Global e-Learning Investment Review
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Authoring tools: A software package used to create and package e-Learning content

Adult education: Self-learning and personal development

BEST companies are chosen by the American Society for Training and Development (ASTD) and tend to invest more in L&D

Business Processing Outsourcing (BPO): Business outsource service companies

Chief Academic Officer (CAO): The senior academic administrator assisting in the strategy of the educational institution

Chief Learning Officer (CLO): The highest-ranking corporate officer for talent or learning management within a corporation or agency

Content Management System (CMS): Software application that streamlines the process of designing, testing, approving, posting and publishing digital content

Corporate training: Professional training and learning and development programmes for firms

Electronic Performance Support System (EPSS): A programme that provides on-demand assistance for discrete tasks. An example of an EPSS is the built-in help functions of many software programmes

Face-to-Face (F2F): Term used to describe the traditional classroom environment

Higher Education (HE): Formal education post 18 years of age

Immersive Learning Simulations (ILS): A platform that allows an immersive learning experience in a simulated environment

Instructor-Led Training (ILT): Usually refers to traditional classroom training, in which an instructor teaches a class of students. The term is used synonymously with on-site training and classroom training

K-12: Formal education period up to 18 years of age

Learning Management System (LMS): A web-based education system that models traditional education in a virtual environment

Learning Content Management System (LCMS): A software application that allows trainers and training directors to manage both the administrative and content-related functions of training. An LCMS combines the course management capabilities of an LMS (learning management system) with the content creation and storage capabilities of a CMS (content management system)

Learning Management System (LMS): Software that automates the administration of learning/course delivery events. The LMS registers users, tracks courses in a catalogue, records data from learners and provides management reports. An LMS is typically designed to handle courses by multiple publishers and providers. It usually does not include its own authoring capabilities, instead, it focuses on managing courses created by a variety of other sources

m-Education: Any form of e-Learning delivered to a mobile device, e.g. via smartphones or tablets

National Assessment of Educational Progress (NAEP): Largest US representative and continuing assessment of what America's students know and can do in various subject areas

Open Education Resources (OER): Freely accessible, openly formatted and openly licensed documents and media that are useful for teaching, learning, education, assessment and research purposes

Personal Learning Environment (PLE): Systems that enable learners to take control and manage their own learning

Programme for International Student Assessment (PISA): International study that was launched by the OECD in 1997. It aims to evaluate education systems worldwide every three years by assessing 15-year-olds’ competencies in the key subjects: reading, mathematics and science

Purchasing Power Parity (PPP): An economic theory that estimates the amount of adjustment needed on the exchange rate between countries in order for the exchange to be equivalent to each currency's purchasing power

Software Development Kit (SDK): Software development tools that allows for the creation of applications for a certain software package, software framework, video game console or similar platform

Reusable Learning Object (RLO): A specific element of content that can be reused in multiple learning programmes in order to reduce the cost of content creation

Shareable Content Object Reference Model (SCORM): A set of standards and specifications for e-Learning training materials

Social Learning Management System (SLMS): An LMS designed for collaborative use

Tin Can API: An e-learning software specification that allows learning content and learning systems to speak to each other in a manner that records and tracks all types of learning experiences

Talent Management System (TMS): An integrated software suite that manages performance management, learning and development and other talent capital related tasks

Virtual Learning Environment (VLE): A web-based education system that models traditional education in a virtual environment

Web-based Training (WBT): Any instructional event that can be accessed via the Internet or the Web

G500: Top 500 organisations from the global Fortune 500 companies that have submitted data for this report
# Table of Contents

<table>
<thead>
<tr>
<th>Page Range</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 – 10</td>
<td>Introduction to e-Learning</td>
</tr>
<tr>
<td>11 – 29</td>
<td>Education Trends and the Adoption of Technology</td>
</tr>
</tbody>
</table>
| 30 – 57    | e-Learning Subsectors  
  – Content  
  – Management Systems  
  – Distribution |
| 58 – 61    | Pearson Case Study: a Leader in Education |
| 62 – 68    | Valuation and M&A Activity |
| 69 – 71    | Buyer Landscape and Strategic Rationale |
| 72 – 74    | IBIS Capital’s Lessons for the Future |
| 75 – 100   | Appendix |
| 101        | About IBIS Capital |
Providing an Industry Overview
The e-Learning market broadly splits between the educational market and the market for corporate training. Although there are a number of similar themes we examine the dynamics of both sectors.

Explaining Key Market Factors
The e-Learning market is driven by a range of factors from both the supply and demand side. Technology and infrastructure are key factors for the supply side whilst the relationship between consumer, government and corporate are driving demand.

Understanding Market Trends
The pace of change will dictate the emerging structure of the e-Learning landscape. The underlying trends affecting government spending, technology and consumer behaviour are all important factors that we review.

Insights into e-Learning Innovation
The education market is now ripe for innovation. There are a whole range of new technologies and business models. Within the different e-Learning subsectors, we review these developments and how they are affecting the industry.

M&A and Valuations
The market has a healthy ecosystem of large strategic players, expectant capital markets and venture capital investors. We review the current M&A and investment activity.

IBIS View of the Future
We believe there is a paradigm shift occurring in the e-Learning market which will radically change the future of how education is resourced, taught and consumed. We provide our thoughts on how this might turn out.
Introduction to e-Learning
The e-Learning Opportunity

1. **Healthy Ecosystem**
   - 1.4bn students out of 7.1bn world population
   - $4,435bn global education expenditure
   - 7.4% p.a. growth in overall education spend through to 2017
   - 23.0% p.a. growth in e-Learning over same period...
   - ...which is a currently a $91bn global market

2. **Need for Change**
   - Education costs have risen 84.0% since 2000...
   - ...which is 46.6% higher than the rise in the CPI
   - 0.7bn adults are expected to lack basic literacy skills by 2015
   - >$1.0tn is the current total US student loan debt

3. **Technology to Prosper**
   - 870.0% growth to >2.4bn internet users since 2000
   - m-Education(1) is set to grow at a 30.8% CAGR to 2020
   - US student tablet ownership grew at 257.1% last year
   - 65.5% of Chief Academic Officers believe that online teaching is critical to long-term strategy
   - 41.7% of the G500 use technology adapted training

4. **New Companies**
   - c.3,000 e-Learning companies in Europe alone
   - 173 companies raised funds in the past 2 years, of which 66% were US-based companies
   - 100 of the 140 e-Learning companies in India were founded in the last 3 years

5. **Government**
   - Government budgets under pressure
   - Blended instruction has proved more effective than purely online instruction or traditional face-to-face teaching
   - The Tin Can Project is setting technical industry standards for e-Learning software

6. **Fundraising and Consolidation**
   - $8.5bn of M&A deals in 2012
   - The management systems and distribution subsectors each accounted for 46% of M&A deal volume in 2012
   - $1.0bn raised through 94 fundraisings in 2012
   - 71% of fundraisings were in the e-Learning distribution space in 2012
   - Strong Appetite from strategic, private equity and venture capital firms

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(1) m-Education includes all internet connected devices, such as smartphones or tablets
2011 Education Snapshot

Global Education Expenditure by Geography and Subsector

Key Points
- In 2011, global education expenditure was $4,109.5bn
- K-12 education represents a total of 58.6% of global education expenditure and is a key focus for hybrid learning environments
- North America and Europe are the major markets in all subsectors

Source: McKinsey
Note: K-12 is used as a synonym for formal education from kindergarten to 18 years of age
Growing Education Market Driven by Growth of e-Learning

Global Education Expenditure Forecast by Subsectors

- For profit
- Test preparation / tutoring market
- Global language learning
- Serious gaming
- Child care
- Social learning / communities
- Corporate & government learning
- Post secondary
- K-12

2012P: 4.435.3
2015P: 5.482.0
2017P: 6.333.8

($bn)

2012-15 CAGR: 7.3%
2015-17 CAGR: 7.5%

Key Points

- Global education expenditure market is projected to grow at 7.4% until 2017
- e-Learning expenditure projected to grow at 23.0% p.a. to $255.5bn from 2012P-2017P which comprises:
  - K-12 CAGR of 33.0%
  - Higher Education CAGR of 25.0%
  - Corporate market CAGR of 8.0%
- The global language learning market is set to grow at 20.0% p.a. to $247.5bn in 2017, with English language learning growing at 25.0% p.a.

Fast Growing Segments (2012–2017 CAGR)

- e-Learning: 23.0%
- Social/communities: 41.1%
- Serious gaming: 29.9%
- Language: 20.0%

Source: IBIS Capital estimates, GSV education report, Ambient Insight research
e-Learning is Transforming Each Stage of the Education Sector

Key Points

- e-Learning affects the entire Education sector and enhances methods of creating, storing, distributing, producing learning content

- The audience for e-Learning includes: pre-K-12, K-12, higher education, further/adult/social education, professional education and corporate training

- Multiple emerging business models within the online sector ranging from free access to traditional subscription models

- The penetration of mobile devices is significantly increasing the number of access points to e-Learning

Content

- Content creation
- Content publishing via:
  - Digital textbooks
  - Video

Management Systems

- Fully integrated software platforms
- Library of teaching resources
- Networks and online interaction facilities
- Testing, self-assessment and certification

Distribution (e-Learning Providers)

- Online
- m-Education
- Massive Online Open Course (MOOC)
- Immersive Learning
- Serious Gaming / Gamification
- e-Books & Rentals
Education Trends and the Adoption of Technology
Government Expenditure is Vital to Education

Key Points

- Targeted government spending is an important stimulus for enhancing the skills within the labour force. In turn, investment in skills needed to drive economic prosperity.

- The US education system is correlated to the overall health of the economy. Economic downturns result in budget cuts and layoffs within the education sector. Shift of expenditure to the private sector driving tuition fees higher.

- State of the labour market impacts demand for vocational training:
  - changes to the economic base result in changes to the skills requirement
  - unemployed seek to re-train in order to return to the labour market

- Corporate investment in the workforce to enhance skills provides an ongoing vested interest to retain and develop employee skills further.
The US population is projected to grow at c.1.0% which is relatively low compared to the emerging economies.

Population growth is a leading indicator for pre-primary school enrolments which will eventually develop into secondary and higher education enrolments.

Globally, rapid population growth in the past 5 years has caused pre-primary enrolments to grow at 16% worldwide, this is expected to be 20% with new growth rates.

The global population is expected to be 9.2bn by 2050 and as countries develop, improvements in medical conditions increase the birth rate.

Lack of financial aid, disabilities and poor student engagement are main causes of for high student dropout rates.


(1) AM Mindpower Solutions
(2) United Nations Population Division (UNPD)
Key Points

- Tuition costs are a major cost in all countries
- Richer economies spend relatively more on education
- The cost for education has been rising faster than inflation for decades (See graph to the left, which has been indexed at 100 at 1972)
- The total student loan debt stands at over $1tn\(^{(2)}\) and is increasing at a faster rate
- US private not for-profits and public university courses are a good proxy to show:
  - the rapid increase of prices for a standard bachelor's degree
  - the closing of the gap between state funded and not for-profit courses by c.9.1% from 1972 to 2012 as the cost for public courses are increasing the fastest


\(^{(1)}\) These costs include living and food costs

\(^{(2)}\) Consumer Financial Protection Bureau's student loan ombudsman
Not Getting What You’re Paying For

Key Points

- While US spending on education has been increasing over time, reading and math scores in the US have remained relatively stagnant.

- The relationship between education expenditure or GDP per capita and educational performance seems to be weak.

- Shanghai-China and Korea were both top math performers in 2009 and had a GDP per capita below the OECD average.

- The correlation between GDP per capita and education performance only predicts 6% of the differences in student performance across countries, while 94% reflects the fact that countries of similar prosperity can produce significantly different educational results.

“We spend a lot on education and do not see the results”

Joel Klein - CEO of Amplify, News Corp’s education business and former Chancellor of the NYC Department of Education


(1) Excludes community services, private school programmes, adult education and other programmes not allocable to expenditures per student at public schools.

(2) Expenditure values are derived based on constant 2009-2010 dollars based on the CPI.

(3) Refers to direct public and private expenditure by educational institutions in relation to the number of full-time equivalent students enrolled. Public subsidies for students’ living expenses outside educational institutions have been excluded. Expenditure values have been derived in equivalent USD converted using PPPs for GDP.

(4) Refers to 2008 data.

US per Student Spending vs. Student Performance, 1971–2009
Total (public & private) expenditure per pupil in public elementary and secondary schools

Global Annual Total Secondary Education Expenditure per Student, 2009

Global Average Math Scores for 15 Year-Old Students, 2009

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Global Average Math Scores for 15 Year-Old Students, 2009

Global Average Math Scores for 15 Year-Old Students, 2009
The Technology Environment Allows e-Learning to Flourish

**Devices**
- Mobile Learning
  - iPhones and Smartphones
- Handheld Learning
  - DS and PSP
- Portable Learning
  - Net books, laptops and e-readers

**e-Learning**
- Drills
- Problem Solving Exercises
- Tuition/Courses
- Scenarios
- Instructional Games & Simulations

**e-Publishing**
- Webcasts
- Podcasts
- e-Bulletin
- e-Reference documents

**Learning resources**
- e-Publishing
  - iBooks
- Kindle and iPads
  - iPhone and Android
- Learning 2.0
  - Internet
  - Blogs
  - Micro Blogging
  - Wikis
  - Social Networking

**e-Learning Tools**
- ILS (Immersive Learning Simulation)
- Apps
- Virtual Classrooms
- VLE (Virtual Learning Environments)
- PLE (Personal Learning Environments)
- RLO (Reusable Learning Object)
- e-Assessment Performance Management
- e-Portfolio
- LMS (Learning Management System)
- LCMS (Learning Content Management System)
- Authoring and Development Tools
- EPSS (Online help)

Source: IBIS Capital, Learning Light
e-Learning is Strategically Critical to Higher Education

Key Points

- 65.5% of Chief Academic Officers (CAO) believe that online education is critical to the long-term strategy of the institution.

- Over the 9 year period (2002-2011), 16.7% of CAOs who held “neutral” views gradually shifted to “agree.”

- The CAOs that “disagree” have remained at a consistent level.

- However, there currently exists a gap between those who believe it’s critical and those who include it in their strategic plan.

- Private for-profit institutions have made the most progress in the past 2 years, increasing the number of institutions that include online education in their strategy plan going forward.
New Business Models Disrupt Higher Education Learning

The Evolution of Education

Pressure on government education budgets and rising costs of higher education are driving the necessity for cheaper alternatives for education. Various models that address the online market are detailed below:

**OpenCourseware**
OCW consists of academic course materials created by universities that are shared freely on the internet

**Massive Online Open Courses**
MOOCs bring together thousands of students around the globe to learn for free online

**Online Accredited Courses**
Typically subscription-based services that allow students to take accredited, general education courses online

**Online Courses**
Non-accredited courses that can help brush up on basics or learn new skills

**DIY Degrees**
Earn a bachelor’s degree by taking tests instead of classes

**Benefits:**
- Cheaper alternatives provide access to large student audiences
- User-defined service
- High quality resources raise global standards

**Limitations:**
- Recognition of qualifications and credentials
- One size fits all approach
- Not suitable for all students

<table>
<thead>
<tr>
<th>Providers</th>
<th># of Courses</th>
<th>Courses Covered</th>
<th>Cost</th>
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<tbody>
<tr>
<td>coursera</td>
<td>207</td>
<td>College courses</td>
<td>Free</td>
</tr>
<tr>
<td>edx</td>
<td>19</td>
<td>University level courses</td>
<td>Free</td>
</tr>
<tr>
<td>Udemy</td>
<td>9</td>
<td>University level courses</td>
<td>Free</td>
</tr>
<tr>
<td>Khan Academy</td>
<td>5,015</td>
<td>Courses can be made by anyone, including academic courses</td>
<td>Free – $29+</td>
</tr>
<tr>
<td>BenchPrep</td>
<td>3,600</td>
<td>K-12, SAT prep, GMAT prep and college level topics</td>
<td>Free</td>
</tr>
<tr>
<td>The Great Courses</td>
<td>200</td>
<td>High school, college, SAT, GRE, MCAT, professional courses</td>
<td>$20+ pcm</td>
</tr>
<tr>
<td>Straighterline</td>
<td>390</td>
<td>High school, college and professional courses</td>
<td>$20–$200+</td>
</tr>
<tr>
<td>College prep and college courses</td>
<td>42</td>
<td>College prep and college courses</td>
<td>$99 pcm +$49 per course</td>
</tr>
</tbody>
</table>

Source: Company data, Research reports, Educause
Corporate Training Increasingly Uses Technology

**Key Points**

- In 2010, US firms with less than 500 employees spent on average $1,605, companies with 500 to 9,999 employees spent $1,102 and firms with more than 10,000 spent $825 per employee\(^{(1)}\).

**Learning & Development Comments**

- US organisations made double digit cuts in L&D budgets in 2008 and 2009\(^{(2)}\) and are now currently in recovery with over $156bn spent on employee learning last year.

