Ambient Insight Premium Report

The Worldwide Market for Self-paced eLearning Products and Services: 2011-2016 Forecast and Analysis

The Smart Planet: The Self-paced eLearning Market is now a Global Ecosystem Across 85 Countries

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This is a Premium Report. Ambient Insight has five types of syndicated market research reports:

- **Premium Reports**: A Premium report includes a buyer analysis, a regional demand-side forecast analysis across seven regions with top buying country profiles for each region, and a supply-side analysis - These reports are designed for suppliers that need an in-depth view of the buying behaviors in each of the top buying countries in each region of the globe.

- **Standard Reports**: A Standard report includes a brief buyer analysis and a regional demand-side forecast analysis across seven regions, but no country profiles or supply-side analysis - These reports are designed for suppliers that understand the international market dynamics and "just want the numbers."

- **Regional Reports**: A Regional report includes a regional demand-side forecast analysis with top buying country profiles in a specific region - These reports are designed for suppliers that are competing (or plan to compete) in specific regions.

- **Targeted Reports:** A Targeted Report may analyze buying behavior and trends in a specific buyer segment; may isolate revenue opportunities, forecast revenues, and trends for a particular product type; or may pinpoint revenues and trends for a specific sub-category of content, service, or technology - These reports are designed for suppliers that are targeting specific buyers or specializing in a particular product sub-type.

- **Revenue Snapshots** are 2-3 page reports that include a single revenue-forecast table and a brief description of that table from a current market report. Please review the free Executive Overview for each report for a list of available tables. Contact us at info@ambientinsight.com to request a specific Revenue Snapshot.

Executive Overview: The New Global eLearning Ecosystem

The worldwide market for Self-paced eLearning reached $35.6 billion in 2011. The five-year compound annual growth rate is 7.6% and revenues will reach $51.5 billion by 2016. Five-year revenue forecasts are provided for 85 countries in this report.

Ambient Insight has revised our international forecasts for Self-paced eLearning products upward from previous forecasts.

Over 1,240 suppliers operating in specific countries are cited in this report. Many are new companies. Over 40% of the domestic suppliers identified in this report entered the market after 2009.

Until recently, Self-paced eLearning products were in high demand primarily in developed economies. Due to the rapid adoption of eLearning now taking place in developing economies and the explosion in the number of new suppliers, it is now possible to see the contours of a global eLearning ecosystem. The suppliers competing in all 85 of the countries analyzed in this report are now part of an international supply chain.

The astonishing growth rates in countries like Vietnam, Malaysia, Azerbaijan, and Thailand are good examples of once-nascent markets that have become vibrant revenue opportunities for suppliers in just the last two years (literally "overnight" in the context of a learning technology product lifecycle.)

Figure 1 – 2011-2016 Worldwide Self-paced eLearning Five-year Growth Rates by Region

The domestic suppliers are usually the first to recognize these new revenue streams and they are the primary competitors (and avid resellers) in these new markets. For example, Taiwanese eLearning companies are now competing in Vietnam through domestic resellers.

Self-paced eLearning is now a significant revenue opportunity for large and small suppliers competing in both developed and developing economies.

This Premium report forecasts the revenues for Self-paced eLearning products and services across seven regions: North America, Latin America, Western Europe, Eastern Europe, Asia, the Middle East, and Africa. This report also identifies the top buying countries in each region and provides a five-year forecast for each of those countries.

A modest growth rate in a region with very high revenues means that revenues will remain steady over the forecast period.

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

Western Europe and North America are the most mature markets in the world and have relatively modest growth rates, ***yet these two regions accounted for the highest revenues in 2011.*** The growth rates in both North America and Western Europe have remained steady for the last three forecast periods, while the other regions have experienced explosive growth rates.

North America will account for the vast majority of revenues throughout the forecast period. By 2016, Asia will outspend Western Europe and become the second-largest buying region.

Ambient Insight's Country Profiles

While regional growth rates and revenue forecasts provide suppliers with a good idea of the market conditions across a region, it is the country revenue forecasts in this Premium report that identify the addressable revenue opportunities for suppliers. In this report, five-year revenue forecasts are provided ***for eighty-five countries***:

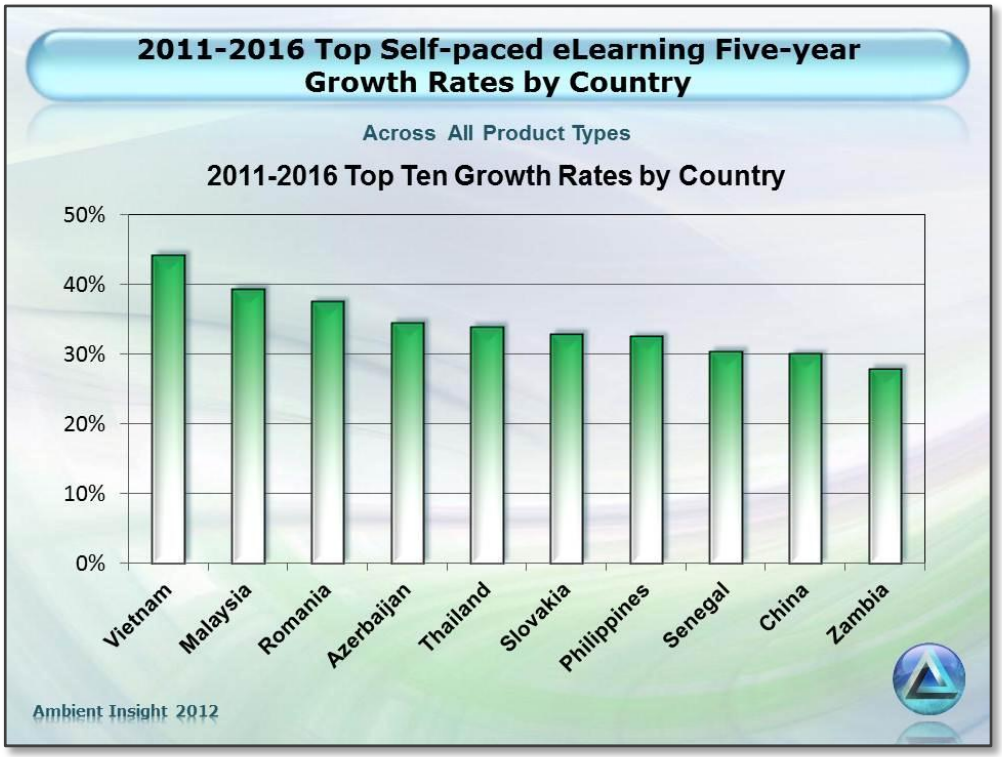
- In North America, revenue forecasts are broken out for Canada and the United States. Revenues are also broken out by eight buying segments in both Canada and the US.
- In Latin America, revenue forecasts are broken out for nine countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, and Venezuela.
- In Western Europe, revenue forecasts are broken out for twenty-two countries: Austria, Belgium, Bulgaria, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Spain, Sweden, Switzerland, and the United Kingdom.

