A report by Docebo | March 2014
Foreword

This report, by Docebo, is intended to help any decision maker who needs statements, arguments as well as facts and figures to prove, with real and tangible data, the added value of E-Learning initiatives to stakeholders.

It sets out the results of research analyzing key technology assets for continuous education. It endorses the use of online learning technologies to:

- Keep the workforce appraised of their job functions’ developing requirements, enabling them to make a positive impact within their Organization and help that Organization achieve its aims and goals;
- Aid succession planning, helping workers to acquire the knowledge and skills to help them progress within their Organization;
- Allow Organizations to keep training budgets under tighter control, develop and retain existing employees and reduce the costs related to external human resources recruitment, selection and on-boarding.

Docebo, a disruptive Cloud E-Learning solutions provider with over 28,000 customers worldwide and an international partner network in more than 26 countries, welcomes the opportunity to further the conversation with you. Please contact us to learn more about how an integrated learning management system can empower your employees to greater effectiveness.
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Executive summary

The current speed of change means that employees need to be trained continuously in order for Companies to avoid the dangers of being out-thought and out-maneuvered by competitors. These training initiatives (incorporating individual and group training activities) need to be monitored and managed via a consistent and reliable tracking system that can be stored, consulted and analyzed as required. The system's data will be useful for management reports on productivity and for assessing individuals' career advancement.

This system of Training management -- often referred to as a learning management system (LMS) -- is a key element of an effective professional development plan as well as being a key element of an Organization's human resources strategy.

There seems to be universal agreement that the worldwide E-Learning market will show fast and significant growth over the next three years. The worldwide market for Self-Paced E-Learning reached $35.6 billion in 2011. The five-year compound annual growth rate is estimated at around 7.6% so revenues should reach some $51.5 billion by 2016. While the aggregate growth rate is 7.6%, several world regions appear to have significantly higher growth rates. According to recent regional studies, the highest growth rate is in Asia at 17.3%, followed by Eastern Europe, Africa, and Latin America at 16.9%, 15.2%, and 14.6%, respectively.

Each of the world's regions has its idiosyncrasies in terms of the factors that drive this market. The U.S. and Western Europe markets are the most mature. The U.S.A. spent more on Self-Paced E-Learning than anywhere else in the world. Western Europe is the world's second largest buying region for E-Learning products and services but Asia is predicted to outspend Western Europe in E-Learning terms by 2016. In 2012, Bersin & Associates stated that there were some 500 providers in the LMS market and only five of them have more than a 4% market share. According to this, the LMS market was expected to reach $1.9 billion in 2013. However the growth exceeded expectations, closing the year at $2.55 billion.

The Cloud is changing the way Organizations, Employees and Partners interact and collaborate. Within the Cloud solutions universe, Software-as-a-Service (SaaS) is playing a major role. According to Gartner, SaaS will continue to experience healthy growth through 2014 and 2015, when worldwide revenue is projected to reach around $22 billion. Gartner has stated that many Enterprises are now replacing their legacy systems with SaaS-based CRM systems. Enterprise clients also report that SaaS-based CRM systems are delivering new applications that deliver complementary functions which are not possible with older, legacy CRM platforms.

Various surveys and analyses into the reasons behind this big growth in SaaS agree on at least three. SaaS brings:

- Speed of implementation
- Savings on capital expenditures
- Savings in terms of operational expenses

The SaaS model is also playing a major role in helping to increase the size of the E-Learning market. Small and Medium-sized Enterprises (SMEs), as well as large Corporations are making the adoption of a SaaS LMS a key priority. In particular, large Corporations are switching to
a SaaS LMS from in-house LMS solutions or they are now using a SaaS LMS as a secondary learning system for special training purposes.

E-Learning is subjected to the influences of sales trends related to smart connected devices and the Internet megatrend (that is, the spread of the Internet in the world).

According to IDC, the number of PCs will fall from 28.7% of the device market in 2013 to 13% in 2017. Tablets will increase from 11.8% in 2013 to 16.5% by 2017, and smartphones will increase from 59.5% to 70.5%.

The new frontier to address is the trend towards Bring Your Own Device (BYOD) -- where individuals take their personal (usually mobile) devices to workplaces. Increasingly, these seem to be being used to help their owners perform work activities (including formal training), both in and out of the workplace. Smartphones are the most common examples of these devices but employees often also use their tablets or laptops in the workplace.

While the corporate-training market has lagged behind other education-based sectors, it continues to represent a viable investment opportunity.

The corporate-training market is among the most cyclical within the education industry. Since 2010, employers’ total spending on training and the amount spent per employee -- the key data used to measure this sector -- have been declining. However, the corporate market related to outsourced services (net of all ancillary costs) has grown to reach 42% of total expenditure.

Within the training industry, the E-Learning sector has grown consistently in recent years. All its subsectors (Packaged Content, Platform, and Authoring tools) show positive annual growth. Market acceptance of E-Learning has resulted in its increased use for both large and small companies. SaaS/Cloud E-Learning solutions are particularly suitable for Organizations ranging from SMEs to large institutions.

General budget constraints appear to be the main drivers of the shift towards using E-Learning. However, E-Learning is not merely a solution which is attractive during an economic downturn but it is also an efficient and cost-effective solution when workers -- especially those in Organizations with a widely geographically distributed workforce -- need to be brought up-to-speed quickly on relevant knowledge and skills.

K-12 and post-secondary are two key sectors of the educational market. One of the key characteristics of the education sector is its large base of potential users. Importantly, each of these users may start in the K-12 or post-secondary markets but they have the potential to also become future users of vocational training programs. Their involvement in E-Learning projects at the K-12 and post-secondary stages will build a large base of users already accustomed to using such technologies in order to learn.

With the inflow of an estimated $6 billion of venture capital over the past five years, E-Learning is being driven not only by startup dot-com entrepreneurs but also by big corporations, for-profit spin-off ventures, as well as big and small universities.
Introduction: the strategic role of continuous education

One way to stay on top of a rapidly changing market is to implement a business strategy that maximizes the synergies between lifelong learning and workforce productivity.

Without appropriate technological support, training programs appear to be less effective. Research has shown that E-Learning proves to be an excellent way to achieve quality results in a short timeframe. Online-delivered learning, within a context of continuous education, is considered strategic because it:

- Keeps the workforce appraised of their job functions' developing requirements, enabling them to make a positive impact within their Organization and help that Organization achieve its aims and goals
- Aids succession planning, helping workers to acquire the knowledge and skills to help them progress within their Organization
- Allows Organizations to keep training budgets under tighter control, develop and retain existing employees and reduce the costs related to external human resources recruitment, selection and on-boarding

The current speed of change means that employees need to be trained continuously in order for Companies to avoid the dangers of being out-thought and out-maneuvered by competitors. Thankfully, entrepreneurs, senior executives and business managers recognize this.

A poorly educated workforce results in decreased, indeed ever decreasing, levels of productivity and reduces their ability to deliver results. Ignorant and poorly skilled staff can't (or at least shouldn't) be promoted -- since they don't have the appropriate skills to help their company reach its business objectives. So Organizations need to go to the expense, in terms of time and trouble, of recruiting staff with new knowledge and competences from outside the organization in order to cover middle and senior level positions.

It's important to realize that not only does this practice have a negative impact on the organization, in terms of high costs per individual worker, but company results show that this approach isn't always successful.

According to recent research (Lifelong Education and Labor Market Needs, published in The EvoLLLution online newspaper) examining the need for continuing education in the workforce, 64% of executives who are recruited externally fail within four years of joining the organization.

Ideally, every company should have a plan in place for each of their employees. This plan should set out career development paths and the required training programs that will enable the employees to develop the necessary knowledge and skills.
These training initiatives (incorporating individual and group training activities) need to be monitored and managed via a consistent and reliable tracking system that can be stored, consulted and analyzed as required. The system’s data will be useful for management reports on productivity and for assessing individuals’ career advancement. This system of Training management -- often referred to as a learning management system (LMS) -- is a key element of an effective professional development plan as well as being a key element of an Organization’s human resources strategy.

Continuous education is considered strategic
Employers say Ongoing Education has Positive Implications for the Company and the Employee

Employers recognize the impact of ongoing education and reward their employees accordingly.