- Corporates in Spain and the UK lead the way in their use of e-Learning (with 56% and 53% respectively of learners using it):
  - Spain leads in the video category with 57% of users utilising this functionality\(^{(2)}\)
  - Germany leads on its use of serious games and mobile learning with German learner penetration rates of 21% and 15% respectively\(^{(2)}\).

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**Average Direct Learning & Development Expenditure per Employee**

<table>
<thead>
<tr>
<th>Year</th>
<th>BEST</th>
<th>G500</th>
<th>Consolidated</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>857</td>
<td></td>
<td></td>
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<td>2003</td>
<td>1,055</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>1,554</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>1,616</td>
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<tr>
<td>2007</td>
<td>1,531</td>
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<tr>
<td>2008</td>
<td>1,451</td>
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</tr>
<tr>
<td>2009</td>
<td>1,303</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>1,268</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>1,073</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**% of Formal Learning Hours Used via Technology Based Methods**

<table>
<thead>
<tr>
<th>Year</th>
<th>BEST</th>
<th>G500</th>
<th>Consolidated</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>34.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>34.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>38.7%</td>
<td></td>
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<tr>
<td>2007</td>
<td>36.4%</td>
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</tr>
<tr>
<td>2008</td>
<td>31.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>34.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>40.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>49.9%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** ASTD, Cegos

\(^{(1)}\) ASTD data including the entire sample
\(^{(2)}\) Cegos
e-Learning Penetration Increasing in European Corporates

% of Employees Using e-Learning Across European Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>&lt; 10%</th>
<th>10-50%</th>
<th>&gt; 50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>29%</td>
<td>30%</td>
<td>51%</td>
</tr>
<tr>
<td>Spain</td>
<td>33%</td>
<td>26%</td>
<td>44%</td>
</tr>
<tr>
<td>Benelux</td>
<td>40%</td>
<td>32%</td>
<td>42%</td>
</tr>
<tr>
<td>France</td>
<td>44%</td>
<td>18%</td>
<td>25%</td>
</tr>
<tr>
<td>Italy</td>
<td>43%</td>
<td>53%</td>
<td>26%</td>
</tr>
</tbody>
</table>

% of Employees Using e-Learning Across All Firm Sizes

Firm Size by Employees

<table>
<thead>
<tr>
<th>Firm Size by Employees</th>
<th>&lt; 10%</th>
<th>10-50%</th>
<th>&gt; 50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1,000</td>
<td>40%</td>
<td>26%</td>
<td>25%</td>
</tr>
<tr>
<td>1,000-5,000</td>
<td>39%</td>
<td>12%</td>
<td>25%</td>
</tr>
<tr>
<td>&gt; 10,000</td>
<td>30%</td>
<td>12%</td>
<td>35%</td>
</tr>
</tbody>
</table>

Key Points

- Market acceptance of e-Learning has resulted in increasing use for both large and small companies
- UK and Spain are leading the adoption of e-Learning in Europe
- Companies are increasing their use of e-Learning regardless of their size

Source: Ipsos, CrossKnowledge
Technology Driving “Bring Your Own Device” Learning

**Mobile – Education at Your Hands**

**Key Points**
- Significant online enrolment growth
- 6.5m students studied at least one online course in the US during 2011
- High single digit CAGR over the last 5 years

**Growth of Online Enrolment (Laptop)**

**Skill Gaps**

- Technology is ever more present across job specifications creating the need for e-Learning
- 90% of the US's fastest growing jobs require some indication of mastery of critical knowledge, skills, and abilities in technology
- 65% of today's grade school children in the US will end up at jobs that haven't been invented yet

**Student Tablet Ownership**

**Key Points**
- Multi-functional tool
- “Bring Your Own Tablet” (BYOT) theme
- 70% of college students have read a digital textbook versus 62% last year
- 58% of high school seniors have read digital books versus 41% last year

**Tablets & Connected Devices**

**Key Points**
- Strong and consistent shipment growth
- Smartphone penetration rates highest with 18-34 year olds
- Smartphones per person is growing


IBIS Capital | Global e-Learning Investment Review
Significant m-Education Growth and App Downloads

**m-Education Market by Region**

- North America: 31%
- Europe: 29%
- Developed Asia-Pacific: 23%
- Emerging Asia-Pacific: 54%
- Latin America: 54%
- Middle East & Africa: 50%

**Key Points**

- Serious Gaming & Gamification engages the learner by focusing on cognitive learning and pushes learners with results-driven solutions.

- The Serious Gaming & Gamification sector is forecasted to grow from $2.0bn in 2012 to $7.4bn in 2015.

- Games and simulation based tools are expected to grow at a 37% CAGR to 2020.

- Education app downloads are greater than the overall average in both free and paid for downloads.

---

**Free Education App Downloads**

<table>
<thead>
<tr>
<th>Category</th>
<th>2009-2011 CAGR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>News</td>
<td>342</td>
</tr>
<tr>
<td>Travel</td>
<td>270</td>
</tr>
<tr>
<td>Education</td>
<td>239</td>
</tr>
<tr>
<td>Healthcare &amp; Fitness</td>
<td>234</td>
</tr>
<tr>
<td>Lifestyle</td>
<td>232</td>
</tr>
<tr>
<td>Social Networking</td>
<td>223</td>
</tr>
<tr>
<td>Books &amp; Reference</td>
<td>226</td>
</tr>
<tr>
<td>Music</td>
<td>226</td>
</tr>
<tr>
<td>Business</td>
<td>193</td>
</tr>
<tr>
<td>Sports</td>
<td>177</td>
</tr>
<tr>
<td>Entertainment</td>
<td>175</td>
</tr>
<tr>
<td>Games</td>
<td>145</td>
</tr>
<tr>
<td>Overall average</td>
<td>188</td>
</tr>
</tbody>
</table>

**Paid For Education App Downloads**

<table>
<thead>
<tr>
<th>Category</th>
<th>2009-2011 CAGR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>221</td>
</tr>
<tr>
<td>Healthcare &amp; Fitness</td>
<td>213</td>
</tr>
<tr>
<td>Music</td>
<td>212</td>
</tr>
<tr>
<td>Social Networking</td>
<td>206</td>
</tr>
<tr>
<td>Books &amp; Reference</td>
<td>201</td>
</tr>
<tr>
<td>News</td>
<td>175</td>
</tr>
<tr>
<td>Entertainment</td>
<td>185</td>
</tr>
<tr>
<td>Education</td>
<td>180</td>
</tr>
<tr>
<td>Sports</td>
<td>174</td>
</tr>
<tr>
<td>Lifestyle</td>
<td>171</td>
</tr>
<tr>
<td>Games</td>
<td>156</td>
</tr>
<tr>
<td>Travel</td>
<td>136</td>
</tr>
<tr>
<td>Overall average</td>
<td>178</td>
</tr>
</tbody>
</table>

Source: McKinsey, Research reports

(1) m-Education includes all internet connected devices, such as smartphones or tablets.

(2) List of categories not exhaustive.
IBIS Capital | Global e-Learning Investment Review

Key Points

- Kompass International found c.3,000 European companies in the e-Learning sector.

- Poland’s government is investing heavily with the aid of EU structural funds into e-Learning and learning technologies for education.

- The UK market has approximately 260 e-Learning software development companies, more than double France (2.5x), the next largest market in Europe.

- Despite being the largest market in Europe, the number of UK e-Learning software development companies have fallen by 11% p.a. for the last 2 years, in part due to consolidation within the industry.

Source: Kompass International

Note: The figures represent the companies who have registered with Kompass International, and should not be taken as a true reflection of market size and activity. Nevertheless it is a good indication of activity within markets in the absence of other comparable data sets.
Deal Activity Driven by Subsector Consolidation

**e-Learning Consolidation Curve**

- **Sector Launch**
  - VC investment (high risk, high return)
  - Some small M&A

- **Sector Growth for Scale**
  - Higher equity investment
  - Higher volume, mid-market strategic M&A

- **Sector Consolidation**
  - Leverage buyouts (medium risk, medium return)
  - Low volume, larger scale strategic M&A

- **Sector Equilibrium**
  - More mature M&A/investment market
  - Cost focus
  - Alliances or spinoffs

**Expected Deal Activity**

- **High**
  - Learning Management Systems
  - Tutoring
  - e-Learning-led Training Providers
  - Assessment

- **Medium**
  - Open-Source Learning Repositories
  - Mobile Learning
  - Virtual Environments
  - Social Learning Platform for Education
  - Social Media in Education
  - Serious Gaming / Gamification
  - e-Portfolios
  - Learning 2.0

- **Low**
  - Quantum & Affective Computing
  - Open-Source SIS
  - MOOCs
  - Curation and Content Accessibility Tools
  - Assessment & Analytics Tools
  - Adaptive Learning
  - BYOD

**Source**: IBIS Capital, Learning Light, Bersin & Associates, Gartner
Education Giants Growing Over the Years

Education Revenue

<table>
<thead>
<tr>
<th>Company</th>
<th>2011 FY ($bn)</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>Blackboard</td>
<td>2.5</td>
<td>11.7%</td>
</tr>
<tr>
<td>McGraw 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</td>
<td>1.9</td>
<td>3.4%</td>
</tr>
<tr>
<td>Pearson's Education Operating Margin (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson's Education Revenue as a % of Total Revenue</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Company data, Capital IQ, Annual Reports

(1) Refers to restated figures where relevant. Revenue figures are converted at historical exchange rates
(2) Based on analyst estimates of Blackboard's 2011 FY revenue
(3) Refers to CAGR from 2008-2011
### Global e-Learning M&A Activity

#### Total Deal Value and Volume of e-Learning M&A Transactions
Since 2007 and above $20m

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Deal Value ($bn)</th>
<th>e-Learning Deal Value ($bn)</th>
<th>Volume (Total)</th>
<th>e-Learning as a % of Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>20.5</td>
<td>9.2</td>
<td>2.4</td>
<td>47%</td>
</tr>
<tr>
<td>2008</td>
<td>19.3</td>
<td>8</td>
<td>2.1</td>
<td>13%</td>
</tr>
<tr>
<td>2009</td>
<td>12.2</td>
<td>1.2</td>
<td>0.7</td>
<td>56%</td>
</tr>
<tr>
<td>2010</td>
<td>19.0</td>
<td>4.2</td>
<td>1.6</td>
<td>68%</td>
</tr>
<tr>
<td>2011</td>
<td>10.5</td>
<td>10.5</td>
<td>0.7</td>
<td>74%</td>
</tr>
<tr>
<td>2012</td>
<td>8.5</td>
<td>8.5</td>
<td>3.1</td>
<td>75%</td>
</tr>
</tbody>
</table>

#### Key Points
- Since 2007, 61% of total targets were acquired by strategic buyers
- North America dominates activity by value and number of deals
- EV/EBITDA multiples for e-Learning have come down as the market has become more developed
- e-Learning maintains significant premium over traditional education
- Since 2007, Pearson has acquired 15 companies; 11 of them were acquired after 2010 and all were digital-based / e-Learning businesses

#### Global Education M&A Volume by Sector Since 2007

<table>
<thead>
<tr>
<th>Sector</th>
<th>% of Total Deal Value</th>
<th>% of Total Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>85.0%</td>
<td>36.8%</td>
</tr>
<tr>
<td>Europe</td>
<td>15.0%</td>
<td>63.2%</td>
</tr>
<tr>
<td>e-Learning</td>
<td>44.6%</td>
<td>36.8%</td>
</tr>
<tr>
<td>Traditional Education</td>
<td>55.4%</td>
<td>63.2%</td>
</tr>
</tbody>
</table>

#### EV / EBITDA (Mean): e-Learning vs. Traditional Education

<table>
<thead>
<tr>
<th>Sector</th>
<th>EV / EBITDA Mean (X)</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-Learning</td>
<td>27.0X (i)</td>
</tr>
<tr>
<td>Traditional Education</td>
<td>12.5X</td>
</tr>
</tbody>
</table>

### Source
Press releases, SEC filings, Capital IQ as at 31 December 2012

(i) Explained by one transaction namely, Pearson’s acquisition of eCollege.com
Recent e-Learning Fundraising Summary

Key Points

- The US is the most active global fundraising market for Education, accounting for 58% of total deals, with high growth markets, India and China trailing with 12% and 9% respectively

- Europe accounts for 6% of total fundraising volume with the UK leading and accounting for 2.1% of total fundraising volume

- Private companies are receiving significant attention and account for 82% of total fundraising activity by deal volume since 2007

- The two largest fundraisings in 2012 were Desire2Learn / NEA, OMERS ($80m) and FoxyP2 / Insight, Redpoint, Flybridge, Kaszek ($43m)

Source: Capital IQ, as at 31 December 2012

(i) Refers to global equity investments where transaction values are disclosed and are above $1m
# Industry Overview

<table>
<thead>
<tr>
<th>Industry Structure</th>
<th>Content</th>
<th>Management Systems</th>
<th>Distribution</th>
<th>Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
<tr>
<td>Key Affecting Factors</td>
<td>Regulatory/Curriculum</td>
<td>Scale</td>
<td>Online</td>
<td>Cost</td>
</tr>
<tr>
<td></td>
<td>Corporate Requirements</td>
<td>Complexity</td>
<td>Free/Paid</td>
<td>Level of Qualification</td>
</tr>
<tr>
<td></td>
<td>Consumer Requirements</td>
<td>Efficiency</td>
<td>One-to-One/One-to-Many</td>
<td>Flexibility</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Type of Business</th>
<th>Publishers</th>
<th>Software Platform</th>
<th>Immersive Learning</th>
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</thead>
<tbody>
<tr>
<td>Content</td>
<td>Open Source</td>
<td>Tools</td>
<td>MOOCs</td>
</tr>
<tr>
<td>Smart Technology</td>
<td>Learning Portal</td>
<td></td>
<td></td>
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</tbody>
</table>

IBIS Capital | Global e-Learning Investment Review 28
Sample of Industry Players
e-Learning Subsector

Content
## Content: Industry Overview

### Industry Structure

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<tr>
<td><img src="image" alt="Content Icon" /></td>
<td><img src="image" alt="Management Systems Icon" /></td>
<td><img src="image" alt="Distribution Icon" /></td>
<td><img src="image" alt="Customers Icon" /></td>
</tr>
</tbody>
</table>

### Key Affecting Factors

- Regulatory/Curriculum
- Corporate Requirements
- Consumer Requirements
- Scale
- Complexity
- Efficiency
- Online
- Free/Paid
- One-to-One/One-to-Many
- Cost
- Level of Qualification
- Flexibility

### Type of Business

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</tr>
<tr>
<td>Open Source</td>
<td>Smart Technology</td>
<td>Learning Portal</td>
</tr>
</tbody>
</table>
**Subsector Definition**

- Content involves the production of materials that will be used in a learning environment, typically in an educational institution or for learning & development programmes in a company.
- The standards are set, in the main, and upheld by government and/or government approved organisations that address regulatory, curriculum, corporate and consumer requirements.
- Publishers are key players in content creation and address the entire education market.
- Technology is enabling new forms of publishing, e.g. via video or e-Books, which publishers need to adapt to.