- In Eastern Europe, revenue forecasts are broken out for ten countries: Azerbaijan, Belarus, Bosnia and Herzegovina, Croatia, Georgia, Kazakhstan, Moldova, the Russian Federation, Serbia, and Ukraine.
- In Asia, revenue forecasts are broken out for sixteen countries: Australia, Bangladesh, China, India, Indonesia, Japan, Malaysia, New Zealand, Pakistan, the Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand, and Vietnam.
- In the Middle East, revenue forecasts are broken out for ten countries: Egypt, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Turkey, and the United Arab Emirates.
- In Africa, revenue forecasts are broken out for sixteen countries: Algeria, Angola, Ethiopia, Ghana, Kenya, Morocco, Mozambique, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Tunisia, Uganda, Zambia, and Zimbabwe.

This report contains the largest index of country-specific eLearning suppliers in the world. This will help international suppliers identify local partners, distributors, resellers, and potential merger and acquisition (M&A) targets.

The top ten countries with the highest eLearning growth rates are Vietnam, Malaysia, Romania, Azerbaijan, Thailand, Slovakia, the Philippines, Senegal, China, and Zambia (half out of ten are in the Asia region.) The growth rates in nine of these countries are above 30%, more than four times the worldwide aggregate growth rate.

Figure 2 – 2011-2016 Top Ten Self-paced eLearning Five-year Growth Rates by Country



Additionally, there are dozens of countries with eLearning growth rates more than twice the aggregate global rate including Indonesia, Nigeria, Qatar, Oman, Poland, the Russian Federation, Tunisia, the Czech Republic, Tanzania, Brazil, Colombia, Bolivia, Hungary, Croatia, Bulgaria, Georgia, and Ukraine.

Relatively high compound annual growth rates are indicative of new rapidly growing markets and new revenue streams. The presence of high growth rates represents long-term revenue opportunities, particularly for first-to-market competitors.

There are several countries with flat-to-slightly-negative eLearning growth rates such as the UK, the Netherlands, Switzerland, Denmark, Finland, Belgium, Japan, and Taiwan. All of these are early adopter countries and now quite mature markets. These countries tend to have the highest revenues in their regions. ***The presence of flat growth rates in these high-revenue countries is not bad news. It actually means that the high revenues will remain steady over the forecast period.***

The top-buying countries in 2011 were the US, China, South Korea, Japan, and the UK, respectively. By 2016, the top-buying countries will be the US, China, South Korea, India, and Brazil.

The demand is still quite high in the developed economies and the revenues in those countries will remain high throughout the forecast period. However, the growth rates in the developing economies are now far outpacing the growth rates in the developed economies. The revenue streams are rising rapidly in many countries and they are identified in this report.

The New Global eLearning Ecosystem

The new global eLearning ecosystem has two primary features that appear to be on opposite ends of the spectrum: the emergence of new domestic suppliers developing highly-localized content and the emergence of trans-regional suppliers serving entire regions.

In 2010 and 2011, "indigenous" Self-paced eLearning products emerged across the globe, particularly in Latin America, the Middle East, and Africa.

The boom in demand for digital education content, particularly in countries with large scale digitization efforts, has created the foundation for a new supply-side ecosystem comprised of new domestic suppliers.

These domestic suppliers are often the gatekeepers into these new markets and are the potential reseller channel for third-party products from non-domestic suppliers.

Until recently, a major inhibitor in specific countries has been the lack of localized content. Non-domestic suppliers tried to solve this by translating content from other countries. Many of these efforts proved to be quite unsuccessful. The content was indeed translated, but not localized. Buyers emphatically rejected the products, particularly in countries in the Middle East and Africa. This impasse provided an opportunity for domestic

suppliers and publishers to develop digital content designed for their specific cultures. These products now dominate in several countries.

The large international suppliers often cannot afford to "scale down" to this degree of specificity. This has created revenue opportunities for domestic suppliers that develop their own content or partner with the major international suppliers to fully localize content. This has resulted in the strong demand for "indigenous" products.

This in turn is driving the emergence of new supply-side ecosystems with new suppliers coming to market at an accelerated rate. ***Over 40% of the domestic eLearning suppliers cited in this report launched after 2009.***

These new domestic suppliers tend to focus on content and very few are authoring tool or learning platform developers. Hence, they are strong buyers of third-party tools that they use in their business and avid resellers of both tools and platforms.

An interesting trend is the emergence of trans-regional suppliers that serve the needs of buyers across several countries in a region. This trend is particularly strong in Latin America where, except for Brazil, Spanish content is the common denominator. AXG Tecnonexo, based in Argentina, is a good example with offices in 11 countries in Latin America, and claims to be the "largest eLearning vendor in Latin America." Several trans-regional suppliers in the Middle East serve the markets across the Middle East and North Africa.

South Korean companies are exporting learning technology across Asia, Africa, and Latin America with help from the Korean government, which has made trade agreements in countries in those regions. In early 2010, the governments of Costa Rica and South Korea signed an agreement to foster the rapid development of the eLearning industry in Costa Rica. The project's goal is to implement eLearning in Costa Rica's schools and to support Costa Rica's eLearning export industry (Costa Rico is a major eLearning export hub in Latin America.) Suppliers in Spain and Portugal are major eLearning exporters to Latin America as well.

The term "varsity" is often used in India instead of the term "higher education."

Large scale academic digitization initiatives in Anglophone, Francophone, and Lusophone (Portuguese-speaking) countries in Africa have created opportunities for suppliers located in the UK, Canada, the US, Australia, Ireland, New Zealand, France, Portugal, and Brazil. A very new trend is that new domestic eLearning content suppliers in Anglophone, Francophone, and Lusophone countries in Africa are now exporting back into the countries outside of Africa that speak those languages.

New suppliers are entering the market at a steady rate in every region. This is interesting since the growth rates in the more mature regions such as North America and Western Europe are relatively low, yet new suppliers continue to enter the market even in those regions.

Targeting specific buyers in particular countries with particular product types is the key to generating revenues in the 85 countries analyzed in this

report. Ambient Insight provides a description of how we categorize product types in Ambient Insight's 2012 Learning Technology Research Taxonomy.

The Primary Catalysts in the New Global Ecosystem

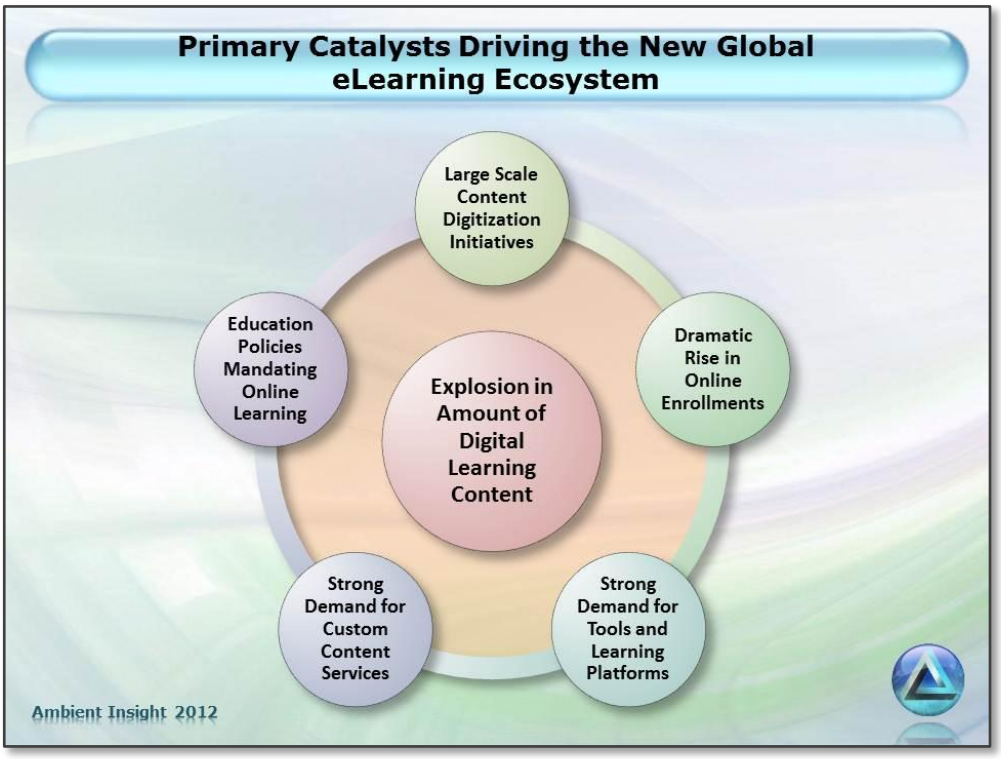
Although the catalysts (and inhibitors) are different in each of the 85 countries analyzed in this Premium report, there are clearly visible patterns in the new global eLearning ecosystem. The substantial growth in revenues for Self-paced eLearning products over the forecast period is due to several convergent catalysts:

- Government-funded education policies mandating country-wide deployment of digital learning infrastructures
- The large scale digitization efforts in government and academic markets across the globe
- The rapid growth of part-time and fulltime online student enrollments
- Strong demand for authoring tools and learning platforms
- Strong demand for custom content development services

The term "informatization" is often used instead of the term "digitization", particularly in Africa.

Combined, these catalysts have created a massive spike in the sales of both packaged and custom eLearning content, with the highest growth rates in Eastern Europe, Asia, and Latin America, respectively.

Figure 3 – Primary International Catalysts Driving the New Global eLearning Ecosystem



By 2016, global revenues for packaged content will rise to $38.3 billion, up from the $25.5 billion reached in 2011.

Education Policies Driving Growth

A country's educational policies are major factors influencing the adoption of learning technology. The process begins with government policies mandating (and funding) the state-wide or country-wide rollout of technology infrastructure. This report identifies the mandates and the stakeholders in each country. A small sample of these educational policies include:

- In September 2011, the Ministry of Education and Science of Kazakhstan announced they would buy 500,000 new computers ***every year*** with the goal to have a one-to-one student-to-device ratio by 2020. Additionally, their goal is to have 90% of schools equipped with broadband connectivity by 2020.

- In early-2012, the Japanese government passed the Distance Education Universities Law that authorized the online programs of 54 universities and 11 distance education junior colleges.

- In May 2012, the Vietnamese government announced sweeping reforms to the education system that will be instituted in the next four years. The government has been aggressively equipping schools with technology and broadband access to the Internet. The military-run telecom operator Viettel will provide free Internet to all 29,500 schools reaching over 25 million students and teachers in the country.

- In June 2012, the Italian government announced that they were on track to equip 34,600 middle school classrooms and 62,600 high school classrooms with computers and digital content by the start of the school year in the Fall of 2012.

- In July 2012, the Zimbabwean ICT minister announced that over 1,000 schools would have computer and eLearning courses by the beginning of 2013. He stated in the press that his goal was "to have eLearning courses in all of the country's 8,000 schools by 2015."

- In September 2012, the Malaysian government announced the National Education Blueprint 2013-2025, which "will equip 10,000 national schools nationwide with 4G Internet access and a virtual learning platform."

- In October 2012, the Ministry of Education in Angola announced that in partnership with the domestic telecom Unitel and China-based Huawei, they would install computers and tablets with free Internet connectivity in all secondary schools in the country. The project is called e-NET and commonly referred to as Escola Internet.

The term "revision" is used in several regions for what in the US is called an exam. A "matric" (derived from matriculation) is a high school student in South Africa taking college placement tests.

The infrastructure is the foundation for learning technology platforms, personal learning devices, and digital content. Those countries that have, or have been able to improve, their infrastructure are fertile ground for the expansion of learning technology projects.

The high demand for learning platforms, digital content, and devices represents a significant revenue opportunity for suppliers. This report identifies the mandates and countrywide projects by country and the key stakeholders in this process.

Large Scale Digitization Efforts

Digitization of education and training content tends to start with converting print-based textbooks, study guides, and vocational manuals into eTextbooks. Yet, once the infrastructure and learning technology is in place, the buyers are increasingly opting for interactive, self-paced multimedia content.

There are now major digitization efforts going on in the school systems in South Korea, Thailand, China, Taiwan, Vietnam, Turkey, Brazil, the Russian Federation, France, Poland, Italy, Spain, Ukraine, Azerbaijan, Kazakhstan, Georgia, Mexico, Japan, Singapore, Qatar, Kuwait, the United Arab Emirates (UAE), and in various school systems in the UK and the US. ***Virtually every sub-Saharan African country analyzed in this report has embarked on ambitious digitization efforts.***

China and South Korea are the first countries in the world to convert all their primary and secondary academic content to digital formats.

The Israeli government intends to replace all print-based textbooks with digital books by 2015. The Ministry stated in September 2011 that they will not approve any books that do not contain an additional digital format, starting in the 2012-2013 school year. This is the first country in the world to establish such a firm mandate.

Digitization tends to be a phased process with institutions targeting specific grades in the initial phases. This grade-based targeting is different in each country.

For example, Thailand and Vietnam are starting with content for the very early grades. In contrast, several countries in the Middle East are digitizing high school content in their initial phases. Other countries such as Malaysia and Bulgaria are focusing on higher education.

In June 2011, the South Korean Education Ministry mandated that all instructional content in all primary and secondary schools must be 100% digital by 2015.

In China, the central government develops and controls the academic curriculum. As of 2010, the entire primary and secondary curriculum was online in China. Although the content is online, relatively few students have access to it yet. ***The Chinese government's goal is to have their entire K-12 population of over 200 million students online by 2020.***

This digitization trend is not limited to the PreK-12 and higher education academic segments. This report identifies dozens of digitization efforts outside of the academic segments. A few government examples include:

- Russia and Brazil are now funding large-scale digital English language learning initiatives for government employees and tourism professionals.
- The Qatar National eLearning Portal Program (QNEP) is a government-funded workforce training site with over 4,000 free online courses, which replace print-based vocational training manuals.
- One of the largest government deployments of Self-paced eLearning in Europe is managed by the Italian Institute for Vocational Training, which delivers online courses to over 400,000 training professionals in Italy each year.
- In Saudi Arabia, the government-operated Technical and Vocational Training Corporation (TVTC) network of over 50 "colleges" has over 100,000 students and was an early adopter of eLearning. TVTC's goal is to reach 400,000 students by 2014 with over 1,200 online courses.

In October 2010, the German Federal Ministry of Education and Research announced a $30 million multi-year project to develop digital content for vocational education. The Volkshochschule (adult education school) system across Germany reaches over 6 million students a year. Self-paced courses, particularly language learning courses, are an integral part of Volkshochschule programs. Consequently, the Volkshochschules are major buyers of Self-paced eLearning products.

There are even national virtual high schools. The Open High School System (OHSS) in the Philippines and the Open Vocational High School in Turkey are good examples.

Boom in Online Enrollments

Online academic and vocational education providers are experiencing rapid growth. Large international providers now operate global online institutions. Domestic providers in the US, Brazil, India, and China have massive enrollments numbering in the hundreds of thousands.