Growing Global E-Learning Market

There seems to be universal agreement that the worldwide E-Learning market will show fast and significant growth over the next three years.

The worldwide market for Self-Paced E-Learning reached $35.6 billion in 2011. The five-year compound annual growth rate is estimated at around 7.6% so revenues should reach some $51.5 billion by 2016.

A definition of Self-Paced Learning is Education in which learners study at their own pace, without a fixed starting date or regularly scheduled assignment completion dates in common with other students enrolled in the same program. However, there may be a fixed overall completion timeframe.

While the aggregate growth rate is 7.6%, several world regions appear to have significantly higher growth rates. According to recent regional studies, the highest growth rate is in Asia at 17.3%, followed by Eastern Europe, Africa, and Latin America at 16.9%, 15.2%, and 14.6%, respectively.

The E-Learning market is clearly expanding year-on-year, even though it’s difficult to compare market data coming from different sources. For example, if you include the Gaming and Gamification tools within the E-Learning market, then the growth numbers are even more impressive.

Using a “classic” understanding of E-Learning reveals at least three dominant sub-sectors: Content, Authoring tools, and Learning Platforms.

The recent innovations within the technology infrastructure divide the Learning Platform into two business (and technological) models: Hosted and Installed platforms. According to a recent analysis from Ambient Insight, these sub-sectors are expected to grow at different rates:

![Growth rates by product](chart1)

2011-2016 Growth rates by product (Ambient Insight 2012)

In 2012, Bersin & Associates stated that there were some 500 providers in the LMS market and only five of them have more than a 4% market share.
According to Product & Users, the LMS market is expected to experience a growth of 23.17% between 2017 and 2018.

According to Ambient Insight, the packaged content market will reach $38.3 billion by 2016 (*SOURCE: AMBIENT INSIGHT 2012*).

According to sources, large and affirmed Companies (such as the Global 5000) are the primary buyers of E-Learning products and services. They account for more than 30% of the E-Learning Market clientele.

![2013 Projected Global LMS Market Share](image)

*Source: Bersin & Associates, 2012*

This market share is an overall image of the market. This picture changes significantly if the focus shifts to specific producers and specific market sub-sectors. Moodle, for example, currently has more than 30% of the market in the Education and Government sub-sectors. (*SOURCE: E-Learning GUILD RESEARCH*).

According to the Bersin Industry study, the LMS market was expected to reach $1.9 billion in 2013. However the growth exceeded expectations, closing the year at $2.55 billion.
A synthesis and analysis of all the available data, results in the following estimated forecasts:

### Total E-Learning Market
(LMS + Packaged Content + Other Services)

<table>
<thead>
<tr>
<th>Region</th>
<th>2013</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>40,605</td>
<td>51,172</td>
</tr>
<tr>
<td>North America</td>
<td>23,800</td>
<td>27,100</td>
</tr>
<tr>
<td>Western Europe</td>
<td>6,800</td>
<td>8,100</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>729</td>
<td>1,200</td>
</tr>
<tr>
<td>Asia</td>
<td>7,100</td>
<td>11,500</td>
</tr>
<tr>
<td>Middle East</td>
<td>443</td>
<td>560</td>
</tr>
<tr>
<td>Africa</td>
<td>333</td>
<td>512</td>
</tr>
<tr>
<td>Latin America</td>
<td>1,400</td>
<td>2,200</td>
</tr>
</tbody>
</table>

### LMS Market
(covering all the technical solutions available)

<table>
<thead>
<tr>
<th>Region</th>
<th>2013</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>2,550</td>
<td>3,214</td>
</tr>
<tr>
<td>North America</td>
<td>1,495</td>
<td>1,702</td>
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<tr>
<td>Western Europe</td>
<td>427</td>
<td>509</td>
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<tr>
<td>Eastern Europe</td>
<td>46</td>
<td>75</td>
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<tr>
<td>Asia</td>
<td>446</td>
<td>722</td>
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<tr>
<td>Middle East</td>
<td>28</td>
<td>35</td>
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<tr>
<td>Africa</td>
<td>21</td>
<td>32</td>
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<tr>
<td>Latin America</td>
<td>88</td>
<td>138</td>
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### Packaged Content

<table>
<thead>
<tr>
<th>Region</th>
<th>2013</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>30,153</td>
<td>38,000</td>
</tr>
<tr>
<td>North America</td>
<td>17,674</td>
<td>20,124</td>
</tr>
<tr>
<td>Western Europe</td>
<td>5,050</td>
<td>6,015</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>541</td>
<td>891</td>
</tr>
<tr>
<td>Asia</td>
<td>5,272</td>
<td>8,540</td>
</tr>
<tr>
<td>Middle East</td>
<td>329</td>
<td>416</td>
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<tr>
<td>Africa</td>
<td>247</td>
<td>380</td>
</tr>
<tr>
<td>Latin America</td>
<td>1,040</td>
<td>1,634</td>
</tr>
</tbody>
</table>

### Other services related to E-Learning activities

<table>
<thead>
<tr>
<th>Region</th>
<th>2013</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>7,902</td>
<td>9,958</td>
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<tr>
<td>North America</td>
<td>4,632</td>
<td>5,274</td>
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<tr>
<td>Western Europe</td>
<td>1,323</td>
<td>1,576</td>
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<tr>
<td>Eastern Europe</td>
<td>142</td>
<td>234</td>
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<tr>
<td>Asia</td>
<td>1,382</td>
<td>2,238</td>
</tr>
<tr>
<td>Middle East</td>
<td>86</td>
<td>109</td>
</tr>
<tr>
<td>Africa</td>
<td>65</td>
<td>100</td>
</tr>
<tr>
<td>Latin America</td>
<td>272</td>
<td>428</td>
</tr>
</tbody>
</table>
Geographical Insights

Each of the world's regions has its idiosyncrasies in terms of the factors that drive this market. In Asia, for example, Government-funded projects related to literacy development in rural areas are a major driver to the introduction of E-Learning.

In the Middle East, governmental interventions play a critical role in the dissemination of E-Learning material as educational methods. This is directed not only at students (ranging from those in elementary schools to those on postgraduate programs), but also at employees in the public sector.

In some African countries, private universities are making the difference when it comes to investments. These Institutions are willing to provide a broad offering to their students in order to help them boost their careers.

In African countries, in general, the introduction of mobile technologies and the use of social networks are major drivers to change. Nonetheless, the most important Change Agent remains the various countries’ Governments using direct interventions. Facebook and Twitter are used predominantly to support distance learning while VOIP solutions, such as Skype and Google Talk, are becoming popular as well.

The U.S. and Western Europe markets are the most mature, with the biggest instances of E-Learning adoption ranging from K-12 solutions to business-related training.
The African E-Learning Market

National governments are not the only ones playing a key role in the development of information and communication technologies (ICT) for education. Other sponsors of this trend are international authorities, such as UNESCO, which invests heavily in developing a modern framework for education in the region. Most of these initiatives are vertical, like UNESCO’s initiative to disseminate the important role women have played in African history (see: http://en.unesco.org/womeninafrica/).

However, the development of a mature E-Learning market in Africa is still restricted by the lack of proper IT infrastructures and connectivity solutions. According to 2012 estimates, Internet penetration in Africa has reached only 15.6%. Although the number of people on whom the internet has an impact is undoubtedly higher, this statistic demonstrates a significant infrastructural disparity between Africa and the other continents. Today, the fast-growing market for mobile devices looks to be the strongest trend that will support the development of E-Learning in Africa.

Over the few next years, various observers believe that we’ll see not only an increase in revenues but also the birth of local players within the E-Learning Market. The first MOOC initiative designed by Africans for Africans -- The AMI Virtual Campus is Africa’s first free online learning platform for African managers and entrepreneurs -- has already been instigated.

“Surveys indicate that the African population is willing to engage with new technology-based tools to improve their education and knowledge. However, the continent’s infrastructure proves to be a large challenge, undermining the long-term benefits of Internet and Mobile learning strategies. A new mindset is required to adopt ‘Cloud’ technologies, with African youth pushing favorably towards new learning methodologies that would allow them to catch up with their intercontinental counterparts.”