**Market Size**

**$4,435bn**
Global education expenditure

**7.4%**
Global education expenditure 2012-2017 CAGR

**$90.9bn**
e-Learning 2012

**23.0%**
e-Learning 2012-2017 CAGR

**$3,719m**
Print Book Revenues 2011

**26.1%**
e-Books (as a % of Print) 2011

**107.5%**
e-Books 2006-2011 CAGR

**Key Industries and Companies**

Publishers

Developers

**Recent M&A Activity**

<table>
<thead>
<tr>
<th>Date</th>
<th>Target</th>
<th>Acquirer</th>
<th>EV ($m)</th>
<th>EV/EBITDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov-12</td>
<td>McGraw-Hill Education</td>
<td>Apollo Global Management</td>
<td>2,747</td>
<td>7.1x</td>
</tr>
<tr>
<td>Jun-12</td>
<td>ALC Press</td>
<td>Nippon Mirai Capital</td>
<td>65</td>
<td>4.7x</td>
</tr>
<tr>
<td>Nov-11</td>
<td>OJSC Publishing</td>
<td>Olma Media</td>
<td>72</td>
<td>NA</td>
</tr>
<tr>
<td>Aug-11</td>
<td>Carnegie Learning</td>
<td>Apollo Group</td>
<td>75</td>
<td>NA</td>
</tr>
<tr>
<td>Feb-11</td>
<td>Pearson Sistemas do Brasil</td>
<td>Pearson</td>
<td>330</td>
<td>NM</td>
</tr>
</tbody>
</table>
Content: Industry Players

- **e-Learning Standards**
- **Publishers**
- **Developers**
- **Authoring Tools**
- **Content Aggregator Libraries & Repositories**

(1) These companies aid distribution and have been included for completeness.
Content: Key Affecting Factors

Regulatory / Curriculum Drivers
- The Tin Can Project\(^{(1)}\) is setting new technical industry standards for e-Learning software
- Government initiatives will act as catalysts to encourage mass adoption of e-Learning
- Teachers influence on the adoption of e-Learning will be dependent on the teaching methods introduced

Consumer Requirements
- Consumers need education and supporting materials to be available at affordable rates
- Recognised credentials and acknowledged standards
- Having access to quality learning content that addresses skills requirement

Corporate Requirements
- Specialised training and skills programmes can be expensive; e-Learning to provide more efficient tailored solutions
- Performance measurement and analytics serve as an important aspect to assessing ROI on corporate training

Authoring Tools
- Technological developments provide tools for teachers to create digital content
- Teachers need to acquire new skills to respond to technology now available
- Navigating through different options is a complex issue for learning establishments

Developers
- Harder to generate significant value from content IP due to increased competition and easier consumer access
- Business model for developers typically project-based for specific clients
- Interactive content with adaptive learning programmes to become increasingly available

Content Aggregators
- e-Libraries and databases of learning content will give users a single point of access to resources
- Ease of access and relevance of materials will determine the usefulness

---

\(^{(1)}\) US project dedicated to defining the e-learning software specification that allows learning content and learning systems to speak to each other in a manner that records and tracks all types of learning experiences
e-Books and the Book Rental Market

**Key Points**

- Access to published learning content is more important than the ownership of the same content

- In the US, textbook prices have increased at twice the rate of inflation, leading to online textbook rental sites, that significantly reduce the cost of access

- Publishers seeking to introduce a hybrid model to preserve margins (see table). However, migration to digital continues to accelerate as per the graph, implying diminishing value from physical textbooks

**Comparison of the Potential Opportunity for Publishers to Switch to e-Books**

Illustrative sample of a typical 200 student class over a 3 year period

<table>
<thead>
<tr>
<th>Print</th>
<th>e-Book Substitute</th>
<th>Hybrid Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addressable Units</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>Units Sold</td>
<td>240</td>
<td>540</td>
</tr>
<tr>
<td>Average Sale Price ($)</td>
<td>115</td>
<td>54</td>
</tr>
<tr>
<td>$/Addressable Units</td>
<td>46</td>
<td>49</td>
</tr>
<tr>
<td>Total Revenue ($)</td>
<td>27,600</td>
<td>29,344</td>
</tr>
<tr>
<td>Gross Margin (%)</td>
<td>75%</td>
<td>85%</td>
</tr>
</tbody>
</table>

**Savings off retail price of print textbook by purchase of:**

<table>
<thead>
<tr>
<th>Savings (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rental books</td>
</tr>
<tr>
<td>e-Book</td>
</tr>
<tr>
<td>e-Reader</td>
</tr>
<tr>
<td>Used books</td>
</tr>
</tbody>
</table>

Source: IBIS Capital analysis, American Association of Publishing, Cengage, Student PIR
Company Overview
Research-based game developer with 25 employees targeting organisations in both the private and public sector in over 50 countries. The company has completed 75 successful client projects, launched 18 own-brand products, has 5 ongoing research projects and won 15 awards for its excellence.

Clients

Engaging Learning Solutions in a Workplace Environment

Serious Games Interactive (“SGI”) provides custom-made client games and develops its own educational series across a range of ages from 2 to adult. The company provides:

- **Content**
- **Management Systems**
- **Distribution**
- **Customer**

**Client Projects**
- Academic
- Cultural
- Health
- Education
- Social
- Market
- Corporate

**SGI Projects**
- Global Conflicts
- Playing History
- Trunky’s Adventures

**Case Study**

**Challenge:** Nykredit, a leading Danish finance institution with 4,400 employees, required an innovative and engaging new employee programme.

**Solution:** A simple and fun reality game that included puzzles and other tasks to learn about the company’s corporate structure, products & services, company history and distribution channels. The proposal targeted all new employees and lasted around 60 minutes over a web-based programme.
Content: Case Study 2

Apple in Education

Company Overview
The iTunes U application serves as a powerful distribution system for high quality content. It is the world’s largest catalogue of free education content with:
- over 500,000 free lectures, videos, books, and other resources on thousands of subjects from Algebra to Zoology
- collections from education and cultural institutions in 26 countries including Stanford, Yale, MIT, Oxford, UC Berkeley, MoMA, the New York Public Library, and the Library of Congress

iBook Author
- Authoring tool that enables people to create multi-touch textbooks

Features
- Take free courses created and taught by instructors from leading universities and other schools
- See all assignments and updates from the instructor in one place, and check off assignments as you complete them
- Take notes and highlight text in iBooks and see them consolidated for easy reviewing in the iTunes U app
- Take course notes in class or while playing audio or video lectures inside of iTunes U
- Access course materials, including: audio, video, books, apps, new documents & presentations and iBooks textbooks for iPad
- Share your favourite courses with friends using Twitter, Mail and Messages

The Open University on iTunes U
- 58.8m total downloads
- 7.8m unique downloaders
- 206,100 downloads per week
- 423 OpenLearn study units representing over 5,000 hours of study
- 59 iTunes U Courses

Cumulative Downloads and Unique IPs

Geographical Breakdown of Downloads

Source: Company Data
(i) Open University
**TSL**

**Company Overview**
TSL is the UK’s leading educational publisher and host to the world’s largest network of teaching professionals. The company manages the largest database of user-generated teaching resources and is the UK’s leading online recruitment platform for education.

**Key Commentary:**
“It’s by teachers, for teachers, and is a free, easy-to-use source for classroom resources. It will become every teacher’s go-to online destination for the support they need.”

“We searched the whole of the USA. We could not find a company that understood teachers better - or had a real understanding of how technology can help them be even better.”
– Randi Weingarten, AFT President

It is generally reported that 50% of teachers leave the teaching profession within their first 5 years because of a lack of support, deep education budget cuts and other frustrations. This teacher turnover costs $7.3bn annually, with unknown costs to children’s education.(1)

---

**The Largest Network of Teachers in the World**

TSL Education engages with the education sector in a broad range of activities:

**Communities**
The largest single-profession social network in the world, in the single-largest profession in the world
- **2.3m registered users** growing by 18,000 a week (from an average of 150 countries)
- Teachers from **197** countries

**Publishing**
- **#1** UK weekly education publication
- **#1** THE World University Rankings is the leading global university ranking system

**Resourcing**
- **560,000** resources with an average of 33,000 added each month (70% UGC(2))
- **200m** resources downloaded, with 100m resource downloads in the past year
- 7 resources downloaded every second, 3.3m a week
- **7.7m** monthly visits and **62m** page views

**Recruitment**
- **#1** for UK education hiring solutions
- **95%** of UK secondary head positions advertised in TES during 2011/12
- **60%** of revenue comes from online and TSL is as profitable today as it has ever been in its history
- For every £1 taken in advertising revenue, TSL upsells by **43p**

TES iBoard is a library of free teaching resources, aimed at ages 4-11
A premium subscription is available, which includes exclusively produced content including lesson plans, mapped to the curriculum for less than a pound a month

---

Source: Company data
(1) National Commission on Teaching and America’s Future
(2) User Generated Content
Content: Conclusions

1. **Personalisation**
   e-Learning will allow for increasing levels of personalisation. Textbooks will become replaced by interactive learning programmes that link to the progress of the individual student as well as to the reference data collected from other students.

2. **Lifetime Learning**
   Educational content will need to bridge the gap from the academic to the skill based requirements of the workplace. Bridging the gap will provide the content owner the opportunity to keep the relationship with the consumer as they move from school to the workplace.

3. **Social Content**
   Content, learning experiences and peer-to-peer help from a network of users within the educational ecosystem have meant that content is no longer standalone material but instead evolves with input from its users. Managing content in this way is leading to a range of new disruptive businesses.

4. **Gamification**
   The e-Learning environment allows for the integration of games and entertainment to create an immersive experience that can accelerate the learning process. This creates new content opportunities to provide interactive edutainment.

5. **Accreditation**
   As content becomes more accessible and with the arrival of MOOCs, the value of accreditation from a recognised authority or brand will be increasingly important. Publishers will seek to align content with accrediting bodies.

6. **Next Generation of e-Learning**
   There are current initiatives to tag and store online the full range of learning experiences from educational courses to indirect skill development that an individual is exposed to over a lifetime. In the US, this next generation of e-Learning is being termed the Tin Can initiative. Publishers will need to adapt to these new standards and applications.
e-Learning Subsector
Management Systems
# Management Systems: Industry Overview

<table>
<thead>
<tr>
<th>Industry Structure</th>
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<td></td>
<td>Corporate Requirements</td>
<td>Complexity</td>
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<td></td>
<td>Consumer Requirements</td>
<td>Efficiency</td>
<td>One-to-One/One-to-Many</td>
<td>Flexibility</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Type of Business</th>
<th>Publishers</th>
<th>Software Platform</th>
<th>Immersive Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Tools</td>
<td>MOOCs</td>
<td></td>
</tr>
<tr>
<td>Open Source</td>
<td>Smart Technology</td>
<td>Learning Portal</td>
<td></td>
</tr>
</tbody>
</table>
Subsector Definition

- A software platform used in academic institutions and corporates to manage the learning process and associated content
- A platform can be enabled to tackle various tasks including: administration, procurement, content management, reporting, syncing, marketing, authoring tools, repositories / content, libraries, communities, assessment, analytics, etc
- LMSs are based on a variety of development platforms such as Java EE, Microsoft .NET, PHP and usually employ a database backend. Some systems are free and open-source others charge a software licence fee
- Although LMSs vary and are built for specific purposes within the corporate and academic environment, they share a similar set of characteristics described above
- The next generation of LMSs are focusing on: how to manage learning over extended periods (work and academic); to create adaptive learning models; and, to create record stores of individuals learning experiences from multiple sources

Market Size

**9.5%**
US training budget 2010-2011 growth rate

**Single Biggest Expenditure**
Learning Management Systems

**$1,939m**
Global LMS market size 2012P

**14.7%**
LMS 2011-2012 growth rate

**229 Customers**
Accounted for by the Top 5 LMS vendors

**132m Users**
Accounted for by the Top 5 LMS vendors

2013P Global LMS Market Share

<table>
<thead>
<tr>
<th>Company</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>SumTotal</td>
<td>6%</td>
</tr>
<tr>
<td>SAP</td>
<td>8%</td>
</tr>
<tr>
<td>Oracle</td>
<td>7%</td>
</tr>
<tr>
<td>Cornerstone</td>
<td>5%</td>
</tr>
<tr>
<td>Blackboard</td>
<td>3%</td>
</tr>
<tr>
<td>Saba</td>
<td>4%</td>
</tr>
<tr>
<td>Other</td>
<td>58%</td>
</tr>
<tr>
<td>Skillsoft</td>
<td>3%</td>
</tr>
<tr>
<td>ACM (Xerox)</td>
<td>3%</td>
</tr>
</tbody>
</table>

Key Industries and Companies

Software

Technology

Recent M&A Activity

<table>
<thead>
<tr>
<th>Date</th>
<th>Target Description</th>
<th>Acquirer Description</th>
<th>EV ($m)</th>
<th>EV/EBITDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct-12</td>
<td>EmbanetComp ass</td>
<td>Pearson</td>
<td>650</td>
<td>NA</td>
</tr>
<tr>
<td>Oct-12</td>
<td>Deltak edu</td>
<td>John Wiley &amp; Sons</td>
<td>220</td>
<td>NA</td>
</tr>
<tr>
<td>Aug-12</td>
<td>Campus Labs</td>
<td>Higher One Holdings</td>
<td>41</td>
<td>NA</td>
</tr>
<tr>
<td>Jun-12</td>
<td>Active Internet Technologies</td>
<td>Spectrum Equity Investors</td>
<td>55</td>
<td>NA</td>
</tr>
<tr>
<td>May-12</td>
<td>Certiport</td>
<td>Pearson</td>
<td>140</td>
<td>NA</td>
</tr>
</tbody>
</table>

Source: Microsoft, Bersin & Associates
Management Systems: Industry Players

- **LMS**
  - Blackboard
  - moodle
  - Sakai
  - Totara

- **TMS**
  - UL
  - Oracle
  - SAP
  - Learning Pool

- **OCMS/OCW**
  - Moodle
  - Sakai
  - Totara

- **SLMS**
  - Edmodo
  - Pearson
  - Taleo

- **Assessment & Analytics**
  - ETS
  - NWEA
  - Questar
  - Questionmark

- **Distribution**
  - CourseMill
  - Cornerstone
  - Rustici

- **Customer Management Systems**
  - Skillssoft
  - SumTotal
  - Meridian
  - Synergy Learning

- **Content**
  - Docebo
  - Lectora
  - Plato Learning
  - Virtual College

- **Management Systems**
  - Bb
  - Litmos
  - NetDimensions
  - Latitude Learning

- **Inquiries**
  - Inquisiq
  - Edmodo

- **Other**
  - TSL
Management Systems: Key Affecting Factors

1. **Scale**
   - Requirement to perform a multitude of tasks across large user bases
   - Many LMSs offer resource planning and management across the firm from scheduling courses, allocating and reminding learners about courses and managing physical learning resources

2. **Complexity**
   - Alternative formats and teaching techniques required to deliver personalised learning experiences
   - Big data analytics required to enhance efficiency and create adaptive learning environments
   - Easy to use feedback required for effective management oversight

3. **Efficiency**
   - Human resource management within developed economies will increase the adoption of LMSs to improve efficiency
   - Specific skill requirements can be tailored within the e-Learning environment to enhance the suitability of training to the workplace

4. **Market Confusion**
   - Evaluation of alternative LMS platforms is an important and complex process
   - LMS vendors seek to differentiate by adding functionality e.g. mobile learning, social learning or configuring for specific genres such as video-based learning

5. **Corporate Requirements**
   - Measuring the Return on Investment is key to LMS
   - Ongoing performance management and monitoring of users within a LMS can provide data on effectiveness that corporates will require
   - Flexibility to adjust training as corporate requirements change over time

6. **Consumer Requirements**
   - Students looking for content that addresses their individual needs and is accessible in multiple formats (mobile, tablet, desktop)
   - Feedback to track progress and benchmark against peer group
Management Systems: Case Study
Lore, More Than Just the Facebook of Education

Company Overview
Lore provides an online learning platform where educational content can be managed using social networking features.

A competitor to Blackboard, Lore is currently being used by over 600 instructors at various institutions.

Social network and communities education market size is currently c.$1.0bn and is estimated to grow at a 41.1% CAGR to $5.6bn by 2017.

Key Commentary:
“The Internet is reshaping how people learn, and Lore is one of the companies making that happen. My course at Stanford is using Lore and we can see dynamics changing already.”
- Peter Thiel, seasoned entrepreneur and investor

“The people are actually kind of hanging out on it, which is what I really wanted to happen.”
- Peter Mandaville, professor at George Mason University

Social Learning Management System for Both Students and Instructors

- Lore creates a social network around the participants engaged in individual courses; both teachers and students
- The market in the US is dominated by Blackboard which has a market share in excess of 50%
- The business was launched at the end of 2011 and has attracted approximately $6m of venture funding
- The platform allows teachers to create a shared environment in which a course can be taught, discussions facilitated and materials shared
- The challenge is the business model, as the site is accessible for free and carries no advertising. The business is dependent on achieving a critical user mass to create ancillary chargeable services

The layout is simple and replicates the classic clean look of Facebook:
Management Systems: Conclusions

1. **SaaS/Cloud Model Dominant**
The SaaS/Cloud solutions are dominant in the e-Learning market. The SaaS/Cloud e-Learning vendors have grown strongly and have been able to deliver solutions from SMEs to large institutions. Particular advantages for the Cloud have been independence from internal IT departments, rapid innovation and flexibility.

2. **Big Data Analytics**
The increasing sophistication of analytics combined with the big fall in data storage costs is changing the e-Learning LMS environment. The learning path for a user within a LMS can be personalised to their own individual requirements and learning aptitude based on data collected from a vast network of other learning experiences.

3. **Learning Record Store (LRS)**
The US is seeking to develop a new generation of software specifications to manage an individual’s learning experience across multiple formats and environments. The initiative has been called Tin Can and is an API that records learning events for storage in an LRS. The next generation of LMSs will emerge out of these types of initiatives.

4. **Link from Academic to Corporate**
There is little integration between the e-Learning market place for the corporate user and the academic institution. As LMSs evolve in order to deliver “lifelong” learning systems the two environments of academia and corporate will need to integrate learning systems.

5. **Blended Learning Solution**
The blended solution is where formal content and instruction is delivered part online and part face-to-face. A European study(1) revealed that 76% of corporate users preferred this method and planned to increase usage. In the US, colleges are starting to trial “flipped” classrooms delivering a blended solution.

6. **Business Models**
The SaaS/Cloud model for LMS allows for both subscription based services and freemium models. The latter will depend on achieving critical mass to layer on chargeable ancillary services. Particular to corporates, subscription-based models will allow LMS businesses to attract software company valuation multiples.