There are more than 30 million online higher education students that take one or more of their classes online in the world as of August 2012. ***Over half are in the US, so far.***

The boom in online higher education enrollments in Africa is nothing short of astonishing. For example, the current classroom-based system in Nigeria can only support 400,000 students a year, although 1.6 million people apply each year. The federal government's goal is to double higher education enrollments in two years by using eLearning. Online learning is now seen as the only viable way to meet the demand for higher education in Nigeria.

Many countries are adopting eLearning as a way to meet the strong demand for higher education – a demand they simply cannot meet with traditional campuses and programs

The presence of rapidly growing online student populations across the planet represents an enormous revenue opportunity for content suppliers. Additionally, each online student represents a potential seat license for eLearning platforms.

One interesting trend across the globe is the emergence of ***national*** virtual universities funded by the government. Finland, Sweden, Norway, Bulgaria, Estonia, Malaysia, Tunisia, the Philippines, Mexico, Uganda, Australia, Kenya, Pakistan, and Switzerland have national virtual universities.

There are variations on these centralized virtual universities. The Bavarian Virtual University in Germany is an example of a state-funded virtual campus. ASEAN Cyber University, the University of South Africa (UNISA), and the African Virtual University are examples of trans-regional virtual universities. Considering their large international student enrollments, the UK's Open University and India's Indira Gandhi Open University (IGNOU) can be considered international virtual universities.

Virtual universities are attracting large numbers of online students.

- ChinaEdu in China has over 311,000 students, the second-largest online student population on the planet after the University of Phoenix Online in the US.
- The Thailand Cyber University Project is a government-funded consortium of 43 education institutions, NGOs, government agencies, and companies. As of June 2012, it provides over 300 free online courses and reaches over 170,000 students.
- UNISA, based in South Africa, has over 160,000 online students across Sub-Sahara Africa, more than half of their total student population. Over 3,500 come from outside South Africa.
- ChinaCast Education is a publicly-traded company in China and has over 145,000 online higher education students. (Additionally, they have 6,500 PreK-12 online students.)
- The State University of New York Learning Network and the Ohio Learning Network both have over 100,000 online students.
- The Open University of Japan is the largest online education provider in Japan with over 85,000 enrolled students.
- Open Universities Australia (OUA) has over 60,000 online students, more than double the enrollments from four years ago.

The term "open university" is often used instead of the term "virtual university" depending on the country. The terms are synonymous in many countries.

In October 2011, the National Institute of Educational Studies Teixeira in Brazil released the 2010 Census of Higher Education and reported that

over 930,000 higher education students were enrolled in distance learning courses in Brazil in 2010.

As of June 2012, over 225,000, roughly 9% of all higher education students in Japan, were enrolled in online classes, sparked in large part by new laws authorizing online programs. The launch of these new online programs and the strong demand for the classes is a new revenue opportunity for suppliers.

Enrollment in most online schools and universities is largely part time, with students, consumers, and employees still participating in classroom events supplemented with online learning. ***Yet, one of the strongest trends is the astonishing growth of fulltime online students.***

Two US-based online higher education providers, American Public Education and Bridgepoint Education, both have over 90,000 fulltime online students. Liberty University, UMassOnline, and Kaplan University have 70,000, 51,000, and 47,500 fulltime online students, respectively. Their students come from all over the world.

While 16.1 million higher education students took one or more classes online in US institutions in 2011, there were 1.5 million students taking all their classes online in US institutions. By 2016, this international student body of fulltime higher education students will rise to 4.1 million. It is likely that this number will be dwarfed by fulltime online enrollments in Chinese higher education institutions.

The word "tuition" is often used in several countries, particularly in Asia, to mean the class or the instructional content. In the West, it means the fee paid for the course.

While all domestic school systems are unique, the US stands out because it has the largest population of online PreK-12 students, so far. The large (and growing) number of children attending online primary and secondary schools ***fulltime*** in the US is a trend found nowhere else in the world.

A conservative estimate (that includes online home schooled children) is that, as of 2011, at least 455,000 PreK-12 children in the US attended all their classes online. This is a mere 0.74% of the total number of school children in the US. However, this is changing fast.

Considering the explosive growth in fulltime online enrollments in the US and the tendency for more and more states to allow fulltime virtual attendance, ***a conservative estimate is that over 8.2%, or 4.75 million US PreK-12 students, will be taking all their classes online by 2016.***

Strong Demand for Authoring Tools and Learning Platforms

It should come as no surprise, that in the midst of such massive migration to online learning, that the demand for tools and platforms would increase. This is particularly true in the more dynamic regions such as Africa, Asia, and Latin America.

The term "polytechnic" is used in many regions for higher education institutions that offer specialized programs in industrial arts, technology, and applied sciences. The term is used to differentiate it from universities.

The global eLearning tool market is in flux. In 2011, the highest revenues were generated in North America, Asia, and Western Europe, respectively. By 2016, Asia will account for the highest revenues, followed by North America, and Eastern Europe.

The growth rate in Africa for installed authoring tools ***is the highest in the world.*** Asia and Eastern Europe have the next highest growth rates for authoring tools. Africa also has the highest growth rate for installed learning platforms. Latin America has the second-largest growth rate for learning platforms at 15.9%, followed by Asia at 11.5%.

The use of open source learning platforms can dampen the demand for commercial platforms, although it is a catalyst for services suppliers. The uptake of open source platforms varies by region and country. Open source platforms are in wide use in all the Sub-Saharan Africa countries analyzed in this report.

This Premium report identifies the countries that are avid supporters of open source content and technology. Commercial suppliers without open source solutions have essentially been closed out of competition in those countries. With open source products, revenues come from the "product halo," not from the sales of the product itself. This halo includes custom services, training, hosting, and technical support.

Strong Demand for Custom Content Development Services

The new global eLearning ecosystem favors domestic suppliers. In many countries, particularly in Africa, the primary language of instruction in the early grades is often an indigenous language.

Instruction in English or French in African schools usually begins in earnest after third grade. In many countries, children in the early grades are taught in native languages. Additionally, consumers across Africa purchase digital learning products in English, French, Arabic, Portuguese, and their native languages.

There are over 500 living languages in Africa and clearly this is a challenge for foreign suppliers. This creates a market climate that favors the domestic suppliers that are capable of customizing early learning content into native languages.

The aggregate growth rate for custom content development services across the planet is a modest 2.6%, being dampened by the flat growth rate in North America. This percentage masks the high growth rates in other regions.

Africa has the highest growth rate for custom content development services at 27.9%, followed by Asia, and Eastern Europe at 14.7% and 13.6%, respectively.

The custom content development services market is now a complex global industry with:

- Literally thousands of domestic suppliers offering services to local schools and businesses
- Major national and international brands offering services to large companies
- Trans-regional suppliers serving wide swathes of countries across a region
- Business process outsourcers (BPOs) offering services to global buyers.

The term "bespoke" is often used in Western Europe to refer to custom eLearning products.

Additionally, well established "courseware factories" in Canada, Ireland, India, China, the Russian Federation, and Pakistan are selling retail services directly to companies and selling wholesale services to BPOs.

