the turn of the century, the technology de-

termined the teaching methods. E-learning meant making educational materials available online. Today, more value is placed on teaching methods and social interaction has become a key factor in successful learning. Education researchers agree that this is crucial in disseminating knowledge as well as in creativity, and thus in creating new knowledge and solving problems: "You do not achieve knowledge creation through containerization, you achieve it through collaboration." That's how Don Tapscott, expert in technology and social innovation, summed up the findings. Thinking in terms of departments, business units or corporate boundaries must therefore be overcome. A mix of methods usually leads to better educational results than a single learning method. The result is called blended learning - a mix of online studying and classroom teaching. Nowadays the concept is so advanced that social interaction is possible even without a physical presence.

C

VALUE CHAIN IN CORPORATE LEARNING Capacity, competencies, control

1. DETERMINE LEARNING NEEDS (ANALYSIS)	2. DESIGN AND DEVELOP COURSES	3. IMPART KNOWLEDGE AND SKILLS (DELIVERY)	4. CHECK KNOWLEDGE APPLICATION/BEHAVIOR CHANGE (EVALUATION)	
 > Derive requirements from corporate goals > Analyze existing capacity/ competency profiles 	 > Who should learn what, and how? (develop teaching strategy and didactics) > Check available offers to set if they fit or design own material 	 > Tell everyone about the program and manage participation and formats > Generate the necessary knowledge and/or convey skills 	 Evaluate (KPIs: participant satisfaction, learning progress, business impact) 	
 > Determine learning needs by comparing target versus actual > Define KPIs 	> Develop a program	> Make a change in the way employees think and work	 > Determine ROI > Identify any necessary changes 	
1	↑	↑		
		INCORPORATING EVALUATION FINDINGS		

Online technologies should therefore remain at the heart of corporate learning. They enable informal learning that is spontaneous and on students' own initiative. Corporate learning must therefore provide infrastructure and information as well as the right framework and incentives to get the right people to collaborate.

FLIPPED CLASSROOM. While the pure accumulation of knowledge can be done individually online, the valuable time with students or in a study group should be used to apply concepts, discuss them, clarify issues and review the subject matter learned against the backdrop of social interaction. The lecture or tutorial form is outdated – except for truly charismatic professors.

DIRECT PERFORMANCE SUPPORT. When training people to use software, it is not usually possible or educationally sensible to teach the whole range of functionalities of a software package – but the appropriate function must be able to be found when required. So this is a kind of just-in-time knowledge provision. Digital natives are familiar with this approach: if they want to know more, they use their smartphone to read a QR code. If a company holds back information, it must make certain that if worst comes to worst, all necessary information is available and is up to date, easy to understand and immediately applicable.

AUGMENTED REALITY APPLICATIONS simulate information in three dimensions, thus making it visible in a realistic way. They also enable a learning situation in which projections are used and changed interactively. This may help support students' powers of imagination and make it easier to transfer what's been learned to a specific work situation.

GAMIFICATION. A game-live environment transforms tasks into exciting challenges, rewards learners for their commitment and is efficient in the form of concrete feedback regarding their own skills. This improves acceptance and helps motivate the participants to get actively involved. In this case as well, the learning speed of individual participants can be customized and the learning success precisely defined. Well-thought-out games encourage commitment, critical thinking, creative problem solving and team work. Whether the company buys the content for the various teaching formats to be used in the company or develops it itself depends on a number of factors: How company-specific is the content and how good a fit are external offers; how many participants are designated by the company (scale effects); which options are available for obtaining recognized certification or creditable performance points?

3. Disseminating knowledge and enabling

Corporate learning focuses on changing mindset and behavior at the workplace. Learning is complete only after a transfer to the work environment has been made. We believe there are six optimal approaches and one warning that need to be observed in online environment:

FIRST: The more geographically spread out the participants, the more suitable online education is for organizing communication and knowledge development among the participants.

Example: As one of the first international renowned business schools without having a distance-learning tradition, Kenan-Flagler Business School is offering a complete MBA program online. This means participation is possible, for instance, to even US naval personnel working on a submarine in the Pacific.

SECOND: The more heterogeneous the knowledge level of the individual participants in terms of the curriculum is, the easier it is to realize the idea of a "flipped classroom": Facts are imparted online and the course can be prepared by way of virtual questions and discussion forums so that during actual classroom teaching there is time to focus on the already learned concepts and discuss and practice these with the trainer in detail.