Source:
(1) CrossKnowledge, Fefaur and Ipsos
e-Learning Subsector
Distribution
## Distribution: Industry Overview

<table>
<thead>
<tr>
<th>Industry Structure</th>
<th>Content</th>
<th>Management Systems</th>
<th>Distribution</th>
<th>Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regulatory/Curriculum</td>
<td>Scale</td>
<td>Online</td>
<td>Cost</td>
</tr>
<tr>
<td></td>
<td>Corporate Requirements</td>
<td>Complexity</td>
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<td>Level of Qualification</td>
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<td></td>
<td>Consumer Requirements</td>
<td>Efficiency</td>
<td>One-to-One/One-to-Many</td>
<td>Flexibility</td>
</tr>
</tbody>
</table>

### Key Affecting Factors
- Regulatory/Curriculum
- Corporate Requirements
- Consumer Requirements
- Scale
- Complexity
- Efficiency
- Online
- Free/Paid
- One-to-One/One-to-Many
- Cost
- Level of Qualification
- Flexibility

### Type of Business
- Publishers
  - Content
  - Open Source
- Software Platform
  - Tools
  - Smart Technology
- Immersive Learning
  - MOOCs
  - Learning Portal
**Subsector Definition**

- Distribution addresses the link from content creation to end-user consumption. e-Learning content can be distributed to any connected device.

- Approximately 35% of the world’s 7bn population are users of the internet. Over 1bn are based in Asia. The highest penetration rates are in North America (78%), Oceania (67%) and Europe (63%).

- m-Education\(^{(1)}\) is an increasingly important sector for distributed learning. e-Learning apps provide a basis for anytime, anywhere learning.

- The US and Europe account for over 70% of the global e-Learning industry. The Asian e-Learning market is expected to reach $11.5bn by 2016.

- The three largest US academic players offer universities and teachers the ability to provide both domestic and international reach for their courses.

- Outside of the US, Open University, one of the oldest distance learning providers, is launching FutureLearn in 2013 as the UK/European response to the US initiatives.

**Market Size**

- **2.4bn**
  Global internet users at 30th June 2012

- **107.5%**
  e-Books 2006-2011 CAGR

- **257.1%**
  2011A-2012P student tablet ownership growth

- **30.8%**
  2011A-2020P m-Education\(^{(1)}\) growth

- **6.5m**
  Students taking at least one course online

- **41.7%**
  Global Fortune 500 companies used technology during formal learning hours

**Key Industries and Companies**

**Online**

- Capella Education Company
- Coursera
- Udemy
- edX
- Udacity

**Serious Gaming**

- Fingerprint
- Languagemap
- Clinispace

**Immersive**

<table>
<thead>
<tr>
<th>Date</th>
<th>Target</th>
<th>Acquirer</th>
<th>EV ($m)</th>
<th>EV/EBITDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep-12</td>
<td>Chelsea Independent College</td>
<td>Sovereign Capital</td>
<td>48</td>
<td>NA</td>
</tr>
<tr>
<td>Aug-12</td>
<td>Explore Learning</td>
<td>Graphite Capital</td>
<td>48</td>
<td>NA</td>
</tr>
<tr>
<td>May-12</td>
<td>I DRIVE SAFELY</td>
<td>Compass Partners</td>
<td>73</td>
<td>NA</td>
</tr>
<tr>
<td>May-12</td>
<td>GlobalEnglish</td>
<td>Pearson</td>
<td>90</td>
<td>NA</td>
</tr>
<tr>
<td>May-12</td>
<td>Casterbridge Nurseries</td>
<td>Bright Horizons Family Solutions</td>
<td>114</td>
<td>NA</td>
</tr>
</tbody>
</table>


\(^{(1)}\) m-Education includes all internet-connected devices
Distribution: Industry Players

(1) m-Education includes all internet-connected devices
## Distribution: Key Affecting Factors

<table>
<thead>
<tr>
<th></th>
<th>Available Audience</th>
<th></th>
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<tbody>
<tr>
<td>1</td>
<td>Falling costs in PC and mobile devices combined with widely distributed internet access has created a global market for academic and corporate e-Learning. At the same time there is a digital divide in both developed and undeveloped economies which limits access to certain groups.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Corporate vs. Academic</th>
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<tbody>
<tr>
<td>2</td>
<td>Corporate demands for bespoke e-Learning programmes for discrete audiences differ from the academic opportunity to reach much wider student populations. The student as a consumer leads to the emergence of freemium models as opposed to the corporate buyer that is likely to be on a SaaS-based subscription.</td>
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<thead>
<tr>
<th></th>
<th>Government Funding</th>
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<tbody>
<tr>
<td>3</td>
<td>e-Learning provides a cost efficient way of distributing education more widely. However, a government funding approach based on physical institutions will need to be realigned. In the US it is estimated that 85% of every dollar spent on classroom training is spent delivering it(^{(1)}).</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Immersive Learning</th>
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<tbody>
<tr>
<td>4</td>
<td>Immersive Learning provides a simulated real world environment in which teaching or skills training can be provided. 2-way interaction is available between teachers and students, as in a normal classroom. In the corporate environment, virtual learning allows complex workplace skills such as for the aviation industry to be taught in a simulated environment.</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Social Content</th>
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<tbody>
<tr>
<td>5</td>
<td>Peer-to-Peer learning provides the social networking benefits to the learning process, as users access their peer group for problem solving and assistance. The networked environment allows for the collaborative sharing and distribution of content. Curation becomes important in managing the user value of social content.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Accreditation</th>
<th></th>
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<tbody>
<tr>
<td>6</td>
<td>As e-Learning becomes more widespread accreditation will become increasingly important to the end user, both individual consumer and corporate, to ensure the value of a completed course is recognised. Accreditation will be an important chargeable service in the e-Learning ecosystem.</td>
<td></td>
</tr>
</tbody>
</table>

\(^{(1)}\) Bluedrop Performance Learning 14 November 2012
## Massive Online Open Courses

**Udacity**

### Company Overview
- 18 online courses available
- 800,000 students enrolled in Udacity
- 5,500 videos online, the most popular of which have been translated into 10 languages
- Global reach to over 190 countries

### Key Competition Statistics
- 33 partner universities
- 199 online courses available
- 1.7m registered students
- 4 partner universities
- 9 online courses available
- 370,000 unique learners

**Coursera**
- 33 partner universities
- 199 online courses available
- 1.7m registered students

**edX**
- 4 partner universities
- 9 online courses available
- 370,000 unique learners

---

### “Bringing accessible, engaging and effective higher education to the world”

Udacity focuses on providing free online-only computer science courses to a global audience of students who may or may not have had the access to higher education. The lectures encourage self-paced learning through a variety of methods with the ultimate goal to be certified and further connected with job opportunities, at a low cost.

The teaching methods include:
- Short video lectures
- Take quizzes and other game-based education tests
- Interactive Q&A sessions/self-study groups
- Homework assignments

### Is the MOOC Business Model Self-Sustainable? Discussion Points

**Students:**
- Adopt the freemium model and the education for free
- Charges include the cost to receive credentials and additional services

**University:**
- Separates teachers and researchers
- Lose innovation by reducing number of professors

**Employers:**
- Tailor learning towards courses
- Course credibility at question

**Licensing:**
- Sell the course, part of the course or customised versions to enterprises
- Sell use of platform itself

**Advertisers:**
- Access to specific demographics for marketing by sponsoring a course
- Disruptive to education quality

---

**Source:** Company data

---

**Picture of the day:** Udacity Students in West Africa
Company Overview
An educational non-profit focused on delivering online micro lectures via video across a variety of subjects:

- c.215m lessons delivered
- Over 3,600 videos
- Global classroom

Funding Support
The O'Sullivan Foundation
Reed Hastings
Google
Anne & John Doeer

YouTube Teaching Videos Disrupts the Classroom
Khan Academy started when Salman Khan added YouTube videos to teach his cousins on various topics. The videos were public and as viewership and engagement grew it became evident that there was demand for simple, self-managed video-based learning. Ultimately, teachers started to use Khan Academy to “flip” the classroom where lectures were watched online as homework and problem-solving tasks were down in the classroom, reversing the traditional method for teaching.

Assessment, Reviewing and Allocating Resources
A key feature of Khan Academy is that progression is recorded using tools as highlighted below:

Low Barriers To Entry
- Video-based, low set-up costs
- Start-up approach where companies seek to gain market power through size of reachable network

Emerging Themes
- One world classroom
- Feedback loop becoming a key tool for learning through games and analytics
- Not-for-profit is not sustainable

Content  Management Systems  Distribution  Customer
Company Overview

- A leading video-based online marketplace for skill-based and lifelong learning
- 6,000 courses of which 1,500 are paid courses (a 7-fold increase on last year)
- >500,000 students (a 5-fold increase on last year)
- Top paid instructor earnings exceed $1m in sales by October 2012
- Top 10 most popular paid instructors, 9 of which were individuals, earned >$1.6m in the last year as at May 2012
- Udemy collects 30% of a course's gross earnings

Recent News:

- December 2012 - Udemy raises $12m in Series B funding round led by Insight Venture Partners. Other investors include Lightbank, MHS Capital and Learn Capital
- November 2012 - Announced a strategic partnership with The Jack Welch Management Institute at Strayer University to offer online leadership development
- November 2012 – Launched iPad app

For Instructors

- Udemy offers world-class course creation tools for instructors to build a curriculum based on videos, slide presentations, PDFs, documents, articles, links, photos and live conferences
- Classes can be offered for free or using a paywall, where average prices lie between $20-$200, with the most popular classes attracting more than 500

For Students

- Courses cover a wide range of skill-based subjects, including business, technical, academic, creative and lifestyle
- Study times are self-paced, flexible and delivered on demand
- Renowned business leaders such as Yahoo’s CEO Marissa Mayer and Facebook’s CEO Mark Zuckerberg attract large audiences for their courses

Business Model

- Infinite Skills, the top paid instructor, uses Udemy to supplement its own e-Learning platform and now generates over $1m in sales, an important milestone in terms of demonstrating the value of the marketplace model
- Any content expert can be an instructor, including individuals or companies. This is unique to Udemy. Decoupling teaching from researching and rewarding on merit of teaching ability is in line with Sebastian Thrun’s (Co-Founder and CEO of Udacity) view of e-Learning
- Partnering with larger publishers and universities provides additional leverage in content and user acquisition
Distribution: Case Study 4

Immersive Learning: Learn in a Virtual City

Company Overview:
- 24-hours-a-day live English tuition for adults from 100+ countries
- Virtual learning environment requiring a PC, headset and broadband connection
- English City has scenarios for everyday life as well as specific/custom-based programmes including learning technical English for the Oil & Gas and Aviation sectors
- Detailed corporate reporting and student data analytics for tracking progress

Key Commentary:
“A brilliant idea: a multi-simulation, fully-immersive distance learning environment, providing online language learning to a global audience”
- Gavin Dudeney, English Language author and technology expert

“Languagelab is the most innovative language school in the world”
- Heike Philip, Co-creator of the EU funded Lancelot and Avalon projects

Case Study – TCO – (Joint Venture between Chevron & Kazakh Government)

TCO was looking for a partner to offer:
- Specialist English training specific to oil and gas
- 24/7 access to training from multiple locations
- A cost effective, high quality solution

Languagelab solution delivered:
- TCO employees improved on average 1 English level after only 19 hours study Languagelab.com
- Extremely high engagement: 60% of trainees studied for over 9 hours a month

Next Steps to Scale?
- Growing student and corporate base
- Expand sector expertise specialisation
- Launch new proprietary platform
- Build Vocational Training capability

Clients & Partners

Key Language Learning Providers

Source: Company data
Company Overview

- Fingerprint acts as a publishing network for 3rd party content creators in the mobile e-Learning space
- The company's technology platform is made available to 3rd party developers via an easy-to-use SDK\(^{(1)}\) that will allow the content network to quickly scale
- Offers 19 apps for downloading which have been played over 37m minutes
- The company aims to grow to over 50 apps in 2013 across a range of learning content including: language learning, reading, maths, science and creativity

Partners

- KidsSpring
- mightyplay
- \(\text{Education}^*\)
- Happy Blue Fish

Investors

- Reed Elsevier Ventures
- Corus Entertainment
- K2 Labs

Company Positioning

- The first learning and entertainment platform, providing sharing and engagement opportunities between kids and grown ups across mobile devices and the web. Targeting a pre-school audience
- The company promotes engagement opportunities between parents and children as well as the ability to monitor use by the children
- The company has received approximately $9m of venture funding to date
- Freemium model that has “in app” ancillary services that users are charged for

Children’s Content Providers

Major children’s content providers are likely to show interest in this market due to:

- High growth markets given growth in e-Learning and gamification sectors
- Rapid expansion of internet-connected devices increasing the opportunity for monetisation
- Existing market access, market power and protective IP rights

\(\text{Source: Company data}\)

\((1)\) Software Development Kit
Global Learning
The barriers for accessing e-Learning are limited only by the reach of telecom’s infrastructure. e-Learning has a global audience. The implication is that skill sets and standards will become more universal. Employers will be able to access a far greater range of human resources with ubiquitous qualifications.

Competition Creates Innovation
Increased competition from e-Learning produces the market dynamics to encourage greater innovation within education. The education market has historically been slow to develop due to the physical constraints of educational establishments and the top-down nature of state planning for education. The market will now change much more quickly.

Digitisation of Content
e-Learning requires digital content. This entails the digitisation of existing content and the creation of a new generation of interactive and personalised content. We are in a period of transition from old school content to the next generation; for a period there will be a need for the distribution of both forms of content.

Strong Corporate Demand
Corporate Training is a $200bn industry of which $26bn is represented by e-Learning. In Europe in 2011, 51% of companies delivered one training session via e-Learning to over 50% of their employees. In the US in 2011, 77% of corporates were using e-Learning. With corporate e-Learning market expected to double over the next 3 years, the opportunity is significant.

Immersive Learning
The ability to provide simulated work environments is just beginning and will provide a whole new generation of e-Learning opportunities to the corporate environment. Skills can be developed, monitored and assessed before being used in the workplace. Already the 3D modelling skills from the video games industry are linking up with immersive learning programmes.

Extending Distribution
Wireless connectivity is extending the reach of e-Learning. For example, South Korea, which has one of the highest rated education systems, aims to have wireless networks in all schools by 2015 together with all curriculum materials available in digital form. Other countries, most notably the US are keen to follow suit.
Pearson Case Study: a Leader in Education
Pearson Case Study: a Leader in Education

Company Overview
- World’s leading education company with over 36,000 employees in 70 countries
- Founded in 1844 and based in London
- The company generated revenues of £5.9bn and an EBIT margin of 16.1% in 2011
- Recently combined Penguin with Bertelsmann’s Random House to create the world’s largest publishing organisation

Group Structure

Pearson’s Strategic Positioning
- The world’s leading learning company
- Education contributed to 75% of FY 2011 revenue
- Digital contributed to 33% of FY 2011 revenue
- International presence in 70 countries
- Over $1bn of FY 2011 revenue from developing economies

Key Steps to Consolidate Strategic Positioning
- **Investment**: Invests heavily in organic growth and M&A. Since 2006, Pearson has invested £0.5bn in organic growth and £2.5bn in acquisitions
- **Technology**: Progressive transition to offering digital products and services, accessing larger and fast-growing technology-enabled content segments. Digital revenue has grown to 33% in 2011 from 20% in 2006
- **High Growth International Markets**: Continued focus on developing markets – in 2011, 11% of revenues were from developing companies ($1.0bn), representing a significant strategic focus that is not as evident in the other major educational players
- **Efficiency & Scale**: In 2011, Pearson achieved EBIT margins of 16% in large part by changing the business mix to increase exposure to more digital and service based businesses

Pearson’s Acquisition Roadmap

Source: Company data, Research reports, Capital IQ
Pearson has been an Active Acquirer to Build Its Education Division

**Key Points**

- Since 2006, Pearson has invested approximately £2.5bn in acquisitions and the market reaction has been positive to its increased activity in the e-Learning space.

- Pearson’s strategy has been to enter markets early and build scale particularly in fast-growing sub-categories, emerging economies and software-based offerings.

- Pearson is most advanced in its K-12 offerings. However, the company has invested across the whole e-Learning environment including content, LMS and analytics.
Pearson has also Delivered Organic Growth

<table>
<thead>
<tr>
<th>Company</th>
<th>Subsector</th>
<th>Business Description</th>
<th>Audience</th>
<th>2008 Students (m)</th>
<th>2011 Students (m)</th>
<th>2008 - 2011 CAGR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIMSweb</td>
<td>Formal Testing</td>
<td>Web-based assessment, data management, and reporting system used to predict likely performance in state tests</td>
<td>K-12</td>
<td>2.2</td>
<td>4.1</td>
<td>23%</td>
</tr>
<tr>
<td>Pearson Learning Studio</td>
<td>LMS</td>
<td>College-level LMS product, with 2.8m student users in 2011</td>
<td>Higher Education</td>
<td>1.1</td>
<td>2.8</td>
<td>37%</td>
</tr>
<tr>
<td>Pearson Access</td>
<td>Content</td>
<td>Online learning product available in a variety of subject areas in line with Higher Education courses</td>
<td>Higher Education</td>
<td>3.6</td>
<td>7.8</td>
<td>29%</td>
</tr>
<tr>
<td>mylabs</td>
<td>Formal Testing</td>
<td>Web-based tool that aims at empowering entire testing programmes, covering both paper and digital exams from a single user interface</td>
<td>K-12</td>
<td>1.0</td>
<td>5.7</td>
<td>79%</td>
</tr>
<tr>
<td>SuccessMaker</td>
<td>Content</td>
<td>Instructional software designed for elementary and middle school students</td>
<td>K-12</td>
<td>2.1</td>
<td>3.1</td>
<td>14%</td>
</tr>
<tr>
<td>Pearson SuccessNet</td>
<td>LMS</td>
<td>Classroom management tool that allows teachers to customize a curriculum through the use of Pearson digital content, school resources and third-party materials in order to meet regulatory requirements</td>
<td>K-12</td>
<td>3.7</td>
<td>6.2</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Company data, Research reports
Valuation and M&A Activity
Select Market Performances

Key Points

- We believe that software companies are a proxy for where e-Learning valuations will trend, particularly for SaaS/Cloud LMS providers. We have created a “Software Players” index to illustrate the relative performance of the educational market.