Secondary Catalysts

There are several secondary catalysts that are impacting the global eLearning industry:

- The explosion in demand for digital English language learning products
- New service-based business models
- The boom in private investments made to eLearning suppliers
- The active roll the telecoms now play in the eLearning ecosystem

Digital English Language Learning in High Demand

One significant catalyst in the region is government mandates designed to increase English proficiency of not only the native populations but also immigrants to English-speaking countries.

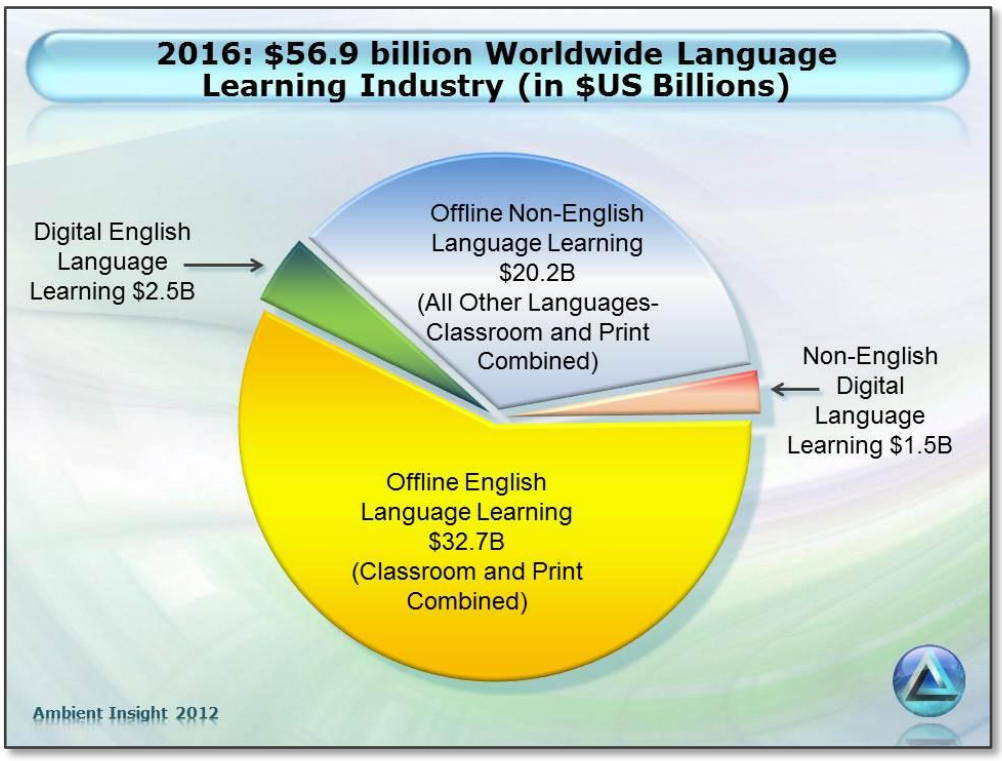
Countries around the world have initiated new government policies that mandate school systems to increase proficiency in the English language.

The governments of Rwanda, South Sudan, Turkey, the Russian Federation, Georgia, Kazakhstan, South Korea, Japan, Malaysia, the UAE, Vietnam, China, Brazil, Chile, and Argentina have instituted broad-reaching federal programs designed to increase written and/or spoken English proficiency.

The one thing all these countries have in common is the shortage of native English-speaking teachers, which has created a spike in the demand for self-paced digital products.

Digital English language learning suppliers tend to have large multinational student populations (numbering in the millions for some suppliers) that span the consumer, government, academic, and corporate segments.

Figure 4 – The 2016 Global Language Learning Industry (in $US Billions)



Source: The Worldwide Market for Digital English Language Learning Products and Services: 2011-2016 Forecast and Analysis, Ambient Insight, LLC

English language learning products (offline and online combined) generated $35.9 billion (or 61.7% of the total language learning market) in 2011, ***making it the largest concentrated revenue opportunity in the international language learning market.***

In May 2012, the British Council announced that their ELT content will be preinstalled on all of Intel's new Classmate PCs. They expect to be on over 100 million Classmates by 2015.

As of 2011, only 3.7%, or $1.31 billion, of that $35.9 billion English language learning revenue was generated by the sales of digital products, which indicates a significant potential for growth. By 2016, expenditures on digital English language learning products will account for 7.3% (or $2.5 billion) of the global English language learning market.

There are also revenue opportunities for eLearning suppliers selling non-English language learning products. All the other languages combined will generate $1.5 billion in digital content revenue by 2016, although these revenues are spread out over more than a dozen of the languages in highest demand.

The Emergence of New Service-based Business Models

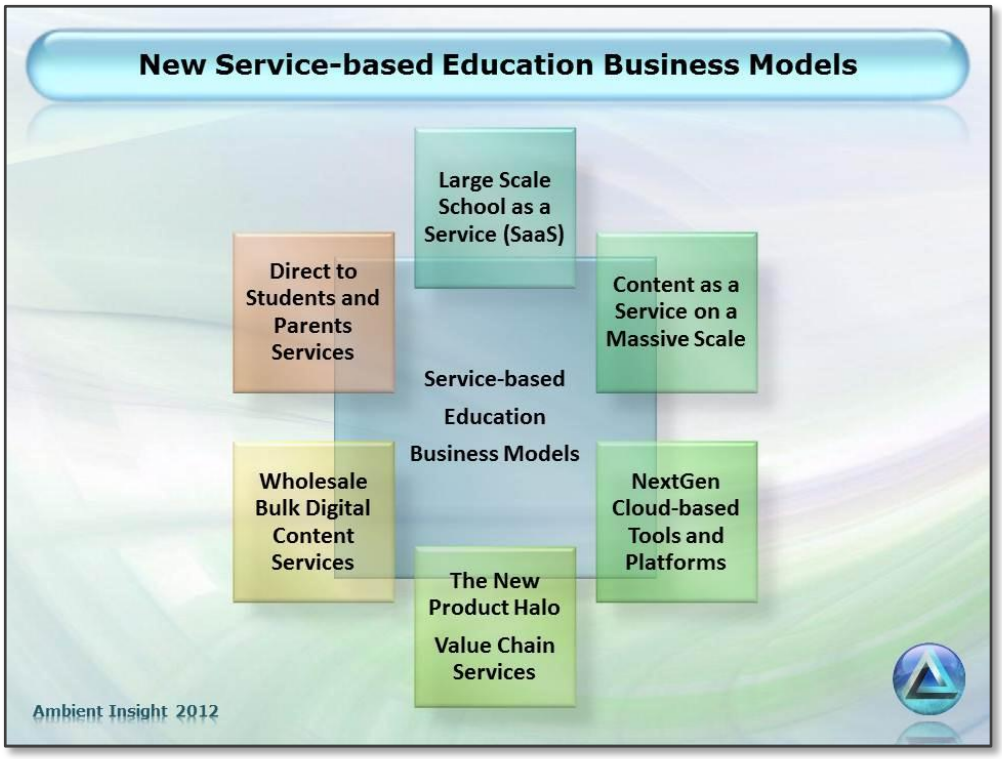
New service-based education business models are now generating significant revenues for eLearning suppliers. Probably the most significant aspect of this trend is that the major global educational publishers are driving these new models. Two of these new models are School as a Service (SaaS) and Content as a Service (CaaS).

Universities are now outsourcing their ***entire*** online programs to School as a Service (SaaS) providers, particularly in the US. Pearson runs the online programs for Arizona State University, Rutgers, and California State University (the second-largest university system in the US). Western Governors University now runs online state universities in Washington, Texas, and Indiana.