Example: A strategy consultancy hires university graduates with various different academic backgrounds. The firm wants to ensure that through its HR development program that all consultants understand basic business concepts and approaches. To initially impart fundamental knowledge in topics such as strategy, organization and finance, the consulting firm draws upon the

O

NEW TECHNOLOGY, MORE CREATIVITY

Social online technologies enable the development of interactive complex knowledge



online education services offered by a renowned business school. The students can take a precise and flexible (in terms of timeframe and location) approach to close any knowledge gaps. This also means they can use the time between graduation and beginning their new job to already start the learning process. (Participants can even collect credit points that can be used later on in their career and credited to a Master or MBA program.) Then in classroom training, the consultancy can begin with a uniform level of knowledge among the participants and start off immediately by teaching key practical consulting concepts and company-specific approaches. **THIRD:** Students studying in parallel to work have less flexibility in terms of space and time to step away from their daily work, which makes the options afforded by online education all the more attractive.

Example: Sales staff at a major global pharmaceutical company need to always be on top of changes in products, legislation and market or company developments. This means these employees receive specific information and online training on their computers that they can call up at any time. In turn, the company can be assured that all its sales staff are always available online and possibly check up on completed training sessions. **FOURTH:** The more important it is to monitor individual learning targets and the more it has to be ensured that a target group is up to speed on a specific topic (e.g. making sure new staff is up-to-date on the latest tools and techniques), the more suitable are e-learning formats with "roll calls", exam questions and verification of the learning success.

Example: A company in the healthcare sector needs to ensure that all employees are familiar with the company's compliance rules from day one. The company develops online training courses for the various employee groups. These courses use concrete examples to illustrate proper behavior and all employees are obligated to take these courses. New hires must have completed this within a certain amount of time. Employees use multiple-choice tests to personally monitor their progress and must continue until they have passed the test. The company can monitor and document the progress of each individual employee.

FIFTH: The more general the content that needs to be learned, the more suitable are online offers compared to classroom teaching. This is because the new topic can be learned wherever at the student's own pace. This is known as the "Personal Learning Environment" (PLE). The technologies, systems and content available to each employee at his or her workstation make it possible to customize courses to the individual needs and habits of each student. Learning can, for instance, occur by collecting data and acquiring knowledge by sharing information with exactly those people also interested in the same topic and experts within or outside the company. And this can be leveraged even further by collaborating or jointly developing know-how and relevant applications.

Example 1: A global company with 100,000 employees has recently undergone a merger and integration. It wants to familiarize all existing and new employees with the new structures, product portfolio, company history and different sites. To do so, it develops an online solution using a quiz, a puzzle and other entertaining tasks to help employees get to know the company in a playful way in 60 minutes.

Example 2: An international accounting firm wants to ensure that its auditors for the banking industry are well connected and support each other with their expertise. In addition, it wants to keep the auditors informed of the latest developments and changes in the regulatory environment, etc. In the company's social intranet, a forum is set up for all employees who audit banks. Here, there is both formal learning via webinars with mandatory participation as well as an informal exchange of knowledge and joint refinement of knowledge. Experts on specific topics can be presented, interesting studies provided, discussions conducted and the latest news shared. In addition, employees can set bookmarks, join online communities, blog, twitter, subscribe to news-feeds on the topic and thus make sure they each keep up to date.

SIXTH, the more it is about developing new knowledge, changing behavior or coping with cultural change, in other words more than pure knowledge acquisition, the more it will be essential to choose blended-learning approaches and to focus on collaboration and communication.

Example 1: A global chemical company wants to systematically leverage the value proposition of diverse teams and thus introduces a new understanding of diversity and inclusion. It must now rework corporate processes, communicate the new diversity attitude and goals to all staff and realign old patterns of behavior. Using blended learning, all participants in a training course can be informed about the key changes beforehand. During the training course, new patterns of behavior can then be tried out and reflected upon. Via online communities, initial experience with new rules and processes can be swapped and made clear. Equally, initial change achievements can be shared online with all employees.