- Corporate Training companies have seen the strongest valuation improvement in the last 18 months. The Corporate Training market is a $200bn industry of which $26bn is e-Learning. e-Learning in this sector is expected to grow to approximately $32bn by 2015.

- US Post Secondary Education has suffered as the adverse economic climate has lead to reduced enrolment. DeVry, the largest by market cap, reported Q4 y-o-y revenue decline of 15.7% arising primarily from a decline in total undergraduate enrolment.
Valuation Over Time

Key Points

- As before, the Software Players are included to illustrate the valuation upside as e-Learning brings in SaaS/Cloud business models.

- Education Publisher valuations have been fairly consistent proving less volatile when compared to the others sectors.

- Corporate Training has started to achieve EV/LTM EBITDA multiples similar to those achieved by the Software Players.

- On an EV/LTM EBITDA basis, US Post-Secondary Education valuations have fallen dramatically since 2007 and remain low, due primarily to reduced student enrolment and strict regulatory environment.

Source: Capital IQ as at 31 December 2012
Note: The composition of the indices can be found in "Public Company Comparables" section starting on page 88.
Global e-Learning M&A Activity

**Total Deal Value and Volume of e-Learning M&A Transactions**
Since 2007 and above $20m

**Key Points**

- Since 2007, 61% of total targets were acquired by strategic buyers
- North America dominates activity by value and number of deals
- EV/EBITDA multiples for e-Learning have come down as the market has become more developed
- e-Learning maintains significant premium over traditional education
- Since 2007, Pearson has acquired 15 companies; 11 of them were acquired after 2010 and all were digital-based / e-Learning businesses

**Global Education M&A Volume by Sector Since 2007**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Distribution</th>
<th>Management Systems</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>61%</td>
<td>26%</td>
<td>13%</td>
</tr>
</tbody>
</table>

**Source:** Press releases, SEC filings, Capital IQ as at 31 December 2012

(i) Explained by one transaction namely, Pearson’s acquisition of eCollege.com
Recent e-Learning Fundraising Summary

Key Points

- The US is the most active global fundraising market for Education, accounting for 58% of total deals, with high-growth markets, India and China, trailing with 12% and 9% respectively.

- Europe accounts for 6% of total fundraising volume with the UK leading and accounting for 2.1% of total fundraising volume.

- Private companies are receiving significant attention and account for 82% of total fundraising activity by deal volume since 2007.

- The two largest fundraisings in 2012 were Desire2Learn / NEA, OMERS ($80m) and FoxyP2 / Insight, Redpoint, Flybridge, Kaszek ($43m).

Source: Capital IQ, as at 31 December 2012

(i) Refers to global equity investments where transaction values are disclosed and are above $1m
### Successful Fundraisings in Both Private & Public Markets

<table>
<thead>
<tr>
<th>Target</th>
<th>Select Investors</th>
<th>Company Overview</th>
<th>Year Founded</th>
<th>Employees</th>
<th>Domicile</th>
<th>Subsector</th>
<th>Date of Last Round / Amount Raised ($m)</th>
<th>Total Capital Raised To Date ($m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chegg</td>
<td>Foundation, KPCB,</td>
<td>Online textbook rental company</td>
<td>2003</td>
<td>300+</td>
<td>Distribution</td>
<td></td>
<td>May-12 / 2.4</td>
<td>192.1</td>
</tr>
<tr>
<td>2U</td>
<td>Bessemer, Highland</td>
<td>Partners with universities to build, administer, and market online degree programmes from traditional offline curricula</td>
<td>2005</td>
<td>80</td>
<td>Management Systems</td>
<td></td>
<td>Mar-12 / 26.1</td>
<td>91.2</td>
</tr>
<tr>
<td>Desire2Learn</td>
<td>NEA, OMERS, Pearson</td>
<td>SaaS LMS provider catering to K-12, Higher Education and corporates</td>
<td>2011</td>
<td>NA</td>
<td>Management Systems</td>
<td></td>
<td>Sep-12 / 80.0</td>
<td>80.0</td>
</tr>
<tr>
<td>Knewton</td>
<td>ACCEL, Bessemer, Pearson, PEARSON</td>
<td>Adaptive technology that personalises online learning content for each individual student</td>
<td>NA</td>
<td>NA</td>
<td>Content</td>
<td></td>
<td>Oct-11 / 54.0</td>
<td>54.0</td>
</tr>
<tr>
<td>Echo</td>
<td>Revolution, SoftBank Capital, Court Square Ventures</td>
<td>Provides a platform that creates, produces, manages and shares instructional content for students to review</td>
<td>2007</td>
<td>NA</td>
<td>Management Systems</td>
<td></td>
<td>Apr-12 / 85.8</td>
<td>85.8</td>
</tr>
<tr>
<td>Coursera</td>
<td>NEA, KPCB, Penn</td>
<td>Partners with the top universities in the world to offer courses online for anyone to take, for free</td>
<td>2008</td>
<td>270</td>
<td>Distribution</td>
<td></td>
<td>Apr-12 / 22.0</td>
<td>22.0</td>
</tr>
<tr>
<td>Udacity</td>
<td>Charles River Ventures, Andreessen Horowitz, WES</td>
<td>Provides free online-only computer science courses to a global audience</td>
<td>1999</td>
<td>300</td>
<td>Distribution</td>
<td></td>
<td>Oct-12 / 15.0</td>
<td>15.0</td>
</tr>
</tbody>
</table>

### While Access to Capital in the Public Markets Remains Resilient

<table>
<thead>
<tr>
<th>Target</th>
<th>Select Investors</th>
<th>Company Overview</th>
<th>Year Founded</th>
<th>Employees</th>
<th>Domicile</th>
<th>Subsector</th>
<th>Date of Last Round / Amount Raised ($m)</th>
<th>Total Capital Raised To Date ($m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>K1</td>
<td>Delaware, TCV,</td>
<td>Produces curriculum for online academic institutions</td>
<td>2000</td>
<td>3,300</td>
<td>Distribution</td>
<td></td>
<td>Apr-11 / 125.8</td>
<td>155.8</td>
</tr>
<tr>
<td>ePals</td>
<td>Acuity, TCV,</td>
<td>Provides worldwide social learning networks</td>
<td>2011</td>
<td>63</td>
<td>Management Systems</td>
<td></td>
<td>Sep-12 / 12.1</td>
<td>106.1</td>
</tr>
<tr>
<td>CarpeDiem</td>
<td>WELLS CAPITAL MANAGEMENT</td>
<td>Provides intervention curricula, educational technologies, professional services, and other research-based education solutions</td>
<td>2002</td>
<td>628</td>
<td>Distribution</td>
<td></td>
<td>Apr-11 / 20.0</td>
<td>70.0</td>
</tr>
</tbody>
</table>

*Source: Capital IQ, TechCrunch*
### Recent e-Learning Fundraising Across Europe & the US

#### Europe

<table>
<thead>
<tr>
<th>Date of Last Round</th>
<th>Capital Raised ($m)</th>
<th>Target</th>
<th>Investors</th>
<th>Company Overview</th>
<th>Year Founded</th>
<th>Domicile</th>
<th>Subsector</th>
<th>Total Capital Raised To Date ($m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov-12</td>
<td>5.1</td>
<td>memrise</td>
<td>NA</td>
<td>Online learning platform that combines the best insights from the art and science of memory</td>
<td>2010</td>
<td>🇬🇧</td>
<td>Distribution</td>
<td>6.2</td>
</tr>
<tr>
<td>Oct-12</td>
<td>4.6</td>
<td>busuu.com</td>
<td>PROfounders</td>
<td>Free online community for learning languages</td>
<td>2008</td>
<td>🇪🇸</td>
<td>Distribution</td>
<td>9.4</td>
</tr>
<tr>
<td>Jun-12</td>
<td>3.0</td>
<td>LinguaLeo</td>
<td>Runa Capital</td>
<td>Online language learning service using game mechanics to engage users into the learning process</td>
<td>NA</td>
<td>🇷🇺</td>
<td>Distribution</td>
<td>3.2</td>
</tr>
<tr>
<td>May-12</td>
<td>4.0</td>
<td>Cheebuk</td>
<td>Runa Capital</td>
<td>Educational platform that connects students, teachers, parents and school administrators</td>
<td>NA</td>
<td>🇷🇺</td>
<td>Distribution</td>
<td>6.7</td>
</tr>
<tr>
<td>May-12</td>
<td>3.6</td>
<td>Mindshapes</td>
<td>Index Ventures</td>
<td>Interactive learning company that makes virtual worlds and apps across the Internet and mobile devices designed for kids ages 2-12</td>
<td>2010</td>
<td>🇬🇧</td>
<td>Content</td>
<td>9.0</td>
</tr>
</tbody>
</table>

#### United States

<table>
<thead>
<tr>
<th>Date of Last Round</th>
<th>Capital Raised ($m)</th>
<th>Target</th>
<th>Investors</th>
<th>Company Overview</th>
<th>Year Founded</th>
<th>Domicile</th>
<th>Subsector</th>
<th>Total Capital Raised To Date ($m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec-12</td>
<td>89.5</td>
<td>nook</td>
<td>PEARSON</td>
<td>The joint venture between Barnes &amp; Noble and Microsoft that runs the US retailer’s Nook e-Reader division, its e-Book store and its 674 college bookstores</td>
<td>2012</td>
<td>🇺🇸</td>
<td>Content</td>
<td>89.5</td>
</tr>
<tr>
<td>Dec-12</td>
<td>20.0</td>
<td>Grockit</td>
<td>Benchmark</td>
<td>Develops online social, collaborative, and personal learning programs</td>
<td>2007</td>
<td>🇺🇸</td>
<td>Distribution</td>
<td>44.7</td>
</tr>
<tr>
<td>Dec-12</td>
<td>12.0</td>
<td>Udemy</td>
<td>Insight Venture Partners</td>
<td>A leading video-based online marketplace for skill-based and lifelong learning</td>
<td>2010</td>
<td>🇺🇸</td>
<td>Distribution</td>
<td>16.0</td>
</tr>
<tr>
<td>Nov-12</td>
<td>9.8</td>
<td>General Assembly</td>
<td>VegaTechFund</td>
<td>Global network of campuses for individuals seeking an education in technology, business, and design</td>
<td>2011</td>
<td>🇺🇸</td>
<td>Distribution</td>
<td>14.1</td>
</tr>
<tr>
<td>Oct-12</td>
<td>15.0</td>
<td>Udacity</td>
<td>Charles River Venture Partners, ANDREessen Horowitz</td>
<td>Offers online courses focusing on artificial intelligence and robotics</td>
<td>2011</td>
<td>🇺🇸</td>
<td>Distribution</td>
<td>21.1</td>
</tr>
</tbody>
</table>

Source: Capital IQ, TechCrunch
Buyer Landscape and Strategic Rationale
Buyers & Investors with an Appetite for e-Learning

**Strategic Acquirers & Corporate VCs**

- Among the list of potential e-Learning acquirers, Pearson has the largest M&A appetite, spending over £2.5bn in acquisitions since 2006.
- Cengage Learning was rumoured to have placed a bid for McGraw Hill's education business in Aug 2012 and acquired Houghton Mifflin Company’s College Division for c.£372m in Mar 2007.
- Beyond pure-play education buyers, technology conglomerates, enterprise software companies and vertical-specific players have shown interest in e-Learning M&A.

**Incubators, Non-Profit Venture Firms and VCs**

- North American investors leading the way. Opportunity for investment across Europe and developing countries. Over 3,000 e-Learning companies in Europe.
- Beyond traditional VCs that invest across various industries, there has been an emergence of non-profit philanthropy venture firms, VCs and incubators solely focusing on the education industry.

**Private Equity Funds**

- Bain Capital and Apollo Global both placed bids for McGraw Hill’s education business in August 2012 and have acquired in the past Skillsoft (2010) and Connections Education (2011), respectively.
- Selected high profile PE transactions include Providence’s £1.2bn take-private of Blackboard and Apax Partners and OMERS’ £3.9bn acquisition of Thomson Learning.
Strategic Rationale

1. **Demand in the Market**
   Both in the corporate training and educational markets, research consistently confirms an increasing demand for e-Learning solutions. In 1995, only 4% US corporations were using online learning - the figure today is 77%. Demand elsewhere in the world is also expected to intensify.

2. **Available Infrastructure**
   Internet penetration, mobile connectivity and data storage are sufficiently pervasive at a price point to allow e-Learning to be a highly cost-efficient solution. The timing is right for a big expansion in the use of e-Learning.

3. **More Effective Outcomes**
   Content for e-Learning can deliver levels of personalised learning materials and environments that have not been possible previously. Engaging interactive content is able deliver more effective outcomes both at school and in the workplace. e-Learning analytics provide the data insight to demonstrate the return on investment.

4. **Investment and Consolidation**
   With c.3,000 active e-Learning companies in Europe, the entrepreneurial response to the market demand is creating a range of new companies and opportunities for investment and strategic acquisitions for established players. The e-Learning ecosystem is healthy: large strategic players making acquisitions, capital markets responding and the availability of VC funding.

5. **Government Initiatives**
   Governments are the largest buyers of education services. The cost of education in developed economies such as the US has gone up significantly over the last 30 years but with little impact on education results. e-Learning is one of the more effective ways of addressing this issue, both in terms of cost and results.

6. **The Time is Now**
   The education and training sectors are experiencing a paradigm shift. The window for new businesses and business models is now open. Over the next 5 years the education and training sectors will change dramatically.
**IBIS Capital’s Lessons for the Future**

<table>
<thead>
<tr>
<th>#</th>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Free Content</td>
<td>The rise of the MOOCs and other peer-to-peer platforms will result in large amounts of educational content becoming freely available. Business models will focus on delivering chargeable premium bespoke and ancillary services.</td>
</tr>
<tr>
<td>2</td>
<td>Personalisation</td>
<td>Learning will become increasingly personalised with e-Learning harnessing big data analytics to provide interactive learning that is tailored to meet the individual’s learning patterns and aptitude.</td>
</tr>
<tr>
<td>3</td>
<td>Flipped Classrooms</td>
<td>Teaching will change such that programme modules will be reviewed by students to build their knowledge outside of the normal classroom environment. The classroom will become the arena for face-to-face discussion of individual requirements and open discussion.</td>
</tr>
<tr>
<td>4</td>
<td>e-Learning in Every Company</td>
<td>The need to improve skills, meet regulatory requirements and manage training costs will result in e-Learning being used across the corporate spectrum. The ability to monitor and manage training performance will provide the corporate accountability to assess ROI.</td>
</tr>
<tr>
<td>5</td>
<td>Accreditation and Brands</td>
<td>As the range of e-Learning offerings expand, the need for qualifications and standards to be recognised will become increasingly important. The accreditation will become unified over time and educational brands will reduce to a small number of global players.</td>
</tr>
<tr>
<td>6</td>
<td>Lifelong Learning</td>
<td>The education process will continue throughout an individual’s life. Training and education will be on hand to adjust to changing workplace requirements and career choices. Individuals will maintain a live log of their learning experiences for their entire life.</td>
</tr>
</tbody>
</table>
# 5 Key Disruptors You Want to Learn About

<table>
<thead>
<tr>
<th>Company</th>
<th>Key Statistics</th>
<th>Company Overview</th>
<th>Investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Udacity</td>
<td>Year founded: 2011 Capital raised: $21.1m</td>
<td><strong>Massive Online Open Course (MOOC)</strong> 18 online-only courses using rich media, which have been translated to over 10 languages and being taught to 800,000 enrolled students in &gt;190 countries</td>
<td>Andreessen Horowitz Charles River Ventures</td>
</tr>
<tr>
<td>2 Knewton</td>
<td>Year founded: 2008 Capital raised: $54.0m</td>
<td><strong>Adaptive Learning Platform</strong> Analyzes data about performance from students to adapt learning materials to meet individual requirements</td>
<td>Bessemer First Round Capital ACCEL Partners</td>
</tr>
<tr>
<td>3 Quipper</td>
<td>Year founded: 2010 Capital raised: $4.4m</td>
<td><strong>Serious Gaming / Gamification</strong> Learning apps that provide an iterative process within an entertainment format to build knowledge for education and corporate training</td>
<td>Benesse ATOMICO Globis Capital Partners</td>
</tr>
<tr>
<td>4 LanguageLab.com</td>
<td>Year founded: 2005 Capital raised: $0.5m</td>
<td><strong>Immersive Language Learning</strong> 24-hours-a-day live English tuition for adults from &gt;100 countries which uses a virtual learning environment</td>
<td>Avonmore Developments Huda Associates Private Investors</td>
</tr>
<tr>
<td>5 Khan Academy</td>
<td>Year founded: 2006 Capital raised: $5.0m</td>
<td><strong>OpenCourseware (OCW)</strong> Online micro lectures via 3,600 video across a variety of subjects that has delivered c.215m lessons to a global audience</td>
<td>Bill &amp; Melinda Gates Foundation Google Private Investors</td>
</tr>
</tbody>
</table>

---

1 Source: Dow Jones Venture Source, Company data
(1) Client of IBIS Capital
Appendix
Learning Management Systems (LMS)
Learning Management Systems for Education and Corporates

Key Points

- LMS is a software application that is typically used to:
  - centralise and automate administration
  - assemble and deliver learning content rapidly
  - consolidate training initiatives on a scalable web-based platform
  - support portability and standards
  - personalise content and reusable learning objects (RLO)
  - deliver online training and webinars
  - automate assessment, analytics and reporting

- Estimated that $1.9bn will be spent globally on LMS in 2013

- Over 500 providers in the market, of which only 5 have more than a 4% market share: Cornerstone-OnDemand, Oracle, SAP, Saba and SumTotal
The Evolution of the Learning Management System Market

The global LMS market is expected to grow at a 12.0% CAGR from 2009 to 2013.