School as a Service (SaaS) business models are based on revenue sharing. For example, in Pearson's seven-year deal with Rutgers (announced in January 2013), they will split the online tuition revenues evenly for the first year. Rutgers will eventually get 65% as enrollment grows. Their goal is to, "add tens of thousands of cyber students to Rutgers' rolls by 2020."

Other School as a Service (SaaS) providers include Wiley, Academic Partnerships, Bisk Education, Educators Serving Educators, Learninghouse, Colloquy, 2U (formerly 2tor), and AltiusEd.

Figure 5 – The Emergence of New Service-based Education Business Models



The term "gymnasium" is used in Europe to designate high schools that prepare students for college. The term is used to differentiate between vocational high schools.

Bisk Education is a for-profit company that operates the University Alliance (UA). The UA is a partnership of nine colleges in the US. UA claims they now manage over 450,000 online enrollments in the US every year. Bisk claims they are now "the largest facilitator of eLearning in the country."

Another new service-based education business model is Content as a Service (CaaS), which is a subscription-based revenue model in which customers essentially rent access and do not own the content. In July 2012, McGraw-Hill (now owned by Apollo Management Group) announced

it will sell subscriptions to their LearnSmart product, for between $25 and $35 per semester ***directly to students.***

Selling (renting) subscription-based content directly to parents and students is a new twist in the educational publishing industry. In August 2012, Houghton Mifflin Harcourt (HMH) announced that Kno (a custom content developer) will produce a new line of digital elementary and secondary titles that will be "rented" directly to the parents of schoolchildren for $9.99 a month.

McGraw-Hill also expanded their "bulk" eTextbook delivery program called Courseload in September 2012. This is also a new business model. Higher education institutions buy volume licenses to digital content. Students do not buy the content, which is fundamentally different from traditional higher education in the US. The institutions are charged relatively high licensing fees ranging from $25,000 to $35,000.

Cloud-based authoring tools and learning platforms are defined as services by Ambient Insight. Several innovations came on the market in 2011 and 2012. Edmodo is a good example. It is a hybrid between a Social Learning platform and a Classroom Management System. Edmodo garnered $40 million in private investment in 2012.

There are a range of new (and largely untested) service-based education models that can be called "value chain services," sometimes called the "product halo" since revenues do not come from the sale of the product, but rather from services relating to the product. The revenues derive from a wide range of services including job placement, royalties on the sales of third-party content, exam fees, application fees, and "sponsored" courses.

Several new value chain services suppliers have emerged in just the last few years including edX (a joint venture between Harvard and MIT), Udacity, University of the People (UoPeople), Coursera, and StudyHall.

Leading the Charge: Resurgence in Venture Capital to eLearning Suppliers

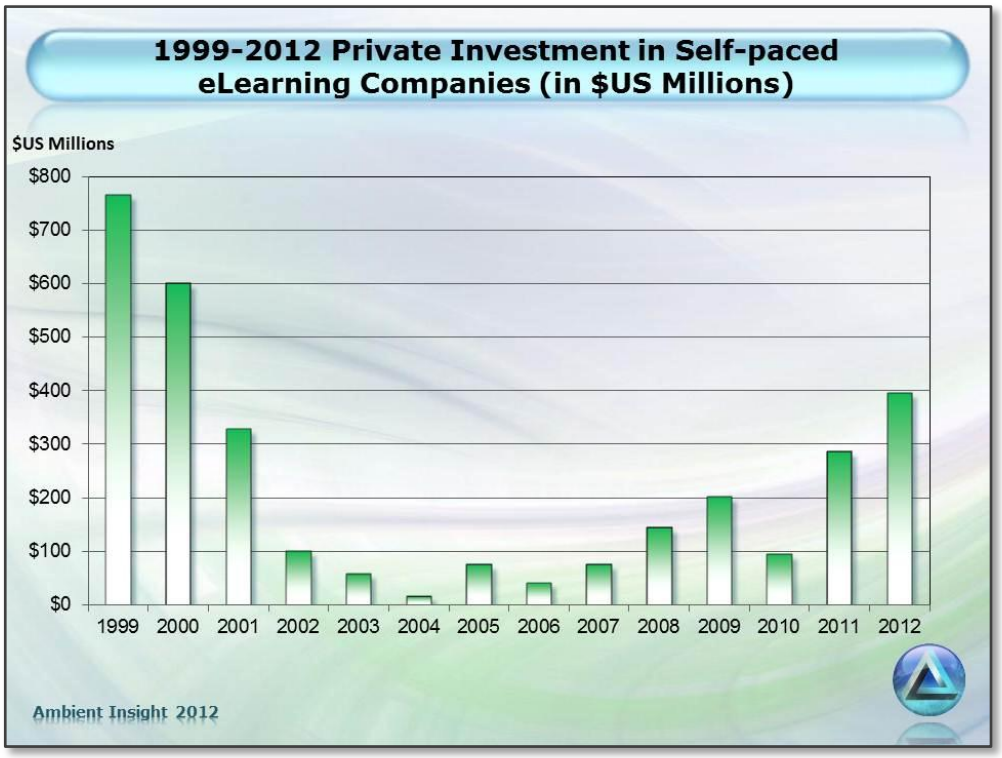
Ambient Insight closely monitors the investments made to learning technology suppliers across the planet. We consider investment patterns to be leading indicators; funders expect some kind of return on their investment within 3-5 years.

Companies that sold Self-paced eLearning platforms and content to large corporate buyers were the primary recipients of funding in 1999 and 2000 (the first boom, if not the bubble, for eLearning investment).

Investment in Self-paced eLearning companies bottomed out in 2004. There was renewed interest in 2008 and 2009. ***Investments in 2012 were the highest since the boom years of 1999 and 2000.*** However, there are major differences in the current funding patterns.

In 1999, there were 33 deals made with eLearning suppliers and almost all of them were corporate-facing suppliers. In 2012, there were 58 investments made to eLearning suppliers, but only 5 were corporate-facing suppliers. The vast majority of investments went to PreK-12 and higher education suppliers.

Figure 6 – The Resurgence in Venture Capital to eLearning Suppliers



Source: The Boom in Learning Technology Investment - 2012 Investment Reaches Historical High: Digital Education Goes Retail, Ambient Insight, LLC

While the investment trends in learning technology can often appear to be in lock step with general investment in technology, the trends in the learning technology industry are actually quite unique.

One interesting investment pattern for 2012 was that most of the eLearning suppliers serving the PreK-12 eLearning market were startups. In contrast, almost all of the higher education suppliers were established businesses with visible revenue streams. Clearly, investors are willing to take risks with startup PreK-12 suppliers, but not much with startup higher education companies.

The New Disruptors: The Rise of the Telecoms

A very new trend is the entrance of telecoms into the global eLearning market. They are often the major suppliers in specific countries and sometimes across regions. They are now offering Self-paced eLearning products targeted to consumers, corporations, government agencies, and academic buyers.

The participation of the telecom operators in the global market is concentrated in specific countries and completely absent in others. It is common for telecoms to compete in the learning technology markets in

South Korea, Spain, Brazil, India, Japan, and most of the countries in Africa.

The telecoms have almost no direct presence in the US eLearning market. SK Telecom and Turk Telecom have digital education subsidiaries (Knoodle and Adaptive Curriculum) in the US, but they are not branded as a telecom operation.