Lorenzo Torresin, Technical Director, Allos South Africa.
The people of Africa seem willing to engage with new technologically-based tools to improve their education, knowledge and skills. However, the continent's infrastructure is proving to be a major challenge and an obstacle to meeting this growing level of demand.
The Eastern European E-Learning Market

Eastern Europe has the second-highest economic growth rate in the world after Asia (17.3%). In the field of E-Learning, Russia is the country with the highest growth rate and is now considered to be a mature market. The main drivers of this growth are government investments (public sector funds) and the presence of numerous start-ups that deal with technologies for teaching purposes.

Young Russians’ interest in "Western" initiatives on distance and online learning technologies (E-Learning) is extremely strong (both Coursera and Khan Academy are currently widely adopted in Russia), but the market is still affected by public and private investors influencing interest through domestic initiatives (such as the LinguaLeo platform for English language learning, and Rosalind for bio-informatics learning).

“The Eastern European Market and, above all, the Czech and Slovak E-Learning markets are in a steady situation. The main market innovators are Corporations that buy content for their LMS. Now they are more experienced in using E-Learning software for their internal educational programs and their purchases are more sophisticated and selective. The second most important market segment is represented by learning portals serving SME and B2C, which are growing but numbers are still low. The government segment and public schools are not very active due to budget restrictions and difficulties in realization of EU projects.”

Jan Miškovský, Business Development Manager, Gopas.
2013 Revenues
$728.8 M
Annual growth rate
16.9%
Revenues by 2016
$1.2 B

The Asian E-Learning Market

Asia has the world's highest regional growth rate for E-Learning, of 17.3%.

Revenues from the sale of E-Learning reached $5.2 billion in 2011 and are expected to more than double to $11.5 billion by 2016. The vast majority of these revenues will be generated from the sales of packaged content.

Throughout the whole of Asia, Government-funded projects related to literacy development in rural areas are a major driver to the introduction of E-Learning.

Focusing specifically on the Indian Market, the E-Learning industry in India was valued at INR 18.41 trillion in 2010/2011. Increasing Internet penetration, low-cost existing coverage and rising demand are expected to help this market develop strongly in the near future. The Ken Research Group report, 'India’s E-Learning Market Outlook to FY2018 - Increasing Technology Adoption to Drive Future Growth', estimates that the market should grow at a Compound Annual Growth Rate (CAGR) of 17.4% over the period FY2013 to FY2018. The key drivers for this market are:

Increasing Government initiatives to promote E-Learning
The growing adoption of technology
The shortage of quality education, and
Convenience and affordability factors

With E-Learning being increasingly used to facilitate talent management in corporations, the demand for custom E-Learning content and technology is likely to increase. This should increase the overall growth rate for India’s E-Learning market in the future.

In addition to technology adoption, the Indian E-Learning content market is expected to grow at a CAGR of 18.4% from FY 2014 to FY 2018. The strong Government initiatives pushing student enrolments in higher education and distance learning will keep propelling market expansion at an ever-increasing rate.

The rapid adoption of mobile technology is going to play a major role in the way the entire digital experience is valued and consumed. The mobile ecosystem -- devices, carriers, app markets and so on -- has become the fastest-growing industry ever recorded.

The increasing sales numbers suggest that the growth of smartphones in India allows people greater access to the Internet via mobile devices rather than computers. Unlike a desktop PC or even a laptop, this is an education portal that people can take with them wherever they go. Hence, learning on the go will be the next thing to watch out for and platforms like Docebo, which fully supports mobile access, will continue to perform well as market leaders.

“The sources used for the construction of quantitative data of the market are Ambient Insight 2012 and ASTD.org”

Amol Shinde, Docebo Solution Consultant, India.
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2013 Revenues
$7.1B
Annual growth rate
17.3%
Revenues by 2016
$11.5B

ASIA

Highest Growth Rate

Strong Government initiatives

Integration with Talent Management

Adoption of Mobile Technology

Demand of Contents

Literacy Development

HOTTEST E-LEARNING TRENDS
The North American E-Learning Market

North America is the most mature market for E-Learning in the world. In 2011, the U.S.A. spent more on Self-Paced E-Learning than anywhere else in the world.

While the rate of growth in this market may seem low compared with other world regions (at a mere 4.4%), the revenues generated in this market are extremely high.

The entire education industry in the U.S. is growing extremely rapidly, and the predictions concerning market growth are encouragingly positive. However, the market is not without its challenges. For example, according to various sources, the K-12 and post-secondary sectors in the U.S. make high demands of suppliers.

“2013 taught us that the outcome of any learning initiative, whether blended, classroom-based, or fully online must contribute to the Organization’s KPIs and decision processes. As a result, designated learning technologies, such as Docebo, must become part of a larger spectrum of systems -- also referred to as an ecosystem -- and be able to integrate seamlessly with different IT legacy systems including ERPs, CRMs, HRIS, SIS, Video-conferencing tools and more. For the adopters, these integrations need to be simple and as much ‘plug-and-play’ as possible.

“Docebo's allowing the use of an open API framework or a pre-built Web Apps marketplace is a response to this critical market need. Meanwhile, in North America, companies like Amazon and Rackspace have become standards in the Cloud business, and are contributing to an enormous acceleration of Cloud-based services adoption.

“Thanks to the greater technological maturity trend in 2013 in the learning technologies sector, a boost in the usage rate of videos among our customer base was also evident. Ultimately, this is also consistent with the idea that learning processes need to leverage humanization, and reduce the amount of flat and impersonal PPT decks.

“Currently, we're seeing that a great number of North American Organizations are adopting learning technologies that aren't limited to internal training purposes. Both channel and external clients' training initiatives are, nowadays, a must-do.

“In this respect, I feel that MOOCs were NOT a bubble but, rather, an academic anticipation of an unsatisfied business need. The need is to be able to leverage internal knowledge, aggregate it professionally in courses and be able to market that to the appropriate segments of target audiences through an LMS with embedded E-commerce capabilities. Turning a cost-driven system like an LMS into a revenue generating system is the trend that I anticipate will have the most impact in 2014.”

Alessio Artuffo, Chief Operating Officer, Docebo NA
A report by Docebo | March 2014

2013 Revenues
$23.8B

Annual growth rate
4.4%

Cloud based authoring tools and learning platforms growth rate
9.0%

NORTH AMERICA

$27.1B
Revenues by 2016

Video
(More human)

PPT
(More impersonal)

E-LEARNING ECO SYSTEM

INTEGRATION OF ERPs CRMs HRIS SIS VIDEOCONF

TRENDS

ONLINE
CLASSROOM
BLENDED

TRAINING

E-COMMERCE PLUGIN

The LMS becomes a Revenue Generating System

CONTRIBUTE TO KPI

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The Western Europe E-Learning Market

Western Europe is the world's second largest buying region for E-Learning products and services after North America.

This is set to change in the upcoming forecasted period. Asia is predicted to outspend Western Europe in E-Learning terms by 2016.

"Despite being a mature market, 2013 was nevertheless a transitional year for E-Learning in Western Europe. We can put aside the buzz about MOOCs in higher education and all the noise about a coming shift to mobile.

“For those of us who focus on workplace learning, the interesting shift is the number of small and medium sized businesses that have started to adopt sophisticated learning technologies. With the pricing structure of products such as Docebo, suddenly smaller companies are realizing that there is a very low barrier to entry for them to have enterprise-grade capability in this area.

“The other trend we’ve observed, from the larger corporations in our client base, is a shift to outsourcing the development of E-Learning content to professional agencies rather than building in-house. We’re excited about the landscape for 2014.”

Guy McEvoy, Managing Director, Guykat
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2013 Revenues
$6.8B

Annual growth rate
5.8%

Revenues by 2016
$8.1B

Focus on Small & Medium Businesses

Outsourcing of E-Learning Content

WESTERN EUROPE
The Latin American E-Learning Market

Sam Adkins, chief research officer at Ambient Insight, has estimated that E-Learning revenues in Latin America will almost double to $2.29 billion in 2016 from $1.16 billion in 2011. That’s equivalent to an annual growth rate of 14.6%.

In general, as in 2011, Latin America is largely a “consuming” region, importing the majority of its E-Learning content and technology from outside the region. This is likely to change over the forecasted period as domestic suppliers continue to gain market share.