Growth in developed markets is estimated to be around the low teens with certain developing markets surpassing the 20.0% range.

LMS providers have seen their customer base shift, increases in the number of customers with 1,000 employees and less (from 28 percent in 2009 to 34 percent in 2012) and a decrease in the number of customers with 10,000 or more employees (from 29 percent in 2009 to 24 percent in 2012).

European survey indicates that 75% of companies currently use e-Learning to deliver training on core professional skills as well as Health and Safety and Compliance training (1)

---

(1) CrossKowlegde, Fefaur and Ipsos
## The Transformation of Learning Management

<table>
<thead>
<tr>
<th>Category</th>
<th>First Generation LMS</th>
<th>Second Generation LMS</th>
<th>Next Generation (2012-2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophy</td>
<td>Centralised (corporate university)</td>
<td>Both modularised and integrated with talent management processes or highly specialised (e.g. healthcare, with primary usage being learning management). At this point, the market becomes fragmented</td>
<td>Fused with work (“LMS” as we knew it is absorbed and “socialised”, along with everything else) and/or highly specialised (e.g. sales enablement, extended enterprise training, etc.)</td>
</tr>
<tr>
<td>Analytics</td>
<td>Simple reports measuring completions</td>
<td>Dashboards with business relevant data (e.g. skills, gaps, competencies)</td>
<td>“Big data” with complex metrics that extend outside the enterprise</td>
</tr>
<tr>
<td>Audience</td>
<td>Internal (full-time employees)</td>
<td>Internal and other workers (full-time, part-time and contingent)</td>
<td>Extended network (e.g. candidates, employees, alumni, customers, partners, etc.)</td>
</tr>
<tr>
<td>Collaboration</td>
<td>One-to-one, one-to-many interactions (e.g. email, IM)</td>
<td>Internal many-to-many interactions (e.g. Wiki, social interactivities in learning; real-time micro-communication tied to learning activities)</td>
<td>Inherent, built in collaboration and communications tools; fusion of internal and external learning enabled by social media and enhanced security requirements</td>
</tr>
<tr>
<td>Delivery Model</td>
<td>On-premise, hosted or outsourced</td>
<td>On-premise, hosted or outsourced, Software as a Service</td>
<td>Support for cloud-to-cloud and cloud-to-on-premise integration</td>
</tr>
<tr>
<td>Delivery Channels</td>
<td>Instructor-led, face-to-face and online synchronous learning; self-paced (asynchronous) e-Learning and blending of the two</td>
<td>Addition of simulations, advanced interactivity, multi-media and social interactivities</td>
<td>Addition of game mechanics, high fidelity video, presence indicators, integrated social networks for uniting work and learning</td>
</tr>
<tr>
<td>Device Support</td>
<td>Delivered to desktop, laptop (online, offline or CD)</td>
<td>Delivered to desktop, laptop, smartphones, netbooks (online, anytime)</td>
<td>Self-service data delivery from any screen or surface (e.g. desktop, laptop, mobile devices)</td>
</tr>
<tr>
<td>User Experience</td>
<td>Course and resource management, catalogues, curricula</td>
<td>Search and discovery, decision support, content management, integration</td>
<td>Fully personalised adaptive learning experiences</td>
</tr>
</tbody>
</table>

Source: Bersin & Associates
US Higher Education Online vs. Offline Comparison
Online Versus Offline: US Higher Education Universe

Key Points

- A mix of traditional universities and online university options including: OpenCourseWare (OCW), Massive Online Open Courses (MOOCs), online accredited courses and online courses.

- 6.5m students studied at least one online course in 2011 which is expected to grow at a faster rate than student enrolment.

- Private not-for-profits play catch-up to implement blended learning capabilities.

Is Online Education Critical to the Long-term Strategy of the institution?\(^{(1)}\) (%)

---


Note: The competitive landscape includes a selection higher education institutions.

\(^{(1)}\) “In plan” indicates that their strategic plan includes online education as a target.
Online Versus Offline: US Higher Education Peers

**Key Points**

- Online institutions have a lower revenue per student due to lower tuition prices than those at physical institutions.

- Whilst online providers of higher education generate lower revenue and EBIT per student, their EBIT margin has been consistently higher than that of offline providers.

- Apollo has one of the highest EBIT per students, and by far the highest EBIT per online student, likely due to its scale and higher cost per credit.

---

**Revenue per Student**

<table>
<thead>
<tr>
<th>Year</th>
<th>Average</th>
<th>Online Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>10.0</td>
<td></td>
</tr>
<tr>
<td>2005</td>
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<tr>
<td>2010</td>
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<tr>
<td>2011</td>
<td>10.0</td>
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</tr>
</tbody>
</table>

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**EBIT per Student**

<table>
<thead>
<tr>
<th>Year</th>
<th>Average</th>
<th>Online Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>2.0</td>
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</tr>
<tr>
<td>2005</td>
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</tr>
<tr>
<td>2006</td>
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<tr>
<td>2007</td>
<td>2.0</td>
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<td>2008</td>
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<td>2009</td>
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<tr>
<td>2010</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>2.0</td>
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</tr>
</tbody>
</table>

---

**EBIT Margin**

<table>
<thead>
<tr>
<th>Year</th>
<th>Average</th>
<th>Online Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>20%</td>
<td></td>
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<tr>
<td>2007</td>
<td>20%</td>
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<tr>
<td>2008</td>
<td>20%</td>
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<tr>
<td>2009</td>
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<tr>
<td>2010</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>20%</td>
<td></td>
</tr>
</tbody>
</table>
Online Versus Offline: US Higher Education Peers (Cont’d)

Key Points

- Rent expense per student is lower for online institutions. Rent as a percentage of revenue for online schools is about 3% of revenue, versus 5% for offline based schools.

- Student acquisition costs have risen c.$1,000 since 2008 to around $4,000 per new enrolment.

- Advertising is typically about 50% of sales and marketing costs, with the other 50% made up largely of admission counsellor costs.

Sales & Marketing per New Enrolment

General & Administration (% of Revenue)

Rent (% of Revenue)

Source: IBIS Capital analysis, Research reports
Korean Government Driving Mass Adoption of e-Learning
Government Encourage Mass Adoption of e-Learning in Korea

Korea’s e-Learning Market Has Been Growing Steadily

Key Points

- The Korean e-Learning market has grown at a steady 9% CAGR from 2004-2010
- The government is expected to invest KRW2.2tn in industry over 2012-2015 to help boost adoption of e-Learning across the country
- Education service providers are working hard to build a stronger presence in the content business, which has grown at a 2005-2009 CAGR of 24%
- Strategic players are seeking horizontal and vertical integration to consolidate market power and create synergies along the value chain, e.g. content, device distribution, media, and character businesses

Smart Education Outlook (2012-2015)

<table>
<thead>
<tr>
<th>Plan</th>
<th>2012 Application</th>
<th>2012-2015 Proliferation and stabilisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloud education</td>
<td>Sejong City Office of Education to establish smart school model</td>
<td>System in 30% of schools by 2013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>System in all schools by 2015</td>
</tr>
<tr>
<td>Digital textbook development</td>
<td>Digital textbooks are the centre of smart education model</td>
<td>Books developed for middle schools by 2014 and elementary schools by 2014-2015</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Books developed for high schools by 2015</td>
</tr>
<tr>
<td>Online classes</td>
<td>System organisation</td>
<td>Online examination of academic ability by 2013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Online scholastic achievement test by 2015</td>
</tr>
</tbody>
</table>
Global Language Learning Opportunity
Global Language Learning Opportunity

Key Points

- The Global Language Learning market was $58.2bn in 2011
- Language Learning usually starts in the classroom, however, is now becoming more relevant for adults as language skills are becoming increasingly important for employee prospects.
- English Learning is a $35.9bn marketplace accounting for 62% of the total market size of which, $1.3bn is digital English language learning.
- Digital English language learning revenues are heavily concentrated in 4 segments: Self-paced e-Learning, e-Books, collaboration-based learning and via mobile.
- Malaysia, China, Romania, Ukraine, Brazil, Poland, India and Russia are all key high growth areas with 2011-2016 CAGRS of above 20% for Digital English.

Source: Company data, Ambient Insight research

(i) Excludes language services generated from localisation, interpretation, translation and other services.
Public Company Comparables
## Public Company Comparables

### Education Publishers

<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Pearson</td>
<td>14.65</td>
<td>11,751</td>
<td>1,690</td>
<td>13,441</td>
<td>4.0%</td>
<td>4.9%</td>
<td>17.4%</td>
<td>17.7%</td>
<td>1.8x</td>
<td>1.7x</td>
</tr>
<tr>
<td>McGraw-Hill</td>
<td>41.46</td>
<td>11,515</td>
<td>(35)</td>
<td>11,480</td>
<td>6.6%</td>
<td>4.9%</td>
<td>26.3%</td>
<td>29.8%</td>
<td>2.3x</td>
<td>2.2x</td>
</tr>
<tr>
<td>Washington Post Company</td>
<td>276.99</td>
<td>2,044</td>
<td>(207)</td>
<td>1,837</td>
<td>(6.1%)</td>
<td>(6.2%)</td>
<td>11.0%</td>
<td>10.3%</td>
<td>0.6x</td>
<td>0.7x</td>
</tr>
<tr>
<td>John Wiley &amp; Sons</td>
<td>29.53</td>
<td>1,776</td>
<td>464</td>
<td>2,240</td>
<td>0.8%</td>
<td>0.5%</td>
<td>10.9%</td>
<td>20.9%</td>
<td>1.7x</td>
<td>1.7x</td>
</tr>
<tr>
<td>Newscoorp</td>
<td>19.35</td>
<td>45,147</td>
<td>3,375</td>
<td>48,522</td>
<td>3.9%</td>
<td>3.1%</td>
<td>20.5%</td>
<td>21.6%</td>
<td>1.9x</td>
<td>1.8x</td>
</tr>
<tr>
<td>Scholastic</td>
<td>22.42</td>
<td>710</td>
<td>79</td>
<td>631</td>
<td>(3.2%)</td>
<td>(3.3%)</td>
<td>10.0%</td>
<td>9.6%</td>
<td>0.4x</td>
<td>0.4x</td>
</tr>
<tr>
<td>Benesse</td>
<td>31.48</td>
<td>3,060</td>
<td>(970)</td>
<td>2,090</td>
<td>5.6%</td>
<td>5.8%</td>
<td>12.5%</td>
<td>13.3%</td>
<td>0.5x</td>
<td>0.5x</td>
</tr>
</tbody>
</table>

| Median                   | 3.9%        | 3.1%       | 17.4%    | 17.7%       | 1.7x                    | 1.7x               | 8.3x             | 7.4x             | 16.0x       | 14.4x   |
| Mean                     | 1.7%        | 1.4%       | 16.8%    | 17.6%       | 1.3x                    | 1.3x               | 7.2x             | 6.8x             | 17.2x       | 16.4x   |

### US Online Education

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Apollo Group</td>
<td>15.87</td>
<td>1,784</td>
<td>(422)</td>
<td>1,362</td>
<td>(8.2%)</td>
<td>(9.2%)</td>
<td>20.3%</td>
<td>19.0%</td>
<td>0.4x</td>
<td>0.5x</td>
</tr>
<tr>
<td>Copella Education</td>
<td>21.41</td>
<td>272</td>
<td>(89)</td>
<td>183</td>
<td>(1.8%)</td>
<td>(2.0%)</td>
<td>21.1%</td>
<td>21.1%</td>
<td>0.6x</td>
<td>0.6x</td>
</tr>
<tr>
<td>Strayer Education</td>
<td>42.60</td>
<td>487</td>
<td>44</td>
<td>531</td>
<td>(2.1%)</td>
<td>(6.1%)</td>
<td>24.3%</td>
<td>22.6%</td>
<td>1.2x</td>
<td>1.3x</td>
</tr>
<tr>
<td>Bridgepoint Education</td>
<td>7.81</td>
<td>422</td>
<td>(246)</td>
<td>176</td>
<td>(11.9%)</td>
<td>(4.0%)</td>
<td>24.0%</td>
<td>19.0%</td>
<td>0.2x</td>
<td>0.3x</td>
</tr>
<tr>
<td>Grand Canyon Education</td>
<td>17.80</td>
<td>796</td>
<td>(36)</td>
<td>759</td>
<td>12.1%</td>
<td>15.3%</td>
<td>26.8%</td>
<td>27.9%</td>
<td>2.0x</td>
<td>1.8x</td>
</tr>
<tr>
<td>American Public Education</td>
<td>27.40</td>
<td>484</td>
<td>(77)</td>
<td>407</td>
<td>11.8%</td>
<td>15.8%</td>
<td>25.0%</td>
<td>25.9%</td>
<td>1.7x</td>
<td>1.5x</td>
</tr>
</tbody>
</table>

| Median                   | (1.9%)      | (3.0%)     | 24.1%    | 21.9%       | 0.9x                    | 0.9x               | 3.9x             | 4.2x             | 9.9x        | 10.7x   |
| Mean                     | (0.0%)      | 1.6%       | 23.6%    | 22.6%       | 1.0x                    | 1.0x               | 4.2x             | 4.1x             | 10.4x       | 10.5x   |
## Public Company Comparables

### K-12 Education

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<thead>
<tr>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Cambium Learning</td>
<td>0.84</td>
<td>41</td>
<td>109</td>
<td>150</td>
<td>1.4% (7.9%)</td>
<td>13.8%</td>
<td>1.4x</td>
<td>9.9x</td>
<td>1.4x</td>
<td>35.7x</td>
<td>n/m</td>
</tr>
<tr>
<td>K12, Inc.</td>
<td>15.50</td>
<td>557</td>
<td>(50)</td>
<td>508</td>
<td>18.4% 22.3%</td>
<td>10.9%</td>
<td>0.9x</td>
<td>7.9x</td>
<td>0.9x</td>
<td>35.7x</td>
<td>25.2x</td>
</tr>
<tr>
<td>School Specialty</td>
<td>0.72</td>
<td>14</td>
<td>220</td>
<td>234</td>
<td>1.5% (2.1%)</td>
<td>6.8%</td>
<td>0.4x</td>
<td>6.4x</td>
<td>0.4x</td>
<td>n/m</td>
<td>1.1x</td>
</tr>
</tbody>
</table>

### Median

- Revenue Growth: 1.5% (2.1%)
- EBITDA Margin: 10.9% 13.2%
- EV / Revenue: 0.9x 0.7x
- EV / EBITDA: 7.9x 5.7x
- P / E: 35.7x 13.1x

### Mean

- Revenue Growth: 7.4% 4.1%
- EBITDA Margin: 10.5% 12.4%
- EV / Revenue: 0.9x 0.8x
- EV / EBITDA: 8.1x 6.5x
- P / E: 35.7x 13.1x