Example 2: A global technology corporation with different business units would like to highlight its excellent young managers, help them develop their career, link them up together, establish a common understanding of leadership and make the corporate culture tangible. For this purpose, an executive development program is set up which takes place specifically in the

MISJUDGED, OVERESTIMATED, INDISPUTABLE HYPE CYCLE OF CORPORATE ONLINE EDUCATION

EXPECTATIONS



Amount of time until broad deployment/acceptance among companies

0-2 years 2-5 years >5 years

Source: Gartner method, Roland Berger estimates

company headquarters and at key sites in order to achieve transparency in the group and get board members involved in the programs too. Joint "learning expeditions" to suppliers and collaborating companies are organized. Apart from some project work, meaning an action-learning approach that can also be done online by participants, in-person learning is given preference. The more mission-critical and company-specific the content of online education is, the more important IT security has to be – and companies will fall back on offline channels. That's the warning: although business espionage has other ways of access apart from the internet, it also represents a slight threat to the opportunities provided by the almost boundless linking of experts in global companies.

4. Reviewing application of knowledge and behavioral change

Evaluation helps draw conclusions about what's been achieved and improvement potential in the first three value stages. Harvard and MIT say they entered the online education business out of a research interest in learning itself. This is not simply an abstract access point, as online learning involves huge volumes of data being gathered about individuals. Learning analytics that's when big data meets education! The idea is to enable students to take a learning path tailored to their individual requirements, similarly to how Google or Amazon leverage customer data. Our findings about how individual learning actually happens, what learning types exist and what teaching methods are especially suited to different kinds of learning content will continue to expand. Sophisticated tools for tracking user behavior allow you not only to measure data such as study times, study behavior, intensity of interaction or test results, but also to make increasingly accurate forecasts of the likely success and recommendations to increase it.

The success of an individual type of teaching format can be checked and documented, so that the value added (or return on investment) of corporate learning offerings is clear to corporate management. The data lets teachers and students draw conclusions about other individual support needs.

For example, the Stanford Lytics Lab – financed by the Bill & Melinda Gates Foundation, among others – and the Khan Academy are working on informing online instructors about students' learning behavior. Pearson Learning Studio, a provider of learning management systems, provides school boards and politicians data on students to help them develop better educational offerings.

Despite all this transparency, learning is a complex process that will not be decoded in the future only by analyzing data.

We must also not forget that in many cases corporate learning is not aimed at accumulating abstract, easily testable knowledge but at changing the behavior of individuals in their specific work situation to improve company performance overall. Actually proving this behavioral change empirically remains difficult even with the technological opportunities of online education. Finally, data protection issues and the right to privacy are implicated.

Summary. A promising avenue for companies.

The opportunities offered by online education influence all stages of the corporate learning value chain. The changes will be so far-reaching that they will affect the learning culture within the company as a whole. Learning and knowledge development in the future can be integrated into employees' day-to-day work more intensively than previously possible.

This makes it more likely that new forms of learning will prevail. Management will promote this development and employees will seize the opportunities acting in their own best interests. Online learning technologies favor intrinsically motivated, independently organized learning and help employees to take charge of their own training and development rather than expecting the company to provide it all. Technologies allow for agile and adaptable organizations that encourage learning. Only if managers use these technologies to promote a learning organization can they create a culture of sharing knowledge, learning from one another and communicating across hierarchies. The future is not in free, mass offerings, but in customization and tailoring of education for lifelong learning. That is a promising avenue for providers of exclusive education and for companies that leverage it for their own purposes. Technologically integrated solutions make it possible to close the gap between academic education and corporate learning. What is decisive is the attitude within the companies: the major shifts in corporate learning require a high degree of openness. Openness to this transformation, openness to its speed, and openness to actively shape the transformation. ◆

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ROLAND BERGER STRATEGY CONSULTANTS GMBH

Mies-van-der-Rohe-Str. 6 80807 Munich Germany +49 89 9230-0 www.rolandberger.com

Editor

THOMAS REINHOLD Managing Editor thomas.reinhold@rolandberger.com

The authors welcome your questions, comments and suggestions

DR. KATRIN VERNAU

Partner Roland Berger School of Strategy and Economics +49 40 37631-4365 katrin.vernau@rolandberger.com

MAREN HAUPTMANN

Partner +49 89 9230-8686 maren.hauptmann@rolandberger.com

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