“Opportunities are arising for suppliers of E-Learning content, hardware, software and services. Governments are handing out laptops to students; private schools are asking their students to bring in their own computers, tablets or other devices, and corporations are rolling out E-Learning platforms for employees to improve their skills.

“Brazil will grow fastest at 21.5%, trailed by Colombia at 18.6%, Bolivia at 17.8% and Chile, at 14.4%.

“While schools are the major buyers in Brazil, corporations dominate E-Learning in Argentina, consumers do so in Chile, and governments do so in Colombia, Mexico and Venezuela.

“The forecast for the next three years is that big foreign suppliers will dominate the E-Learning business in Latin America. This includes these foreign companies buying domestic suppliers in order to gain market share. In the larger markets (Argentina, Brazil, Mexico and Venezuela) the international suppliers will find themselves slugging it out in terms of price in order to sustain sales. The alternative for the smaller suppliers will be to focus on smaller regions (such as Colombia, Chile or Bolivia) and offering tailored solutions that fit the specific customers’ needs.

“A growth in Content-as-a-Service (CaaS) and School-as-a-Service (SaaS) solutions is also expected, following the latest trends in the United States.”

Jordi Fernàndez, Business Director, Enzyme
LATIN AMERICA

$1.4B
2013 Revenues

14.6%
Annual growth rate

$2.2B
Revenues by 2016

TRENDS

1. SaaS (School as a Service)
2. CaaS (Content as a Service)

HOTTEST MARKETS

BRAZIL
SCHOOLS

ARGENTINA
CORPORATIONS

CHILE
CONSUMERS

COLOMBIA, MEXICO, VENEZUELA
GOVERNMENT

GROWTH OF E-LEARNING FOR PROVIDERS OF

E-LEARNING CONTENT
HARDWARE
SOFTWARE
SERVICES

FASTEST GROWING AREAS

COLOMBIA 18.6%
BRAZIL 21.5%
CHILE 14.4%
BOLIVIA 17.8%
The Middle Eastern E-Learning Market

The Middle Eastern E-Learning market is growing rapidly due to market makers, such as Governments, Private Schools and Corporations. This infographic relates to 2013 E-Learning revenues, the market annual growth rate and the forecasts for revenues in 2016.

Oman is the top performer in E-Learning terms for the rankings that cover the Middle East. Oman has the highest growth rate in the region at 19.6%, followed by Lebanon (16.0%), Turkey (12.9%), Kuwait (12.6%) and Qatar (11.3%). This is mainly because the Government of Oman is interested in issues relating to education and computer literacy and, consequently, is investing heavily in the sector.

For example, Sultan Qaboos University (SQU) regularly provides professional development workshops for its staff. This acquaints them with E-Learning technology from an educator’s perspective. To date, over 200 staff have attended such workshops. In addition, almost as many regular courses have some E-Learning content included.

“Middle Eastern Governments are strongly committed to promoting a Mass Digitalization process. This means that heavy investments are being made in this initiative. This is especially true for Soft Skills training. This is designed to quickly and competitively improve the workforce. Is compliance training in this region the next “big thing”? Time will tell, but lots of regulations are already coming...”

Claudio Erba, CEO & Founder, Docebo
THE STRONG EFFORT TO DIGITIZE SCHOOL LIFE IS DRIVING THE MARKET IN THIS AREA.

MIDDLE EAST

THE MARKET MAKERS IN THIS AREA ARE:

- GOVERNMENT
- PRIVATE SCHOOLS
- CORPORATE

$443M
2013 Revenues

8.2%
Annual growth rate

$560.7M
Revenues by 2016
The Game Changers

The Cloud is changing the way Organizations, Employees and Partners interact and collaborate. Using Cloud technology facilitates greater collaboration and increases Organizations’ efficiency and effectiveness.

Within the Cloud solutions universe, Software-as-a-Service (SaaS) is playing a major role. The top four cloud computing-related projects on which enterprises are currently working are: Internal Private Cloud (35%), Cloud Provider Assessments/Strategy Planning (33%), Infrastructure-as-a-Service (IaaS) (31%) and SaaS (30%).

According to Gartner, SaaS will continue to experience healthy growth through 2014 and 2015, when worldwide revenue is projected to reach around $22 billion.

While there are many options available in terms of SaaS applications for enterprises, across the entire business spectrum, Siemer currently identifies three types in particular:

- **CRM SaaS**: CRM SaaS is, by far the most requested application across enterprises worldwide. 40% of all CRM software sold in 2012 worldwide was SaaS-based.

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**Cloud-related Projects - Time Series of Top Categories**

What are your organization’s cloud computing-related projects in the next 12 months?*

- **Internet Private Cloud**: 35% in 2H’12, 40% in 1H’13
- **Cloud provider Assessments/Strategy Planning**: 14% in 2H’12, 19% in 1H’13
- **IaaS**: 19% in 2H’12, 16% in 1H’13
- **SaaS**: 31% in 2H’12, 30% in 1H’13
- **Technology Refresh**: 0% in 2H’12, 8% in 1H’13
- **Self Service**: 2% in 2H’12, 8% in 1H’13
- **PaaS**: 3% in 2H’12, 7% in 1H’13
- **Business Continuity/Disaster Recovery**: 4% in 2H’12, 6% in 1H’13
- **Virtualization**: 1% in 2H’12, 5% in 1H’13
- **VDI**: 5% in 2H’12, 5% in 1H’13

*Source: TheInfoPro Wave 5 Cloud Computing Study*
• **Enterprise Resource Planning SaaS:** The SaaS Enterprise Resource Planning (ERP) market is dominated by SAP and Oracle, which command 25% and 13% of the market respectively. However, there are other vendors operating in the field and these are expected to continue to make progress over the coming years.

• **Human Resources Management SaaS:** Human Resources Management (HRM) SaaS manages all areas of HR activity in a Cloud-computing environment within a market that is currently worth US$ 10 billion and is growing at a rate of between 18% and 22% every year.

Gartner has stated that many Enterprises are now replacing their legacy systems with SaaS-based CRM systems. Enterprise clients also report that SaaS-based CRM systems are delivering new applications that deliver complementary functions which are not possible with older, legacy CRM platforms.

Various surveys and analyses into the reasons behind this big growth in SaaS agree on at least three. SaaS brings:
- Speed of implementation
- Savings on capital expenditures
- Savings in terms of operational expenses

The SaaS model is also playing a major role in helping to increase the size of the E-Learning market. Small and Medium-sized Enterprises (SMEs), as well as large Corporations are making the adoption of a SaaS LMS a key priority. In particular, large Corporations are switching to a SaaS LMS from in-house LMS solutions or they are now using a SaaS LMS as a secondary learning system for special training purposes.

The E-Learning market can still be considered a “niche” segment within different HR macro segments. In particular, E-Learning is subjected to the influences of sales trends related to **smart connected devices** and the **Internet megatrend** (that is, the spread of the Internet in the world).

This report has already mentioned the close link that E-Learning has with the broader Educational market. In addition, there are links between E-Learning and the current growth of **digital publishing** (self-publishing and e-textbooks). However, the digital publishing market is not -- as yet -- greatly affecting the E-Learning market.

Smartphone devices are now generally considered to be valuable assets that help improve work productivity.

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**What drove your move to a SaaS Model?**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed to Implementation</td>
<td>3.90</td>
</tr>
<tr>
<td>Savings on capital expenditures</td>
<td>3.50</td>
</tr>
<tr>
<td>Savings on operational expenses</td>
<td>3.40</td>
</tr>
<tr>
<td>Better features compared with other “traditional solutions”</td>
<td>3.30</td>
</tr>
<tr>
<td>The SaaS model matches our business model better</td>
<td>3.10</td>
</tr>
<tr>
<td>Inability to get IT resources to support and maintain on-permissions apps</td>
<td>3.00</td>
</tr>
<tr>
<td>Inability to get IT resources to deploy on-permissions apps</td>
<td>2.90</td>
</tr>
<tr>
<td>SaaS applications are easier to integrate with our other applications</td>
<td>2.70</td>
</tr>
</tbody>
</table>

**Source:** Information Week Analytics SaaS Survey
Recent research has shown, for example, that smartphone owning U.S. workers are considered "more productive" on the global scale. On average, 59% of U.S. workers work more than 50 hours a week -- and they say that they frequently rely on their smartphones as productivity tools (or performance enhancing aids) during their working week.