Device makers are now also active in the eLearning market. Samsung, Apple, Nokia, and Huawei are good examples.

Telecoms are often the largest eLearning supplier in a country. The largest eLearning supplier in Spain, relative to revenues, is Telefónica Learning Services. NTT Learning Systems is the largest supplier in Japan. Korea's SK Telecom dominates the South Korean PreK-12 market and has extensive long-term contracts with the government to manage countrywide initiatives.

The telecoms partner with content providers, and have become a lucrative distribution channel for digital education content publishers. Over 60 of these telecoms are identified in this report.

Sebit, which is owned by Türk Telekom, dominates the academic markets in Turkey. Auralog has sold over 600,000 licenses for its digital language learning software in Turkey since it partnered with Sebit.

SK Telecom's T Smart Mobile Learning Platform offers what they call "premium high-quality content" from the major educational publishers in South Korea including Chungdahm Learning, Daekyo, Visang, Chunjae Education, and SMEnglish.

In May 2012, Houghton Mifflin Harcourt (HMH) announced a deal with SK Telecom to distribute over 1,000 digital products on the T Smart Mobile Learning Platform. Interestingly, the products are in English and SK Telecom will sell the content to both consumers and institutions.

In developing economies, the telecoms are "first to market" in the academic segments as they rollout Internet connectivity to the schools, often under a government contract. Once in, they are the first point of contact for learning technology buyers.

While the telecoms almost always partner with third-party content suppliers, they are increasingly offering their own branded tools, platforms, and services.

Who Is the Buyer?

The US was the largest buying country in 2011 (by far) and a detailed breakout of the eight buyer segments is included in the US analysis in the North America section of this report. The North America section also breaks out the expenditures by the eight buying segments in Canada.

In 2011, corporations were the top buyers across the globe, followed by the higher education and PreK-12 segments, respectively. This will change

over the forecast period, and by 2016, the top buyer will be PreK-12 segments followed by higher education institutions.

The key inhibitor in the corporate segment is commoditization and intense pricing pressures with suppliers competing solely on price. ***The revenues are still quite high in the corporate segment and will continue to be so throughout the forecast period.*** This is particularly true for the expenditures made by large multinational corporations. Corporate growth rates depend on where the companies are located. For example, in the US, even though the corporate growth rate is flat-to-slightly-negative, the revenues (***in the billions of dollars)*** will remain steady from 2011 to 2016.

Only the US and Canada forecasts have granular breakouts by the eight buyer segments tracked by Ambient Insight.

The global growth rate in the consumer segment is a relatively healthy 13.4%. In contrast, in the US the consumer segment has a negative growth rate. This is primarily due to product substitution with US consumers opting for other learning products instead, particularly Mobile Learning. Consumers are the top buyers of Self-paced eLearning in South Korea outspending all the other buying segments.

Finding the buyer in many countries across the globe can be daunting as many supply chains are made up of government agencies, universities, private schools, domestic companies, international companies, trans-regional consortiums (like the African Virtual University), NGOs, and foreign government funding agencies.

Often the foreign entities operating in these supply chains are the actual buyers of eLearning products and services. They then in turn donate or resell those products at highly subsidized prices. This report describes those supply chains and identifies the real buyers in each of the 85 countries analyzed in this report.

Many countries have centralized educational systems run by government agencies and they are the primary buyers of academic content, outspending corporate buyers in those countries. This report identifies the countries with state-run centralized education ministries that buy learning technology products directly from suppliers. It also identifies the major suppliers doing business with the education ministries. Both offer points of entry for suppliers trying to enter those markets.

State, provincial, and local governments are also avid buyers, primarily for employee training, but they also purchase products for their constituents. Government-funded libraries are strong buyers of Self-paced eLearning in many countries. Governments even purchase eLearning products for prisoners. The State of Florida's Department of Corrections contracts with Smart Horizons Career Online Education to provide Self-paced eLearning to Florida inmates.

Federal government agencies across the planet are avid buyers of Self-paced eLearning products. For example, the National Health Service (NHS) in the UK purchases a significant amount of custom development services for courses used to train their employees and to educate the public on healthcare issues. Two major suppliers to the NHS are eXact learning

solutions, a leading provider of learning content management, and e-Learning for Healthcare (e-LfH), a commercial content developer in the UK.

A consistent international buying pattern is the growing demand for Self-paced eLearning in government agencies.

Trans-national government bodies also represent revenue opportunities for suppliers. NATO now has over 100 online courses on their Self-paced eLearning portal. The World Bank and UNESCO fund a great deal of digital learning content. In March 2012, the UNESCO office in Bangkok released, "a collection of eLearning tools aimed at high school students, university students, educators, and teacher trainers as part of UNESCO's ICT in Education Teacher Training Series."

The World Bank Institute (WBI) operates an online learning portal that includes both free and fee-based Self-paced eLearning courses designed for policy makers and development professionals. The WBI is both a buyer and a reseller of Self-paced eLearning products.

The healthcare segment is a very complex, and relatively opaque, supply chain in most countries in the world. It is not a monolithic vertical, but rather an amorphous cluster of buyers. The buyers for Self-paced eLearning in the healthcare segment are actually spread out among consumers, corporate, academic, government, and association segments. This is true even in countries with national healthcare programs. For example, device makers and pharmaceutical companies develop or purchase Self-paced eLearning for both provider education and patient education.

What Are They Buying?

The demand for a specific product type can be much higher (or lower) in a particular region. For example, the growth rate for specialized authoring software tools is negative in North America, yet quite positive in Africa, Asia, and Eastern Europe. The demand for installed learning platforms is flat in Western Europe whereas in Eastern Europe where the growth rate is quite high.

There is one common denominator across all regions. ***The Self-paced eLearning product type that will generate the highest revenues throughout the forecast period is packaged content.***

There has been an explosion in the adoption of cloud-based learning platforms in the last two years. This has effectively revitalized the highly-commoditized learning platform sector of the industry. The adoption is highly concentrated in specific countries and buying segments.

The most significant long-term revenue opportunity for suppliers across the globe is the demand for academic content across the educational spectrum from preschool to higher education to vocational training.

Language learning content, particularly digital English language learning, is also in high demand, even in the US. ***(Source: The Worldwide Market for Digital English Language Learning Products and Services: 2011-2016 Forecast and Analysis Ambient Insight, LLC.)***

Cloud-based authoring tools and learning platforms have the highest growth rates across all products in four out of the seven regions analyzed in this report.

Figure 7 - 2011-2016 Worldwide Self-paced eLearning Five-year Growth Rates by Five Product Types

There are distinct regional differences and the buying behavior can be quite different in each region, and in countries within a region.

As schools, academic institutions, and vocational centers across the globe migrate to digital content, a massive amount of commercial, open, and indigenous print-based learning content will be ported to self-paced digital courses. This represents a significant revenue opportunity for suppliers that offer custom content development and conversion services.

What Will You Find in This Premium Report?

This is the most comprehensive worldwide eLearning forecast report ever published. Ambient Insight has been compiling country-by-country data on the expenditures on eLearning across seven regions of the globe since 2004. This report offers a breathtaking view of the global eLearning industry.

There are two sections in this Premium report: a regional forecast and analysis broken out by 85 countries across seven regions and a global supply-side analysis broken out by five product types for each of the seven regions.