### US Post-Secondary Education

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<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Education Management</td>
<td>3.32</td>
<td>414</td>
<td>972</td>
<td>1,385</td>
<td>(6.1%) (6.9%)</td>
<td>16.6%</td>
<td>0.7x</td>
<td>4.2x</td>
<td>n/m</td>
<td>8.8x</td>
<td></td>
</tr>
<tr>
<td>ITT</td>
<td>13.13</td>
<td>306</td>
<td>(26)</td>
<td>280</td>
<td>(16.9%) (15.1%)</td>
<td>27.0%</td>
<td>0.3x</td>
<td>1.1x</td>
<td>1.8x</td>
<td>2.1x</td>
<td>3.8x</td>
</tr>
<tr>
<td>DeVry</td>
<td>18.00</td>
<td>1,142</td>
<td>(190)</td>
<td>952</td>
<td>0.7% (2.5%)</td>
<td>16.9%</td>
<td>0.6x</td>
<td>1.6x</td>
<td>3.6x</td>
<td>3.4x</td>
<td>11.0x</td>
</tr>
<tr>
<td>Corinthian Colleges</td>
<td>1.86</td>
<td>159</td>
<td>56</td>
<td>216</td>
<td>2.6% (0.9%)</td>
<td>8.1%</td>
<td>0.2x</td>
<td>2.2x</td>
<td>2.0x</td>
<td>9.6x</td>
<td>6.5x</td>
</tr>
<tr>
<td>Universal Technical Institute</td>
<td>7.61</td>
<td>190</td>
<td>(74)</td>
<td>116</td>
<td>(2.4%) (4.9%)</td>
<td>8.4%</td>
<td>0.4x</td>
<td>4.4x</td>
<td>4.1x</td>
<td>30.0x</td>
<td>35.5x</td>
</tr>
<tr>
<td>Lincoln Educational Services</td>
<td>4.24</td>
<td>97</td>
<td>12</td>
<td>108</td>
<td>(1.8%) (11.2%)</td>
<td>5.3%</td>
<td>0.3x</td>
<td>6.6x</td>
<td>5.2x</td>
<td>n/m</td>
<td>n/m</td>
</tr>
<tr>
<td>Career Education</td>
<td>2.66</td>
<td>179</td>
<td>(283)</td>
<td>104</td>
<td>(17.3%) (19.4%)</td>
<td>0.3%</td>
<td>n/m</td>
<td>n/m</td>
<td>n/m</td>
<td>33.9x</td>
<td>n/m</td>
</tr>
<tr>
<td>National American University</td>
<td>2.92</td>
<td>75</td>
<td>(13)</td>
<td>61</td>
<td>10.6% 11.5%</td>
<td>12.3%</td>
<td>0.6x</td>
<td>5.1x</td>
<td>3.7x</td>
<td>15.1x</td>
<td>9.7x</td>
</tr>
</tbody>
</table>

### Median

- Revenue Growth: (2.1%) (5.9%)
- EBITDA Margin: 10.4% 12.2%
- EV / Revenue: 0.4x 0.4x
- EV / EBITDA: 4.2x 4.1x
- P / E: 11.0x 9.3x

### Mean

- Revenue Growth: (4.0%) (6.2%)
- EBITDA Margin: 11.9% 11.2%
- EV / Revenue: 0.4x 0.5x
- EV / EBITDA: 3.9x 7.4x
- P / E: 13.6x 12.4x

Source: Capital IQ as at 31 December 2012

Note: The figures above have been calendarised to December year end and have not been adjusted for recent acquisitions, share buybacks or dividends.
## Public Company Comparables

<table>
<thead>
<tr>
<th>Company</th>
<th>Share Price</th>
<th>Market Cap</th>
<th>Net Debt</th>
<th>EV</th>
<th>Revenue Growth</th>
<th>EBITDA Margin</th>
<th>EV / Revenue</th>
<th>EV / EBITDA</th>
<th>P / E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2012-13</td>
<td>2011-13</td>
<td>2012</td>
<td>2013</td>
<td></td>
</tr>
<tr>
<td>Cornerstone OnDemand</td>
<td>22.40</td>
<td>1,131 (46)</td>
<td>1,085</td>
<td>44.4%</td>
<td>52.8% (8.3%) (0.1%)</td>
<td>n/m</td>
<td>8.4x</td>
<td>n/m</td>
<td>n/m</td>
</tr>
<tr>
<td>Check Point Software</td>
<td>36.13</td>
<td>7,400 (1,100)</td>
<td>6,300</td>
<td>7.8%</td>
<td>7.9% 59.6% 58.5%</td>
<td>6.2x</td>
<td>5.7x</td>
<td>10.4x</td>
<td>9.8x</td>
</tr>
<tr>
<td>SAP</td>
<td>60.79</td>
<td>72,496 (280)</td>
<td>72,216</td>
<td>11.6%</td>
<td>13.2% 33.9% 35.4%</td>
<td>4.4x</td>
<td>4.0x</td>
<td>13.0x</td>
<td>11.2x</td>
</tr>
<tr>
<td>Concur Tech</td>
<td>51.21</td>
<td>2,820 (191)</td>
<td>2,629</td>
<td>25.0%</td>
<td>25.3% 14.7% 22.5%</td>
<td>7.4x</td>
<td>5.9x</td>
<td>n/m</td>
<td>26.4x</td>
</tr>
<tr>
<td>Oracle</td>
<td>25.27</td>
<td>119,643 (10,571)</td>
<td>109,072</td>
<td>5.2%</td>
<td>4.3% 47.6% 49.5%</td>
<td>3.8x</td>
<td>3.6x</td>
<td>8.0x</td>
<td>7.3x</td>
</tr>
<tr>
<td>Microsoft</td>
<td>20.26</td>
<td>170,500 (40,712)</td>
<td>129,788</td>
<td>8.6%</td>
<td>7.8% 41.5% 41.4%</td>
<td>2.2x</td>
<td>2.0x</td>
<td>5.4x</td>
<td>5.0x</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.1%</td>
<td>10.6%</td>
<td>37.7%</td>
<td>38.4%</td>
<td>4.4x</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17.1%</td>
<td>18.6%</td>
<td>31.5%</td>
<td>34.5%</td>
<td>4.8x</td>
</tr>
</tbody>
</table>

### Corporate Training

<table>
<thead>
<tr>
<th>Company</th>
<th>Share Price</th>
<th>Market Cap</th>
<th>Net Debt</th>
<th>EV</th>
<th>Revenue Growth</th>
<th>EBITDA Margin</th>
<th>EV / Revenue</th>
<th>EV / EBITDA</th>
<th>P / E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2012-13</td>
<td>2011-13</td>
<td>2012</td>
<td>2013</td>
<td></td>
</tr>
<tr>
<td>Franklin Covey</td>
<td>9.78</td>
<td>178</td>
<td>18</td>
<td>196</td>
<td>10.0%</td>
<td>8.6%</td>
<td>14.7%</td>
<td>17.0%</td>
<td>1.5x</td>
</tr>
<tr>
<td>GP sStrategies Corp</td>
<td>15.66</td>
<td>299 (10)</td>
<td>289</td>
<td>9.7%</td>
<td>14.5%</td>
<td>11.0%</td>
<td>11.5%</td>
<td>1.0x</td>
<td>0.9x</td>
</tr>
<tr>
<td>Learning Tree</td>
<td>4.00</td>
<td>53 (24)</td>
<td>29</td>
<td>n/a</td>
<td>n/a</td>
<td>8.2%</td>
<td>n/a</td>
<td>0.3x</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.8%</td>
<td>11.6%</td>
<td>11.0%</td>
<td>14.2%</td>
<td>1.0x</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.8%</td>
<td>11.6%</td>
<td>11.3%</td>
<td>14.2%</td>
<td>0.9x</td>
</tr>
</tbody>
</table>

Source: Capital IQ as at 31 December 2012

Note: The figures above have been calendarised to December year end and have not been adjusted for recent acquisitions, share buybacks or dividends.
Transaction Comparables
## e-Learning M&A Transactions

Since 2011

<table>
<thead>
<tr>
<th>Transaction Date</th>
<th>Target</th>
<th>Acquirer</th>
<th>Strategic vs. Financial Acquirer</th>
<th>Target Subsector</th>
<th>Target (e-Learning vs. Traditional)</th>
<th>Target HQ (Country)</th>
<th>Target Business Description</th>
<th>Transaction Value (£m)</th>
<th>Implied EV / EBITDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov-12</td>
<td>McGraw-Hill Education</td>
<td>Apollo Global Management</td>
<td>Financial</td>
<td>Content</td>
<td>Traditional</td>
<td>US</td>
<td>Offers educational materials and learning solutions for students, instructors, professionals and institutions worldwide</td>
<td>2,747</td>
<td>7.1x</td>
</tr>
<tr>
<td>Oct-12</td>
<td>EmbanetCompass</td>
<td>Pearson</td>
<td>Strategic</td>
<td>Management Systems</td>
<td>e-Learning</td>
<td>US</td>
<td>Catalogue of research based education and clinical assessment products and publishes textbooks and online learning materials</td>
<td>650</td>
<td>NA</td>
</tr>
<tr>
<td>Oct-12</td>
<td>Deltak edu</td>
<td>John Wiley &amp; Sons</td>
<td>Strategic</td>
<td>Management Systems</td>
<td>e-Learning</td>
<td>US</td>
<td>Designs and develops online learning and higher education programmes</td>
<td>220</td>
<td>NA</td>
</tr>
<tr>
<td>Sep-12</td>
<td>Chelsea Independent College</td>
<td>Sovereign Capital Partners</td>
<td>Financial</td>
<td>Distribution</td>
<td>Traditional</td>
<td>UK</td>
<td>Provides classes for A level, GCSE courses and many other courses in London</td>
<td>48</td>
<td>NA</td>
</tr>
<tr>
<td>Aug-12</td>
<td>Kenexa</td>
<td>IBM</td>
<td>Strategic</td>
<td>Management Systems</td>
<td>e-Learning</td>
<td>US</td>
<td>Provides SaaS solutions that enable organisations to recruit, retain and develop employees</td>
<td>1,397</td>
<td>NM</td>
</tr>
<tr>
<td>Aug-12</td>
<td>Explore Learning</td>
<td>Graphite Capital Management</td>
<td>Financial</td>
<td>Distribution</td>
<td>Traditional</td>
<td>UK</td>
<td>Offers Mathematics and English tutorial services in the UK</td>
<td>48</td>
<td>NA</td>
</tr>
<tr>
<td>Aug-12</td>
<td>Campus Labs</td>
<td>Higher One Holdings</td>
<td>Strategic</td>
<td>Management Systems</td>
<td>e-Learning</td>
<td>US</td>
<td>Operates as a platform and service provider for assessment in higher education primarily in the North America</td>
<td>41</td>
<td>NA</td>
</tr>
<tr>
<td>Jun-12</td>
<td>Active Internet Technologies</td>
<td>Spectrum Equity Investors</td>
<td>Financial</td>
<td>Management Systems</td>
<td>e-Learning</td>
<td>US</td>
<td>Provides web-based software and services for schools and educational organisations in the US and internationally</td>
<td>55</td>
<td>NA</td>
</tr>
<tr>
<td>May-12</td>
<td>I DRIVE SAFELY</td>
<td>Compass Partners</td>
<td>Financial</td>
<td>Distribution</td>
<td>e-Learning</td>
<td>US</td>
<td>Provides online driver defensive training courses for customers in the US</td>
<td>73</td>
<td>NA</td>
</tr>
<tr>
<td>May-12</td>
<td>GlobalEnglish</td>
<td>Pearson</td>
<td>Strategic</td>
<td>Distribution</td>
<td>e-Learning</td>
<td>US</td>
<td>Provides on-demand enterprise solutions for advancing enterprise fluency</td>
<td>90</td>
<td>NA</td>
</tr>
<tr>
<td>May-12</td>
<td>Casterbridge Nurseries</td>
<td>Bright Horizons Family Solutions</td>
<td>Strategic</td>
<td>Distribution</td>
<td>Traditional</td>
<td>UK</td>
<td>Operates nurseries and preschools in Greater London, East Anglia, and the South East of England</td>
<td>114</td>
<td>NA</td>
</tr>
<tr>
<td>Transaction Date</td>
<td>Target</td>
<td>Acquirer</td>
<td>Strategic vs. Financial Acquirer</td>
<td>Target Subsector</td>
<td>Target (e-Learning vs. Traditional)</td>
<td>Target HQ (Country)</td>
<td>Target Business Description</td>
<td>Transaction Value £m</td>
<td>Implied EV / EBITDA</td>
</tr>
<tr>
<td>------------------</td>
<td>--------</td>
<td>-------------------------------</td>
<td>---------------------------------</td>
<td>---------------------------</td>
<td>-----------------------------------</td>
<td>---------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
<td>----------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>May-12</td>
<td>ALC Press</td>
<td>Nippon Mirai Capital</td>
<td>Financial</td>
<td>Content</td>
<td>e-Learning</td>
<td>Japan</td>
<td>Engages in the planning, production and sale of materials for distance learning in Japan</td>
<td>65</td>
<td>4.7x</td>
</tr>
<tr>
<td>May-12</td>
<td>Certiport</td>
<td>Pearson</td>
<td>Strategic</td>
<td>Management Systems</td>
<td>e-Learning</td>
<td>US</td>
<td>SaaS education technology provider that develops, markets and distributes education and certification software testing programmes</td>
<td>140</td>
<td>NA</td>
</tr>
<tr>
<td>Mar-12</td>
<td>Archipelago Learning</td>
<td>PLATO Learning</td>
<td>Strategic</td>
<td>Management Systems</td>
<td>e-Learning</td>
<td>US</td>
<td>Provides subscription-based SaaS education products to customers in the US, Canada and the UK</td>
<td>366</td>
<td>12.5x</td>
</tr>
<tr>
<td>Feb-12</td>
<td>Taleo</td>
<td>Oracle</td>
<td>Strategic</td>
<td>Management Systems</td>
<td>e-Learning</td>
<td>US</td>
<td>Provides on-demand talent management software solutions</td>
<td>1,921</td>
<td>NM</td>
</tr>
<tr>
<td>Feb-12</td>
<td>OutStart</td>
<td>Kenexa</td>
<td>Strategic</td>
<td>Management Systems</td>
<td>e-Learning</td>
<td>US</td>
<td>Provides formal and on-demand learning, knowledge sharing and community/expert collaboration solutions</td>
<td>84</td>
<td>13.5x</td>
</tr>
<tr>
<td>Jan-12</td>
<td>UP</td>
<td>Benesse</td>
<td>Strategic</td>
<td>Distribution</td>
<td>Traditional</td>
<td>Japan</td>
<td>Engages in the education business activities in Japan</td>
<td>94</td>
<td>NA</td>
</tr>
<tr>
<td>Dec-11</td>
<td>Wao</td>
<td>NA Holdings</td>
<td>Strategic</td>
<td>Distribution</td>
<td>e-Learning</td>
<td>Japan</td>
<td>Provides education services in Japan</td>
<td>76</td>
<td>5.2x</td>
</tr>
<tr>
<td>Dec-11</td>
<td>SuccessFactors</td>
<td>SAP</td>
<td>Strategic</td>
<td>Management Systems</td>
<td>e-Learning</td>
<td>US</td>
<td>Provides cloud-based business execution software solutions for organisations to bridge the gap between business strategy and results worldwide</td>
<td>3,764</td>
<td>NM</td>
</tr>
<tr>
<td>Nov-11</td>
<td>QJSC Publishing House</td>
<td>Olma Media Group</td>
<td>Strategic</td>
<td>Content</td>
<td>Traditional</td>
<td>Russia</td>
<td>Specialises in issuing study materials</td>
<td>72</td>
<td>NA</td>
</tr>
</tbody>
</table>
### e-Learning M&A Transactions (Cont’d)