These figures about employees’ behavior correlate with smartphone sales data.

According to IDC, the number of PCs will fall from 28.7% of the device market in 2013 to 13% in 2017. Tablets will increase from 11.8% in 2013 to 16.5% by 2017, and smartphones will increase from 59.5% to 70.5%.

Interestingly, a Forrester forecast claims that 18% of tablet sales will come from business buyers rather than these tablets being bought for personal use.

This sales data makes the Mobile Learning sector increasingly interesting -- especially so since, in the last two years, Mobile Learning has overwhelmingly been affirmed as a new:

- Popular choice as a method of learning delivery
- Business opportunity
- Strategy for human resource management

The new frontier to address is the trend towards Bring Your Own Device (BYOD). At present this is a slow trend but it’s one that is likely to be ongoing for some time.

BYOD refers to individuals taking their personal devices to workplaces. These are usually mobile devices. Increasingly, they seem to be being used to help their owners perform work activities (including formal training), both in and out of the workplace. Smartphones are the most common examples of these devices but employees often also use their tablets or laptops in the workplace.

It’s also important not to overlook the Internet megatrend, especially since E-Learning is a part of this megatrend. The Internet opens doors to new learning technologies. This is confirmed by the following data:

### Households with a computer per 100 inhabitants

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2008</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed nations</td>
<td>75.5</td>
<td>66.1</td>
<td>55.5</td>
</tr>
<tr>
<td>Developing nations</td>
<td>27.6</td>
<td>19.6</td>
<td>14.6</td>
</tr>
<tr>
<td>World</td>
<td>40.7</td>
<td>32.6</td>
<td>26.2</td>
</tr>
</tbody>
</table>

### Households with Internet access at home per 100 inhabitants

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2008</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed nations</td>
<td>77.5</td>
<td>57.7</td>
<td>44.7</td>
</tr>
<tr>
<td>Developing nations</td>
<td>28.0</td>
<td>12.5</td>
<td>8.1</td>
</tr>
<tr>
<td>World</td>
<td>41.3</td>
<td>25.0</td>
<td>18.4</td>
</tr>
</tbody>
</table>

Source: ITU (International Telecommunication Union)

As the following image illustrates, Asia is driving this trend.

### Internet Users Distribution by Region

- Asia: 44%
- Europe: 23%
- Middle East: 3%
- Oceania/Australia: 1%
- North America: 13%
- Africa: 6%
- Latin America: 10%

Source: Internet World Stats, March 2011

The internet megatrend enables people to exchange and create increasingly more information and is also an important source of knowledge building and sharing. The internet also opens the doors to new learning technologies, systems and methods.
However, when it comes specifically to E-Learning, the countries with the highest growth rates that are driving the bulk of the growth in this segment are not in Asia. According to Ambient Insight, the growth rates in nine of these countries is above 30%. This is more than four times the worldwide aggregate growth rate.

2011-2016 Top Ten Self-paced E-Learning Five-year Growth Rates by Country across all product types

![Graph showing 2011-2016 Top Ten Growth Rates by Country](image-url)

*Ambient Insight 2012*
The Corporate-Training Market

While the corporate-training market has lagged behind other education-based sectors, it continues to represent a viable investment opportunity.

Global Education Expenditure Breakdown by Sector 2012

- K-12: 50%
- Post Secondary: 34%
- Corporate & Government Learning: 8%
- Other: 8%

The Corporate-training market is among the most cyclical within the education industry. This industry experienced a low point during the period 2009 to 2010. Since 2010, employers’ total spending on training and the amount spent per employee -- the key data used to measure this sector -- have been declining. It’s also important to note that the size of this market is generally calculated to include corporate spending on facilities, salaries and overheads. In addition, there is often no distinction between in-house sourcing and outsourcing of the E-Learning resources.

In recent years, most of these assets have been drastically cut within Organizations (when considering all training services). Nevertheless, according to most observers, the corporate market related to outsourced services (net of all ancillary costs) has not stopped growing in recent years. Indeed, the percentage of outsourced services has grown to reach 42% of total expenditure.

Training budget

- OUTSOURCED: 42%
- INSOURCED: 58%

Within the training industry, the E-Learning sector has grown consistently in recent years. All its subsectors (Packaged Content, Platform, and Authoring tools) show positive annual growth. E-Learning platforms are leading the market – especially those using the “hosted” formula. In second place are content-ready courses available for immediate E-Learning delivery.

Growth rates by product

- Packaged Contents: 15%
- Custom Content Services: 10%
- Hosted Tools and Platforms: 5%
- Installed Authoring Tools: 0%
- Installed Learning Platforms: 0%

While these statistics relate to the overall market, it’s important to recognize the difference in buying patterns in different countries. This is crucial when analyzing the nature of the buyers -- for example, differentiating between buyers in private companies and educational institutions.

In non-mature markets, especially where the educational component is dominant in E-Learning (including workforce
training projects rolled out at a national level), the main area of focus is foreign language knowledge. In these markets, the most interesting recent trend is the shift from a pure consumer market, in which the majority of the content is imported from abroad (from the more mature markets), to a market where domestic suppliers have started gaining market share.

In mature markets, large companies are making the most impact despite the long buying cycle. They can be early adopters since their content and related training programs cover such subjects as Management, Compliance and IT, as well as specific industry-related courses.

According to ASTD, Organizations are becoming more demanding when it comes to training and, specifically, more innovative methods such as E-Learning. Although the number of learning hours used per employee doesn't show linear growth, in the long-term it has generally increased -- as has the average percentage of formal learning hours conducted using technology-based models. Interestingly, award-winning Organizations, which tend to be numbered among the world's top companies, are seen as the most demanding in terms of training systems. They are also much more open to embarking on E-Learning projects.

The direct training expenditure per employee in 2010 (in the U.S. Market) was, for companies with:

- Fewer than 500 employees: $1,605
- 500 to 9,999 employees: $1,102
- More than 10,000 employees: $825

When training is mostly delivered in person, firms with more than 10,000 employees spend less while reaching more, owing to the scale-based savings involved.

This data changes completely when training is delivered through E-Learning projects. Market acceptance of E-Learning has resulted in its increased use for both large and small companies. SaaS/Cloud E-Learning solutions are particularly suitable for Organizations ranging from SMEs to large institutions.

The heart of this topic is that education has positive implications for both the company and the employee. The depth of this impact strongly depends on the company's industry. It is not surprising that the technology sector, for example, places a great deal of emphasis on innovative training, and views success in this industry as being highly dependent on properly trained employees.

Simultaneously, E-Learning penetration in corporations is increasing, regardless of the company's size.

Since class-based training is more expensive, proportionately, for small and medium-sized firms, these firms are increasingly recognizing E-Learning as being convenient and cost-effective.
Top Drivers of Shift to Tech-based Learning

<table>
<thead>
<tr>
<th>General budget constraints</th>
<th>Time constraints</th>
<th>Effort to reduce travel costs</th>
<th>Reduce cost-per-employee</th>
<th>Comparable ROI</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>10%</td>
<td>20%</td>
<td>30%</td>
<td>40%</td>
</tr>
<tr>
<td>50%</td>
<td>60%</td>
<td>70%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Novations Group

General budget constraints appear to be the main drivers of the shift towards using E-Learning. Efforts to reduce travel costs and reduce the cost of training per employee point to key economic benefits arising from using E-Learning materials. However, there is another key driver: E-Learning tackles time constraints. In other words, E-Learning is not merely a solution which is attractive during an economic downturn but it is also an efficient and cost-effective solution when workers -- especially those in Organizations with a widely geographically distributed workforce -- need to be brought up-to-speed quickly on relevant knowledge and skills.

“For any franchise agency, training is the main tool through which we deliver specific technical skills that are needed to undertake a specific activity, respecting the operating procedures adopted by the entire group. In addition, at Solo Affitti, where specialization and a highly qualified network is a part of our mission, training represents an added asset, a moment of growth, and an opportunity to professionally prepare our network. People’s knowledge and skills are the most important assets for a company that wants to be both competitive, and successful. To increase and retain our “intellectual capital”, we need to invest in every single agent and ensure that every single agency of Solo Affitti’s network is recognized for its professionalism and reliability by the local communities.”