The regional forecast and analysis includes a breakout of the top buying countries in the region ranked by revenues. Ambient Insight only includes

countries with revenues over $1 million. The demand-side analysis provides suppliers with insight into the buying behavior of specific buying countries within regions. For clarity, we have placed the regional supply-side tables within each regional section.

The countries that are excluded from this report do not represent revenue opportunities for suppliers yet.

There are detailed country profiles for the 85 countries analyzed in this Premium report. Each country profile identifies the top buying segments, the catalysts and inhibitors, and the major domestic suppliers operating in that country.

Only the top buying countries (defined as those countries generating more than $1 million in revenues a year) are included in this report.

Except for the US and Canada, detailed breakouts by buyer segments are not included in the regional or country analyses. Ambient Insight provides detailed breakouts for the other countries on a custom consulting basis.

The supply-side analysis includes a global revenue forecast for five products compiled from the regional supply-side tables. For each region analyzed in this report, revenues are forecast for five types of Self-paced eLearning products and services including:

- Packaged content
- Custom content development services
- Cloud-based learning tools and learning platform services
- Installed authoring tools
- Installed learning platforms

Over 1,240 suppliers operating in specific countries are cited in this report, making it the largest index of country-specific suppliers in the world. This will help international suppliers identify local partners, distributors, resellers, and potential merger and acquisition (M&A) targets. The major domestic suppliers are identified for each country. These suppliers represent partnering opportunities for foreign firms and are distribution channels for third-party products.

Quantitative Methodology, Scope, and Definitions

Ambient Insight provides quantitative revenue forecasts based on our proprietary Evidence-based Research Methodology (ERM). We developed ERM by modifying and refining industry-standard quantitative methods to reflect the unique characteristics of the learning technology market.

ERM progresses from general patterns (the big picture) to very precise granular patterns. It is used to create a forecast model comprised of accurate predictors. The forecast model is refined as additional data become available.

Ambient Insight provides a detailed description of our Evidence-based Research Methodology in: Ambient Insight's 2013 Learning Technology Research Taxonomy.

The purpose of our taxonomy is to provide clarity to suppliers competing in a complex global market. Our research taxonomy is the foundation for identifying, cataloging, and indexing addressable revenue opportunities for suppliers marketing specific product types in particular buying segments in individual countries across the planet.

Ambient Insight gathers market and competitive intelligence from a wide spectrum of information broadly classified as leading and lagging indicators. Economic and market conditions are subject to change and the data in this report are current at the time of publication.

Many of the companies discussed in this report are publicly traded on various international stock exchanges and their financial disclosures provide baseline data for global sales, regional competitive pressures, and specific country-by-country business activity. All the publicly-traded international learning technology companies disclose growth rates and revenues by region and some disclose growth rates and revenues generated in specific countries.

International education publishers also tend to break out their revenues by regions and countries. Financial statements from pan-regional digital education publishers are excellent sources of data on buying behavior in specific countries.

Many private companies, particularly outside the US, report their revenues as a matter of policy. Those financial disclosures also provide baseline data for the demand for specific types of products in particular countries and regions.

Federal government and industry trade bodies, particularly in the US, Japan, South Korea, Germany, France, Canada, Ireland, India, and the UK, provide extensive data on export opportunities in specific international education markets. Federal, state, provincial, and local school agencies provide detailed reports on technology funding, the adoption of learning technology, and the buying behavior in the academic markets.

Several international bodies such as the World Bank, the UN, and the Commonwealth of Learning provide funding for projects and detailed data on the adoption of learning technology in developing countries.

The European Union funds ongoing research on the adoption of electronic learning in the EU and Eastern Europe. Eurydice is an executive agency of the European Commission that provides data on education systems and educational policies in Europe. The European Schoolnet (EUN) is a network of 30 Ministries of Education across Europe and provides country-specific detailed reports on the use of learning technology and digital content in Europe.

There are now distance learning and learning-technology trade associations in every region of the world and in over 50 countries. Publications, event presentations, and press from these associations provide valuable insight into the market conditions inside particular countries and regions.

Finally, there are dozens of international sites that focus exclusively on regional and global news pertaining to corporate Self-paced eLearning, digital learning content, digital education (across academic, vocational, corporate, and consumer segments), distance learning, virtual PreK-12 schools, and/or virtual universities. These sites provide news on financial statements from suppliers, policy mandates and funding from government agencies, merger and acquisition (M&A) announcements, private investment disclosures, and expenditures made by buyers.

Scope

The buying behavior in each region and countries within a region can be quite complex and this report limits analysis to the top buying countries in each region. The analysis in this report focuses on those regions and countries that currently represent the top revenue opportunities for suppliers. The analysis of long-term revenue opportunities in emerging markets is less detailed.

The revenue forecasts in this report are in US Dollars. There have been significant fluctuations in currency valuations in 2011 and 2012 and the forecasts in this report are based on international exchange rates as of November 2012. This report will be updated annually and suppliers are advised that currency fluctuations may significantly alter the year-to-year forecasts.

The multi-purpose enterprise platforms known as performance management systems, human resource management systems, or talent management systems are not included in this report. Many of these platforms do have learning management features that are used to track Self-paced eLearning content, but the modules are not sold separately.

This report does not include analysis of general-purpose content management systems that are now used to manage learning resources. For example, Microsoft's SharePoint platform is now being used by a growing number of corporations to manage Self-paced eLearning content. This is an example of product substitution that is actually a market inhibitor for legacy products.

A detailed description of Ambient Insight's Evidence-based Research Methodology is included in our research taxonomy.

This report does not include forecasts for other learning technology products such as Simulation-based Learning or Collaboration-based Learning products often marketed as "eLearning" by suppliers.

Definitions

Ambient Insight provides a granular definition of learning technology product types in: Ambient Insight's 2012 Learning Technology Research Taxonomy

Ambient Insight defines Self-paced eLearning as self-paced courseware products and services. This includes off-the-shelf packaged content; two types of services (custom content development and hosted learning

platforms); and two types of software technologies; (installed learning management platforms and authoring software tools.)

The defining characteristic of Self-paced eLearning is the pedagogical structure imposed by formal instructional design and systematic development of the products to meet specific performance goals.

Installed Self-paced eLearning technology includes learning management systems (LMS), learning content management systems (LCMS), courseware management systems (CMS), education management systems (EMS), and the range of products used in PreK-12 for tracking instructional content usually called student information systems (SIS) or classroom management systems (CMS).

The screen capture tools used to create software application simulations are defined as Simulation-based Learning tools by Ambient Insight and are not covered in this report.

Ambient Insight defines cloud-based products and products sold via the Software-as-a-Service (SaaS) model as hosting services in our market research. Access to the products is sold as a service and customers do not actually own or install the products.

Related Research

Buyers of this report may also benefit by the following Ambient Insight market research:

- The Worldwide Market for Digital English Language Learning Products and Services: 2011-2016 Forecast and Analysis
- The Worldwide Market for Mobile Learning Products and Services: 2010-2015 Forecast and Analysis
- The Worldwide Mobile Location-based Learning Market: 2011-2016 Forecast and Analysis
- The US Market for Mobile Learning Products and Services: 2010-2015 Forecast and Analysis
- The US Collaboration-based Learning Market: 2010-2015 Forecast and Analysis
- Ambient Insight's 2012 Learning Technology Research Taxonomy

"We Put Research into Practice"
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