<table>
<thead>
<tr>
<th>Transaction Date</th>
<th>Target</th>
<th>Acquirer</th>
<th>Strategic vs. Financial Acquirer</th>
<th>Target Subsector</th>
<th>Target (e-Learning vs. Traditional)</th>
<th>Target HQ (Country)</th>
<th>Target Business Description</th>
<th>Transaction Value £m</th>
<th>Implied EV / EBITDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov-11</td>
<td>Global Education &amp; Technology Group</td>
<td>Pearson</td>
<td>Strategic</td>
<td>Distribution</td>
<td>e-Learning</td>
<td>China</td>
<td>Provides educational courses and related services in China</td>
<td>286</td>
<td>18.2x</td>
</tr>
<tr>
<td>Oct-11</td>
<td>Element K</td>
<td>Skillsoft</td>
<td>Strategic</td>
<td>Distribution</td>
<td>e-Learning</td>
<td>US</td>
<td>Provides learning solutions to enable organisations to develop employees, support partners and educate customers</td>
<td>110</td>
<td>NA</td>
</tr>
<tr>
<td>Oct-11</td>
<td>learndirect</td>
<td>LDC</td>
<td>Financial</td>
<td>Distribution</td>
<td>e-Learning</td>
<td>UK</td>
<td>Provides online learning solutions for customers in the UK</td>
<td>62</td>
<td>NA</td>
</tr>
<tr>
<td>Sep-11</td>
<td>Everonn Education</td>
<td>Varkey Group</td>
<td>Strategic</td>
<td>Distribution</td>
<td>e-Learning</td>
<td>India</td>
<td>Provides education and training services in India</td>
<td>48</td>
<td>8.3x</td>
</tr>
<tr>
<td>Sep-11</td>
<td>Connections Education</td>
<td>Pearson</td>
<td>Strategic</td>
<td>Distribution</td>
<td>e-Learning</td>
<td>US</td>
<td>Data-driven education software for K-12</td>
<td>400</td>
<td>NA</td>
</tr>
<tr>
<td>Sep-11</td>
<td>Kisimul Group</td>
<td>Torreal</td>
<td>Financial</td>
<td>Distribution</td>
<td>Traditional</td>
<td>UK</td>
<td>Provides residential care and education for children and young people with autism, learning disabilities and challenging behaviour</td>
<td>85</td>
<td>NA</td>
</tr>
<tr>
<td>Aug-11</td>
<td>Renaissance Learning</td>
<td>Permira</td>
<td>Financial</td>
<td>Management Systems</td>
<td>e-Learning</td>
<td>US</td>
<td>Virtual education solutions for K-12 students and online learning solutions to educational institutions</td>
<td>485</td>
<td>12.0x</td>
</tr>
<tr>
<td>Aug-11</td>
<td>GABA</td>
<td>Nichii Gakkan</td>
<td>Strategic</td>
<td>Distribution</td>
<td>Traditional</td>
<td>Japan</td>
<td>Operates English schools in Japan</td>
<td>132</td>
<td>4.3x</td>
</tr>
<tr>
<td>Aug-11</td>
<td>SunGard Higher Education</td>
<td>Datatel</td>
<td>Strategic</td>
<td>Management Systems</td>
<td>e-Learning</td>
<td>US</td>
<td>Higher education software systems that manage student records</td>
<td>1,775</td>
<td>NA</td>
</tr>
<tr>
<td>Aug-11</td>
<td>American University of the Caribbean and Medical Education Services</td>
<td>DeVry</td>
<td>Strategic</td>
<td>Distribution</td>
<td>Traditional</td>
<td>US</td>
<td>Fully accredited Caribbean medical school</td>
<td>235</td>
<td>NA</td>
</tr>
<tr>
<td>Aug-11</td>
<td>Carnegie Learning</td>
<td>Apollo Group</td>
<td>Strategic</td>
<td>Content</td>
<td>e-Learning</td>
<td>US</td>
<td>Publishes mathematics curricula for middle school, high school and postsecondary students in the US</td>
<td>75</td>
<td>NA</td>
</tr>
<tr>
<td>Transaction Date</td>
<td>Target</td>
<td>Acquirer</td>
<td>Strategic vs. Financial Acquirer</td>
<td>Target Subsector</td>
<td>Target (e-Learning vs. Traditional)</td>
<td>Target HQ (Country)</td>
<td>Target Business Description</td>
<td>Transaction Value £m</td>
<td>Implied EV / EBITDA</td>
</tr>
<tr>
<td>------------------</td>
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</tr>
<tr>
<td>Jul-11</td>
<td>Blackboard</td>
<td>Providence Equity</td>
<td>Financial</td>
<td>Management Systems</td>
<td>e-Learning</td>
<td>US</td>
<td>Publishing and distributing books and journals</td>
<td>1,852</td>
<td>22.3x</td>
</tr>
<tr>
<td>May-11</td>
<td>Nobel Learning Communities</td>
<td>Leeds Equity Partners</td>
<td>Financial</td>
<td>Distribution</td>
<td>Traditional</td>
<td>US</td>
<td>Operates a network of nonsectarian private schools that include preschools, elementary schools, middle schools and specialty high schools</td>
<td>148</td>
<td>8.4x</td>
</tr>
<tr>
<td>Apr-11</td>
<td>Schoolnet</td>
<td>Pearson</td>
<td>Strategic</td>
<td>Management Systems</td>
<td>e-Learning</td>
<td>US</td>
<td>Instructional improvement education software focused on K-12 districts and states</td>
<td>230</td>
<td>NA</td>
</tr>
<tr>
<td>Apr-11</td>
<td>Tribal Group's Health &amp; Government Businesses</td>
<td>Capita Business Services</td>
<td>Strategic</td>
<td>Distribution</td>
<td>e-Learning</td>
<td>UK</td>
<td>Provides advisory, service delivery and technical support across central and local governments</td>
<td>25</td>
<td>NA</td>
</tr>
<tr>
<td>Mar-11</td>
<td>Education Development International</td>
<td>Pearson</td>
<td>Strategic</td>
<td>Management Systems</td>
<td>e-Learning</td>
<td>UK</td>
<td>Provides educational qualifications and assessment services in the UK and internationally</td>
<td>183</td>
<td>10.1x</td>
</tr>
<tr>
<td>Feb-11</td>
<td>Forma-Dis</td>
<td>21 Centrale Partners / CM-CIC Capital Finance</td>
<td>Financial</td>
<td>Distribution</td>
<td>e-Learning</td>
<td>France</td>
<td>Operates 6 distance training and electronic learning schools</td>
<td>104</td>
<td>NA</td>
</tr>
<tr>
<td>Feb-11</td>
<td>James Bowers Education</td>
<td>ISIS Equity Partners</td>
<td>Financial</td>
<td>Distribution</td>
<td>Traditional</td>
<td>Norway</td>
<td>Offers coaching and education services to private candidates for their Norwegian Upper Secondary Schools exams</td>
<td>32</td>
<td>NA</td>
</tr>
<tr>
<td>Feb-11</td>
<td>Sonans</td>
<td>Procuritas</td>
<td>Financial</td>
<td>Distribution</td>
<td>e-Learning</td>
<td>UK</td>
<td>Owns and operates residential and day special schools for children with behavioral, emotional, social, communication and complex learning difficulties</td>
<td>41</td>
<td>NA</td>
</tr>
<tr>
<td>Feb-11</td>
<td>Pearson Sistemas do Brasil</td>
<td>Pearson</td>
<td>Strategic</td>
<td>Content</td>
<td>e-Learning</td>
<td>Brazil</td>
<td>Operates in the educational sector in Brazil</td>
<td>330</td>
<td>NM</td>
</tr>
</tbody>
</table>

**Mean**

- £448<br>Implied EV / EBITDA: 10.6x

**Median**

- £107<br>Implied EV / EBITDA: 9.2x
Fundraising
## Recent e-Learning Fundraising
### Most Recent 30 Fundraisings

<table>
<thead>
<tr>
<th>Transaction Date</th>
<th>Target</th>
<th>Investor</th>
<th>Investor Type</th>
<th>Target HQ (Country)</th>
<th>Target Subsector</th>
<th>Target Business Description</th>
<th>Transaction Value(^{(2)}) £m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec-12</td>
<td>NOOK Media</td>
<td>Pearson</td>
<td>Strategic</td>
<td>US</td>
<td>Content</td>
<td>The joint venture between Barnes &amp; Noble and Microsoft that runs the US retailer’s Nook e-Reader division, its e-Book store and its 674 college bookstores</td>
<td>89.5</td>
</tr>
<tr>
<td>Dec-12</td>
<td>Grockit</td>
<td>Atlas Venture, Benchmark Capital,</td>
<td>VC</td>
<td>US</td>
<td>Distribution</td>
<td>Develops online social, collaborative, and personal learning programmes</td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Integral Capital Partners, Discovery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Communication, GSV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec-12</td>
<td>Udemy</td>
<td>Insight Venture Partner, Learn Capital</td>
<td>VC</td>
<td>US</td>
<td>Distribution</td>
<td>A leading video-based online marketplace for skill-based and lifelong learning</td>
<td>12.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Venture Partners, Lightbank, MHS Capital Partners</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec-12</td>
<td>Skills Matter</td>
<td>Beringea</td>
<td>PE</td>
<td>UK</td>
<td>Distribution</td>
<td>Provides open source and agile training programs and events for software professionals to learn and share skills to write software</td>
<td>5.0</td>
</tr>
<tr>
<td>Dec-12</td>
<td>Tree House Education &amp;</td>
<td>Aditiya Birla Trustee Company, ON</td>
<td>Philanthropic</td>
<td>India</td>
<td>Distribution</td>
<td>Provides various educational services in India and operates the largest number of self-operated pre-schools in India</td>
<td>9.3</td>
</tr>
<tr>
<td></td>
<td>Accessories</td>
<td>Mauritius</td>
<td>Investment Firm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov-12</td>
<td>Memrise</td>
<td>NA</td>
<td>NA</td>
<td>UK</td>
<td>Distribution</td>
<td>Online learning platform that combines the best insights from the art and science of memory</td>
<td>5.1</td>
</tr>
<tr>
<td>Nov-12</td>
<td>Descomplica</td>
<td>500 Startups, The Social+Capital</td>
<td>VC</td>
<td>Brazil</td>
<td>Distribution</td>
<td>Helps high school students prepare for their university entrance exams</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Partnership, Valar Ventures, Valor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capital Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov-12</td>
<td>General Assembly</td>
<td>VegasTechFund</td>
<td>VC</td>
<td>US</td>
<td>Distribution</td>
<td>Operates a network of campuses for individuals focusing on opportunities and education in technology, business, and design domains</td>
<td>9.8</td>
</tr>
<tr>
<td>Oct-12</td>
<td>Tareasplus</td>
<td>Academic Partnerships</td>
<td>Strategic</td>
<td>US</td>
<td>Distribution</td>
<td>Operates an online education portal and offers video lessons to help students from early-teens to mid-twenties to do their homework assignments and general studies</td>
<td>1.8</td>
</tr>
<tr>
<td>Oct-12</td>
<td>Udacity</td>
<td>Charles River Ventures, Andreessen</td>
<td>VC</td>
<td>US</td>
<td>Distribution</td>
<td>Offers online courses focusing on artificial intelligence and robotics</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Horowitz</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Capital IQ as at 31 December 2012

(1) Includes the 30 most recent fundraisings

(2) Transaction values are converted at historical conversion rates
### Recent e-Learning Fundraising (Cont’d)(1)

<table>
<thead>
<tr>
<th>Transaction Date</th>
<th>Target</th>
<th>Investor</th>
<th>Investor Type</th>
<th>Target HQ (Country)</th>
<th>Target Subsector</th>
<th>Target Business Description</th>
<th>Transaction Value(2) £m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct-12</td>
<td>Busuu Online</td>
<td>PROfounders Capital</td>
<td>VC</td>
<td>Spain</td>
<td>Distribution</td>
<td>Operates an online community for learning languages</td>
<td>4.6</td>
</tr>
<tr>
<td>Oct-12</td>
<td>Inigral</td>
<td>Bill &amp; Melinda Gates Foundation, Retro Venture Partners</td>
<td>Endowment Fund / VC</td>
<td>US</td>
<td>MS</td>
<td>Designs and develops Facebook application for higher education</td>
<td>3.3</td>
</tr>
<tr>
<td>Oct-12</td>
<td>Ace Creative Learning</td>
<td>Accel Management, Kaizen Management, Catamaran Investment, Monterey Capital Management</td>
<td>VC</td>
<td>India</td>
<td>Distribution</td>
<td>Provides training and guidance to students preparing for various engineering and medical entrance examinations</td>
<td>4.5</td>
</tr>
<tr>
<td>Oct-12</td>
<td>ConnectEdu</td>
<td>Undisclosed</td>
<td>NA</td>
<td>US</td>
<td>Distribution</td>
<td>Provides Web-based college and career access solutions</td>
<td>5.0</td>
</tr>
<tr>
<td>Oct-12</td>
<td>Best Learning</td>
<td>Tiantu Capital</td>
<td>VC / Growth</td>
<td>China</td>
<td>Distribution</td>
<td>Operates a chain of English schools in China</td>
<td>15.9</td>
</tr>
<tr>
<td>Sep-12</td>
<td>Clever</td>
<td>Bessemer Venture Partners, SoftTech VC, Y Combinator, FLOODGATE, SV Angel, Kapor Capital</td>
<td>VC</td>
<td>US</td>
<td>MS</td>
<td>Provides an online service for the student information system (SIS) integration of educational applications</td>
<td>3.0</td>
</tr>
<tr>
<td>Sep-12</td>
<td>ePals</td>
<td>Undisclosed</td>
<td>NA</td>
<td>US</td>
<td>MS</td>
<td>Provides social learning networks worldwide</td>
<td>12.1</td>
</tr>
<tr>
<td>Sep-12</td>
<td>creativeLIVE</td>
<td>Greylock Partners</td>
<td>NA</td>
<td>US</td>
<td>Distribution</td>
<td>Operates creativeLIVE, an online platform that provides live learning workshops and courses for entrepreneurs worldwide</td>
<td>7.5</td>
</tr>
<tr>
<td>Sep-12</td>
<td>Duck Duck Moose</td>
<td>Sequoia Capital, Stanford University, Lightspeed Venture Partners</td>
<td>VC / Institutional</td>
<td>US</td>
<td>Distribution</td>
<td>Creates educational applications for iPhone, iPod touch, iPad, and Android for children</td>
<td>7.0</td>
</tr>
<tr>
<td>Sep-12</td>
<td>G8 Education</td>
<td>NA</td>
<td>NA</td>
<td>Australia</td>
<td>Distribution</td>
<td>Operates owned and managed childcare centers in Australia and Singapore</td>
<td>36.7</td>
</tr>
</tbody>
</table>

Source: Capital IQ as at 31 December 2012  
(1) Includes the 30 most recent fundraisings  
(2) Transaction values are converted at historical conversion rates
Recent e-Learning Fundraising (Cont’d)(1)

<table>
<thead>
<tr>
<th>Transaction Date</th>
<th>Target</th>
<th>Investor</th>
<th>Investor Type</th>
<th>Target HQ (Country)</th>
<th>Target Subsector</th>
<th>Target Business Description</th>
<th>Transaction Value(2) £m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep-12</td>
<td>Duolingo</td>
<td>New Enterprise Associates, Union Square Ventures</td>
<td>VC</td>
<td>US</td>
<td>Distribution</td>
<td>Offers a language learning website where students learn a foreign language while simultaneously translating text</td>
<td>15.0</td>
</tr>
<tr>
<td>Sep-12</td>
<td>Calorx Education</td>
<td>Kaizen Management, Monterey Capital Management</td>
<td>VC</td>
<td>India</td>
<td>Distribution</td>
<td>Operates as an autonomous institution that focuses its activities on K-21 education ranging from a school to a university</td>
<td>4.5</td>
</tr>
<tr>
<td>Sep-12</td>
<td>Desire2Learn</td>
<td>New Enterprise Associates, OMERS Ventures</td>
<td>VC</td>
<td>Canada</td>
<td>MS</td>
<td>Provides enterprise eLearning solutions</td>
<td>80.0</td>
</tr>
<tr>
<td>Sep-12</td>
<td>eSpark</td>
<td>NewSchools Venture Fund, Investment Arm, MK Capital, Learn Capital Venture Partners, 500 Startups</td>
<td>VC</td>
<td>US</td>
<td>Distribution</td>
<td>Designs, develops, creates, and evolves a Web and iPad-based mobile educational software platform for elementary school students.</td>
<td>5.7</td>
</tr>
<tr>
<td>Aug-12</td>
<td>Simpletuition</td>
<td>Horison Technology Finance</td>
<td>Venture Debt</td>
<td>US</td>
<td>Distribution</td>
<td>Offers tips, advice, interactive tools, and deals to students and their families to take education financing decisions</td>
<td>5.0</td>
</tr>
<tr>
<td>Aug-12</td>
<td>ChinaCast Education</td>
<td>Investor Group</td>
<td>NR</td>
<td>Hong Kong</td>
<td>Distribution</td>
<td>Provides post-secondary education and e-learning services in China</td>
<td>2.2</td>
</tr>
<tr>
<td>Aug-12</td>
<td>Loyalist Group</td>
<td>Undisclosed</td>
<td>NA</td>
<td>Canada</td>
<td>Distribution</td>
<td>Owns and operates private ESL schools in Toronto and Vancouver, Canada</td>
<td>5.1</td>
</tr>
<tr>
<td>Aug-12</td>
<td>The rSmart Group</td>
<td>ASAHI Net, GSV</td>
<td>VC / Strategic</td>
<td>US</td>
<td>MS</td>
<td>Designs, develops, and delivers open-source software solutions for colleges, universities, schools, and education organizations in the United States and internationally</td>
<td>10.8</td>
</tr>
<tr>
<td>Aug-12</td>
<td>Educreations</td>
<td>Accel Management, NewSchools Venture Fund</td>
<td>VC</td>
<td>US</td>
<td>Distribution</td>
<td>Owns and operates <a href="http://www.educreations.com">www.educreations.com</a>, an Internet community that allows users to teach and learn. It enables teachers to create lessons and students to solve problems</td>
<td>2.2</td>
</tr>
<tr>
<td>Aug-12</td>
<td>Fingerprint Digital</td>
<td>Corus Entertainment</td>
<td>Strategic</td>
<td>US</td>
<td>Distribution</td>
<td>Develops mobile learning and play games for kids and grown-ups</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Source: Capital IQ as at 31 December 2012
(1) Includes the 30 most recent fundraisings
(2) Transaction values are converted at historical conversion rates
IBIS Capital

is a specialist investment bank focused on the Media sector

This report was prepared by IBIS Capital Ltd
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