Silvia Spronelli Vicini, General Manager, Solo Affitti spa

“Through cooperation and joint development of E-Learning programs we can secure a uniform practice in all our five trusts. In addition, we now get documentation of all internally run training. E-Learning will gain importance when we strive towards more systematic forms of training and competency development for our professionals. In the long-term, E-Learning will be used to build quality in our hospital trusts”.

Hilde Rolandsen, Northern Norway Regional Health Authority (Helse Nord RHF)

Where Content is concerned it’s important to note that, within Corporations, the adoption of E-Learning tends to be consolidated in specific subject matter. Today, Compliance Training is the area where E-Learning is most widely adopted. More than 50% of training-related Compliance is now delivered online.

Online Training Modality as % of Total (2009 & 2010)

<table>
<thead>
<tr>
<th>Training Modality</th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop Application Training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT/Systems Training (e.g. Enterprise Software)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mandatory of Compliance Training</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Training Magazine
K-12 Market

K-12 and post-secondary are two key sectors of the educational market. These sectors regularly attract a great deal of analytical attention from both private companies and governmental institutions.

This report focuses on data related to E-Learning, a subsector within the education market.

One of the key characteristics of the education sector is its large base of potential users. Importantly, each of these users may start in the K-12 or post-secondary markets but they have the potential to also become future users of vocational training programs.

Their involvement in E-Learning projects at the K-12 and post-secondary stages will build a large base of users already accustomed to using such technologies in order to learn.

Figures relating to the worldwide education expenditure and expenditure on education as a percentage of GDP illustrate the size of this market and help explain the significance of the K-12 and post-secondary sectors in the education market.

IBIS Capital Market “Global E-Learning investment review”
K-12 (kindergarten through 12th grade) is the term commonly used for talking about a person’s first 13 years of schooling before entering university. It is also used by American multinationals when referring to the educational sector. The K-12 sector has been the focus of great reform in most countries in the last few years.

The economic crisis has resulted, on one hand, in the revision of current public expenditure on education and, on the other, in the definition of new strategies that build on the relationship between skill acquisition and entering the labor market. Unsurprisingly, therefore, the K-12 sector has been overrun by a wave of modernization that has led to a growing interest in the application of new technologies for educational purposes.

The governmental point of view on the relation between K-12 and technology is summarized in this statement from the European Commission:

“Today, new technologies offer unprecedented opportunities to make learning more effective, inclusive and engaging. Digital technologies can improve effectiveness of resources through economies of scale, expanding access to a wider number of people (e.g. through MOOCs28 and other Open Educational Resources (OER)) at lower costs or allowing teachers to focus on what they do best by automating or offloading more routine tasks. ICT can be used to foster more creative and innovative methods of learning (including personalized and collaborative learning), and it has the potential to facilitate collaboration, exchange and access to learning resources.” (SOURCE: EDUCATION AND TRAINING MONITOR 2013)

The K-12 sector includes public education bodies as well as the primary and secondary private education sector (both non-profit and for-profit). Consequently, the digital technologies market for the K-12 sector needs to include products and solutions for digital publishing, such as textbooks, tools for skills assessment and education apps, as well as tools for teachers.

Global Education expenditure has grown consistently in recent years and the K-12 sector plays a big role in this growth.
Focusing purely on distance education and, thus, ignoring the sub-sector of face-to-face education, the K-12 segment continues to represent the largest slice of the market.

Pearson, one of the biggest global players in the education sector, has put education-technology solutions at the center of its growth model. Subsequently, digital revenues, as a percentage of the company’s overall revenues, have grown to 33% in 2011 from 20% in 2006 (SOURCE: IBIS CAPITAL).

In addition, GSV Advisors has offered an interesting breakdown of E-Learning sub-sectors by growth rate and projected market size.

Gamification tools and mobile devices play a major role as market drivers for the K-12 sector. These Gamification tools are particularly appreciated by K-12 teachers and stakeholders, notably because of the mix of skills that can be empowered by “playing” a single or social serious game. Many new and established companies are taking advantage of the opportunity to move into this expanding market which has an estimated growth rate of 37% CAGR by 2020.

According to Tech Crunch, in terms of youth and education App downloads, the time that people spend on mobile apps has already surpassed the time spent on web browsing. Within the K-12 sector, the most used mobile device is the tablet (including both cheap and high quality tablets).

All the players in this market are now rethinking their online offerings in order to be able to offer more on these devices.

It’s also important to note that, in the K-12 sector, education technology plays a strategic role in the move from print textbooks to e-books. Due to the increased price of textbook, schools are quickly adopting different solutions. This means not only creating e-books (both paid-for and downloaded), but also providing easy access to e-books (renting without ownership).

However, the anticipated boom of e-book sales didn’t happen in the past year. The newest trend is the scouting for an environment that can host e-books, as a sort of Learning Management System with a library of books.
The Post-secondary Market

In their tenth annual survey on the state of U.S-based online higher education, The Babson Survey Research Group reported that 6.7 million students enrolled in at least one online course during the fall 2011 term. That is nearly one-third of all students currently enrolled in some sort of higher education in the U.S.A.

So, students are enrolling in online courses.

According to recent Eurostat Data, the number of individuals in 28 EU countries who used the Internet to seek information with the purpose of learning, remained the same between 2009 and 2012. Nonetheless, there are few countries, such as Finland, where the use of the Internet for purpose of learning has grown significantly over this period.

Individuals using the Internet for seeking information with the purpose of learning
% of individuals aged 16 to 74

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU (28 Countries)</td>
<td>23</td>
<td>27</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>EU (27 Countries)</td>
<td>23</td>
<td>27</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Euro Area (Changing composition)</td>
<td>25</td>
<td>29</td>
<td>34</td>
<td>34</td>
</tr>
</tbody>
</table>

SOURCE: EUROSAT DATA
The European education and training system is starting to embed digital technologies in its training methodologies, but full acceptance of the use of these technologies in learning still appears to be far off. Governmental surveys show that 70% of teachers in the EU recognize the importance of training in ICT-supported pedagogies, but their role in the development of a fully digitalized school is still weak. According to the European Commission, only around 30% of students in the EU are in digitally supported schools and as many as 35% of students are in schools which exhibit both weak policy and weak support for digital technology.

A different scenario seems set to emerge in the UK. The UK Government and other institutions are playing a big role in the creation of a cultural background that is encouraging rapid growth in the market for digital technology in education. The UK Government's Online Learning Task Force (which includes experts from Microsoft, Apple and Pearson) recommended an investment of £100 million in online education in order to help the nation build its brand, develop better online educational resources and become a major international player in the distance learning market.

In Asia, India is putting a lot of effort into becoming a mature market for higher distance education. Economic concerns and the current high cost of tuition fees are at the heart of India's keenness to become the most relevant player in the Asian E-Learning market for higher education.

In addition, in the Asian region, China is taking steps to create good quality distance education programs. This is chiefly due to China experiencing increased demand for highly trained members of its workforce, in order to compete effectively in global markets.
Venture Capital in Education

With the inflow of an estimated $6 billion of venture capital over the past five years, E-Learning is being driven not only by startup dot-com entrepreneurs but also by big corporations, for-profit spin-off ventures, as well as big and small universities.

2012 saw a boom in E-Learning technology investment. One of the largest ever investments in this sector took place in September that year when Desire2Learn, a developer of an LMS, received $80 million.

According to Ambient Insight, since 2012, the investment in educational technology (“edtech”) has taken two different routes: investment in K-12 and pre-K-12 start-ups, and investment in corporate-oriented businesses.

Many universities entered the E-Learning marketplace using non-profit models, leveraging their knowledge of the traditional classroom and applying this to the E-Learning environment. In particular, the MOOC market has grown vigorously.

Not only is there a proliferation of courses, there is now an expansion of MOOC platform providers and tools. Today, there are more than 2 billion potential learners around the world. More than 70% of these are, reportedly, unable to afford a college degree. Yet, today, possessing a college degree appears to be more important than ever. McKinsey believes that college-educated workers will have a three-fold advantage in salaries and opportunities by 2020.

According to Josh Bersin, the Founder and Principal at Bersin by Deloitte: “While this is still a young market, the demand is there and we expect it to grow exponentially in the coming years.” This market contains different business models, encompassing a wide spectrum of approaches. For example, there are The Disruptive Businesses (free-open access distribution) and the Education Giants (paid distribution) models.

According to Forbes, there are several “disruptive” players in the education market: Coursera, Udacity, Udemy and so on. All these players are running MOOCs initiatives. Some are completely free, while others charge basic fees to students.

edX is a joint venture by MIT and Harvard to offer their courses online to a worldwide audience, for free. The courses are not for credit, but the plan is to eventually award certificates of completion to students. The site launched in the fall of 2012.

Udacity is an online education platform founded by Sebastian Thrun, David Stavens, and Mike Sokolsky. The site currently offers 14 courses focusing on computer science, math, entrepreneurship and more. Over 100,000 students have enrolled on their courses globally.

Coursera is a free online education platform that features over 200 courses from 33 universities worldwide. The site was launched in April 2012 by Andrew Ng and Daphne Koller, who were Stanford University computer science professors.

Knewton is an adaptive learning company that provides personalized web-based instructions on a variety of subjects. It was founded in 2008 by Jose Ferreira.

Udemy is an online learning platform where experts teach courses on a variety of subjects. Some courses are free, while others are fee-based, with prices ranging from $5 to $250.

Khan Academy provides free online education with a wide range of courses. Launched in 2006 by the educator, Salman Khan, the site now contains over 3,400 lectures.

MITx will offer a portfolio of MIT courses for free to a virtual community of learners around the world.

2U is an education-based tech-company that partners with universities to offer online degrees.

Apple launched iTunes U in 2007. The app offers free lectures from universities, museums, libraries and other educational institutions. There are currently more than 75,000 files available for download.

Code Academy: A free online site offering lessons on how to code.

MOOCs

They will soon need a Sales Channel to penetrate the B2B market. A SaaS LMS is the key.

$103M RAISED BY UDEMY

$65M RAISED BY COURSERA

$16M RAISED BY UDEMY
The revenues from the big players in the educational field have also grown significantly:

<table>
<thead>
<tr>
<th>Company</th>
<th>2011 FY ($B)</th>
<th>2004-2011 CAGR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson</td>
<td>6.9</td>
<td>19.6%</td>
</tr>
<tr>
<td>Apollo Group INC.</td>
<td>4.7</td>
<td>14.7%</td>
</tr>
<tr>
<td>Benesse</td>
<td>3.7</td>
<td>8.9%</td>
</tr>
<tr>
<td>The Washingtonpost Company</td>
<td>2.5</td>
<td>11.7%</td>
</tr>
<tr>
<td>Mc Graw Hill</td>
<td>2.3</td>
<td>(0.6%)</td>
</tr>
<tr>
<td>Career Education</td>
<td>1.9</td>
<td>3.6%</td>
</tr>
<tr>
<td>Cengage Learning</td>
<td>1.9</td>
<td>3.4%</td>
</tr>
<tr>
<td>K 12</td>
<td>0.5</td>
<td>32.2%</td>
</tr>
<tr>
<td>Blackboard</td>
<td>0.5</td>
<td>25.2%</td>
</tr>
<tr>
<td>Capella University</td>
<td>0.4</td>
<td>20.3%</td>
</tr>
<tr>
<td>Scholastic</td>
<td>0.2</td>
<td>(6.5%)</td>
</tr>
</tbody>
</table>

Within this wide spectrum, there are a number of local players emerging. According to IBIS Capital, there are over 3000 E-Learning companies in Europe alone. Disruptive businesses, education giants and local players are at the center of mergers and acquisitions, as well as transactions and fundraising.
The Corporate Learning market is also growing and, as such, it is attracting big investments from all over the world. The U.S. is the most active global fundraiser for Education. Europe only accounts for 6% of total fundraising volume. Some examples of deals related to the E-Learning sector are:

**E-Learning top ten M&A Transactions**

Since 2011

<table>
<thead>
<tr>
<th>Target</th>
<th>Acquirer</th>
<th>Target subsector</th>
<th>Transaction Value £m</th>
</tr>
</thead>
<tbody>
<tr>
<td>SuccessFactors</td>
<td>SAP</td>
<td>Management System</td>
<td>3,764</td>
</tr>
<tr>
<td>Taleo</td>
<td>Oracle</td>
<td>Management System</td>
<td>1,921</td>
</tr>
<tr>
<td>Blackboard</td>
<td>Providence</td>
<td>Management System</td>
<td>1,852</td>
</tr>
<tr>
<td>SunGard Higher Education</td>
<td>Datatel</td>
<td>Management System</td>
<td>1,775</td>
</tr>
<tr>
<td>Kenexa</td>
<td>IBM</td>
<td>Management System</td>
<td>1,397</td>
</tr>
<tr>
<td>EmbanetCompass</td>
<td>Pearson</td>
<td>Management System</td>
<td>650</td>
</tr>
<tr>
<td>Renaissance Learning</td>
<td>Permira</td>
<td>Management System</td>
<td>485</td>
</tr>
<tr>
<td>Archipelago Learning</td>
<td>PLATO Learning</td>
<td>Management System</td>
<td>366</td>
</tr>
<tr>
<td>Deltak edu</td>
<td>John Wiley &amp; Sons</td>
<td>Management System</td>
<td>220</td>
</tr>
<tr>
<td>Certiport</td>
<td>Pearson</td>
<td>Management System</td>
<td>140</td>
</tr>
</tbody>
</table>

**Recent E-Learning Fundraising Across Europe & the US**

<table>
<thead>
<tr>
<th>Target</th>
<th>Investor</th>
<th>Target subsector</th>
<th>Transaction Value $m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Udemy</td>
<td>Insight Venture Partner, Learn Capital Venture Partners, Lightbank, MHS Capital Partners</td>
<td>Distribution</td>
<td>16.0</td>
</tr>
<tr>
<td>Memrise</td>
<td>NA</td>
<td>Distribution</td>
<td>6.2</td>
</tr>
<tr>
<td>Udacity</td>
<td>Charles River Ventures, Andreessen Horowitz</td>
<td>Distribution</td>
<td>21.0</td>
</tr>
<tr>
<td>Lingualeo</td>
<td>Runa Capital</td>
<td>Distribution</td>
<td>3.2</td>
</tr>
<tr>
<td>Desire2Learn</td>
<td>NEA, OMERS Ventures, Management System</td>
<td>Management System</td>
<td>80.0</td>
</tr>
<tr>
<td>Grokkit</td>
<td>Atlas Venture, Benchmark Capital, Integral Capital Partners, GSV</td>
<td>Distribution</td>
<td>44.7</td>
</tr>
<tr>
<td>Docebo</td>
<td>Principia</td>
<td>Management System</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Investing in the Distribution sector appears to be highly attractive at present, as investment returns from the Management Systems and Content sectors fall behind. However, thanks to the SaaS business model, the LMS Market has been growing fast so far -- and should continue to grow.
Two case studies

Here are two case studies about the investments of two giant publishers in E-Learning.

**PEARSON**

According to IBIS Capital, since 2007, Pearson has acquired 15 companies. Eleven of them were acquired after 2010 and all of them were digital-based / E-Learning businesses.

Since 2006, Pearson has invested some £2.5 billion in acquisitions. The company has invested across the whole E-Learning environment, including Content, LMS and Analytics.

**eCollege**, a Pearson company that delivers effective interactive learning experiences to students around the world, powers LearningStudio and OpenClass.

LearningStudio is a Cloud-based SaaS LMS that is intended to help institutions achieve their financial and organizational goals. Pearson LearningStudio offers service and support to institutions. In particular, that support includes strategic guidance to improve the quality and efficiency of customers' educational programs. It helps users to develop custom-built solutions involving content, technology and services.

OpenClass is a dynamic learning environment that helps educators bring social learning and experiences to their students. It's open to everyone and free to use. It has applications in Higher Education (especially for Academic Executives) and in Schools, as well as in the Private Sector (for Workforce Education as well as Professional development).

In addition, Pearson runs a number of strategic alliances. These include Cisco Press, a publishing alliance between Cisco Systems and Pearson; IBM press, the official publisher for IBM professionals and academia, and the New York Institute of Finance and Pearson collaborate to serve the financial education sector.

Pearson’s Acquisition Roadmap

IBIS Capital Market “Global E-Learning investment review”
MACMILLAN

Macmillan Science and Education and Macmillan Publishers are divisions of the Holtzbrinck Publishing Group, a family-owned company based in Germany and one of the world’s leading media companies. Holtzbrinck has three global divisions:

- Macmillan Publishers
- Macmillan Science and Education
- Holtzbrinck Digital, Information and Services


Macmillan launched Digital Education in 2012 to capture opportunities in the consumer online education markets. Digital Education is a risk-tolerant strategic investor with a pragmatic approach to co-investment. It invests (via equity) in Business to Consumer (BtoC) online education products: Veduca and Easyaula (Brazil), Maths Doctor (UK), Tutotira, English.

Digital Science provides software and information to support researchers and research administrators in their everyday work, with the ultimate aim of making science more productive through the use of technology.

It also invests in promising start-ups.

Macmillan Education publishes English Language teaching (ELT) -- including via E-Learning under the macmillanenglishcampus name. It also publishes school curriculum, Spanish curriculum, digital and online materials to suit the needs of classrooms around the world.
Appendix One

How SaaS growth and adoption is reshaping strategic and organizational models

The Cloud is changing the way Organizations, employees and partners interact and collaborate. Using Cloud technology facilitates greater collaboration and increases Organizations’ efficiency and effectiveness.

Within the Cloud solutions universe, Software-as-a-Service (SaaS) is playing a major role. The top four cloud computing-related projects on which enterprises are currently working are: Internal Private Cloud (35%), Cloud Provider Assessments/Strategy Planning (33%), Infrastructure-as-a-Service (IaaS) (31%) and SaaS (30%).

According to Gartner, SaaS will continue to experience healthy growth through 2014 and 2015, when worldwide revenues are projected to reach around $22 billion.

The Summer 2013 SaaS Industry Report from Siemer & Associates shows that some 60% of the global market volume is currently in the US. The main reason for this is the lack of cultural barriers in that market. Other nations are significantly lagging in terms of adoption, mainly because of: fear of third-party control, security concern, and a lack of appropriate Internet bandwidth.
While there are many options available in terms of SaaS applications for enterprises, across the entire business spectrum, Siemer currently identifies three types in particular:

- **CRM SaaS:** CRM SaaS is, by far, the most requested application across enterprises worldwide. 40% of all CRM software sold in 2012 worldwide was SaaS-based.

- **Enterprise Resource Planning SaaS:** The SaaS Enterprise Resource Planning (ERP) market is dominated by SAP and Oracle, which command 25% and 13% of the market respectively. However, there are other vendors operating in the field and these are expected to continue to make progress over the coming years.

- **Human Resources Management SaaS:** Human Resources Management (HRM) SaaS manages all areas of HR activity in a Cloud-computing environment within a market that is currently worth US$ 10 billion and is growing at a rate of between 18% and 22% every year.

Gartner has stated that many Enterprises are now replacing their legacy systems with SaaS-based CRM systems. Enterprise clients also report that SaaS-based CRM systems are delivering new applications that deliver complementary functions which are not possible with older, legacy CRM platforms.
The biggest users of the SaaS model are technology companies, followed by financial services and utilities. Various surveys and analyses into the reasons behind this big growth in SaaS agree on at least three. SaaS brings:

- Speed of implementation
- Savings on capital expenditures
- Savings in terms of operational expense

The SaaS model is also playing a major role in helping to increase the size of the E-Learning market. Small and Medium-sized Enterprises (SMEs), as well as large Corporations are making the adoption of a SaaS LMS a key priority. In particular, large Corporations are switching to a SaaS LMS from in-house LMS solutions or they are now using a SaaS LMS as a secondary learning system for special training purposes.

**What drove your move to a SaaS Model?**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed to Implementation</td>
<td>3.90</td>
</tr>
<tr>
<td>Savings on capital expenditures</td>
<td>3.50</td>
</tr>
<tr>
<td>Savings on operational expenses</td>
<td>3.40</td>
</tr>
<tr>
<td>Better features compared with other “traditional solutions”</td>
<td>3.30</td>
</tr>
<tr>
<td>The SaaS model matches our business model better</td>
<td>3.10</td>
</tr>
<tr>
<td>Inability to get IT resources to support and maintain on-premises apps</td>
<td>3.00</td>
</tr>
<tr>
<td>Inability to get IT resources to deploy on-premises apps</td>
<td>2.90</td>
</tr>
<tr>
<td>SaaS applications are easier to integrate with our other applications</td>
<td>2.70</td>
</tr>
</tbody>
</table>

Source: Information Week Analytics SaaS Survey
Appendix Two

Research Method and Credits

This research was developed with information gathered through browsing websites and blogs related to E-Learning, HR software and talent management, along with an analysis of particular reports specific to the industry, notably by Ambient Insight, GSV, IBIS Capital and Tower Watson.

The data was analyzed and further strengthened by the knowledge garnered in the ten years of experience that Docebo has had in the E-Learning market. Docebo also asked its worldwide network of partners to comment on the data that was relevant to their own regions.

You can find all the sources -- errors and omissions excepted -- at the end of the document. Note: we apologize to any authors whose names might be missing from this list, since it has been hard to keep track of all the resources accessed on this lengthy journey of data collection.

The editor of this paper, Valentina Piccioli, Docebo E-Learning analyst, will be delighted to discuss, review, quote or help you in moving forward any additional analysis related to E-Learning.

Sources:
- GSV, Education Factbook 2012
- IBIS Capital, E-Learning lesson for the future
- Tower Watson, Global Workforce study 2012
- Accenture, Technology Vision 2014
- The EvoLLLution, Lifelong Education and Labor Market needs
- Georgetown University, Projections of Jobs and Education requirements through 2018

and:
- http://www.informationweek.com/whitepaper/
- http://www.cio.com/article/109706/The_Truth_About_Software_as_a_Service_SaaS
A report by Docebo | March 2014

Company Profile

Docebo is a disruptive Cloud E-Learning solutions provider that is revolutionizing the online training market with its Software as a Service (SaaS) Learning Management System (LMS). Established in 2005, Docebo has over 28,000 installations worldwide, and is sold in more than 65 countries around the world. The Docebo LMS offers an enterprise solution for mid-sized to large organizations. Customers benefit from Docebo solutions thanks to a scalable pricing model, a third party integration (via API), and reliable service available 24/7 to further enhance the user experience.

Docebo offers

SaaS
As a true SaaS (Software as a service) Cloud-based platform, Docebo is not just an E-Learning tool but is especially designed to be delivered in SaaS as an ecosystem of features and modules that can be adapted to any requirement. Docebo offers a Cloud LMS solution with content on 51 servers worldwide so that organizations of all sizes can adopt a fully web-based approach.

Flexible pricing plans
Docebo LMS comes with a convenient monthly pricing plan tailored for med-large enterprises and making it a cost-effective investment that leverages the benefits and flexibility of a pure SaaS.

Optimal user experience
With its user-friendly HTML5 user interface Docebo provides an optimal user experience on both desktop and mobile learning scenarios.

Testing, tracking and reporting
Advanced test engine and course tracking features, combined with a rich offer of default and custom reports enable you to easily monitor and track performance. Smart reports unify data from different sources, helping you to measure the effectiveness of learning. Unlike other LMS solutions, users have the flexibility to download everything.

Certificates management
Docebo gives the possibility to create, print and digitally sign training certificates. Release and expiration policies can be configured according to the specific needs of your organization.

App Marketplace
An extensive web APP Marketplace unique to Docebo for advanced customization and extended projects, the marketplace includes: Social Networks (Facebook, Linkedin, Twitter), Videoconference systems (Adobe Connect, BigBlueButton, Cisco Webex, GoToMeeting, OnSync, etc…), CMS websites (Joomla, Wordpress and Drupal), Salesforce, Google Analytics and Google Apps.

Course Marketplace
Docebo has a third party Course Marketplace - an ever-growing library of online courses from the best international content providers - with more than 400 courses available in different languages accessible with a single click. Topics covered: Compliance, Health and Safety, Language, Soft Skills, Technology.