

Ambient Insight's

The US Market for Handheld and Mobile Game-based Learning Products: 2007-2012 Forecast and Analysis

EduGaming the System: Creating New Customers and Tapping New Revenues in a Complex Competitive Landscape



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www.ambientinsight.com

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Published: October 2007

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For the entire report, Ambient Insight offers a single flat-rate price of \$9,125.00 (USD) for an organizational worldwide site license (multiple sites and unlimited users) and includes two hours of analyst time.

Buyers may also purchase a site license to any of the nine sections of the report. The nine 2007-2012 forecast sections of the report include six buyer sections and three product sections.

2007-2012 US Mobile Game-based Learning Forecast	Forecast	Pages	Tables and Charts	Site License Price (\$USD)
Buyer Reports				
Consumer	Broken out by six mobile edugame types: Knowledge-based, Skill-based, Brain Trainers, Simulation, Language Learning, and Location-based Games	8	3	\$1,600.00
Government	Broken out by six mobile edugame types, services, and tools across four government sub-segments: Federal Military, Federal Military, State Agencies, and Local Agencies	8	2	\$1,600.00
Academic	Broken out by six mobile edugame types, services, and tools across PreK-12 Academic and Higher Education	9	3	\$1,600.00
Corporations & Business	Broken out by six mobile edugame types, services, and tools	8	2	\$1,600.00
Non-Profits Associations	Broken out by six mobile edugame types, services, and tools	6	2	\$1,600.00
Healthcare	Broken out by six mobile edugame types, services, and tools	7	3	\$1,600.00
Product Reports				
Packaged Content	Broken out by six major game types: Knowledge-based, Skill-based, Brain Trainers, Simulation, Language Learning, and Location-based Games across eight buyer segments	8	3	\$3,200.00
Services	Broken out by custom game services, advergaming services, and location-based learning game services across eight buyer segments	8	3	\$3,200.00
Tools and Platforms	Broken out by software tools and installed platforms across eight buyer segments	8	3	\$3,200.00

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Executive Overview

The market conditions for Handheld and Mobile Game-based Learning products are very favorable in the US. The demand is growing by a five-year compound annual growth rate (CAGR) of 26.5%.

The handheld and mobile learning game market comprises 5.8% of the total US mobile gaming market. This percentage will likely shrink over the forecast period not due to the lack of demand, but rather due to the explosive growth of the greater mobile game market. In October 2007 Verizon Wireless reported that they had experienced a 38% increase in the 2007 sales of mobile games compared to 2006.

The US market has undergone a remarkable transformation in the last 12 months. Less than two years ago the demand for mobile educational games was highly localized to an early childhood education niche in the consumer and PreK-3 buyer segments.

There is resurgence in demand, but this new demand is coming from entirely different buyer demographics. The new demand is in response to new types of products that appeal to a much wider audience. Game developers like Nintendo and Ubisoft have proven that new customers can be created and new revenues can be tapped for new education-related mobile games, commonly referred to as mobile edugames.

This report includes an analysis of the demand-side and the supply-side aspects of the market. The demand-side analysis breaks out revenues by eight buyer types: consumer, corporations, federal government, state and local government, PreK-12 academic, higher education, non-profits, and healthcare.

The supply-side analysis breaks out revenues by three product types: content, services, and tools. The content analysis includes a detailed break out for five types of edugames: knowledge-based, skill-based, brain trainers and cognitive remediation, role-playing and simulation, and language learning.

There are new revenue opportunities for suppliers capable of meeting the needs of new buyers. Traditional gaming industry suppliers have already staked out territory in the consumer space. So-called "advergaming" experts from the advertising industry have started to claim territory in the corporate segment. These competitors are experts at gaming, but lack educational expertise. This leaves the field open for "serious game" suppliers that specialize in education, training, and behavior modification.

The game development and publishing firms are coming up-to-speed on education and learning while the training and education experts are mastering gaming concepts. Due to the demand for the new products these two camps are already partnering on development. Gaming companies have begun to license content from well known

The user demographic for mobile edugames within the consumer market is now quite diverse. Suppliers that can target sub-segments of this demographic can create new customers and tap new revenues.

education training and education experts. Training experts are collaborating with game developers in a new vibrant community known as the serious games movement.

Suppliers touting cognitive research-based products are topping the charts. There is a gold-rush mentality surrounding a new genre of games called "trainers" in general and brain training games in particular. The trainer games being developed in Japan are the top selling games in the US so far. These games incorporate the cognitive theories of educational experts and have been designed with the active assistance of the cognitive science and educational psychology specialists.

This report includes the forecasts for games delivered on four types of handheld devices: dedicated gaming devices (such as the Nintendo DS or the Sony PSP), personal media players (PMPs), personal digital assistants (PDAs), and cell and smartphones.

The primary inhibitors in the market are the complexity of the supply chain, the complicated content licensing process, and the difficulties of getting a new game to market. Just knowing the buyers is not always enough and getting a game to market can be a daunting task. This process is an educational game in itself requiring strategy, skill, and incentive. The incentive in this case is the revenue opportunity.

The market conditions are now very favorable for suppliers that design and develop Mobile Game-based Learning products and are also able to "edugame the system."

Number of Pages, Tables, and Charts

There are 54 pages, 7 tables, and 6 figures in the report.

Filesize

The full report is a 1.1MB PDF file.

Demand-side Analysis

This report provides revenue breakouts by eight demand-side buyers: consumer, corporations, federal government, state and local government, PreK-12 academic, higher education, non-profits, and healthcare.

Supply-side Analysis

The supply-side analysis breaks out revenues by three product types: content, services, and tools. The content analysis includes a detailed break out for five types of edugames: knowledge-based, skill-based, brain trainers and cognitive remediation, role-playing and simulation, and language learning.

Suppliers Covered

Active Ingredient, Activision Publishing, Adobe, AE4RV, area/code, Apple, Aspyr Media, Cammssoft, Capcom Interactive, Chalk Media,

The legacy distribution models for video game products are quite complex and new suppliers should explore new non-traditional distribution channels described in this report.

Cengage Learning (formerly Thomson Publishing), Concrete Software, Conspiracy Entertainment Corporation, Digitalmill, Dimple Entertainment, Disney Interactive, Dositey Corporation, EA Mobile, Eidos Interactive, Extreme AI, FableVision, FluffyLogic, From Software, Game Editor, GameFly, Gamelion, Gameloft, Game Mine, Gamerang, GameznFlix, Gamma Gamer, GXB Interactive, GeoTrek, GestureTek Mobile, Gorilla Games, Glu Mobile, GottaPlay, GPlay, Handango, Handmark, HandyMed, Happy Neuron, Hasbro, HP Labs, Impressionware, IntelliGolf, Into the Game, I-play, iPodsoft, Kallisto Productions, Kaplan, Knowledge Probe, LDW Software, Leading Step, LingvoSoft, Local Games Lab, Lunagames, Majesco Entertainment Company, Mastersoft Mobile Solutions, MediaClick, McGraw-Hill, Microsoft, MindHabits, MobiHand, Mobile LifeStyles, MobileTutor, Mobliss, Nintendo, Nokia, NumbThumb, Oberon, Omega Mobile, PopCap Games, Qplaze, Rave Wireless, Resco, Scholastic, Sega, SegTech, Sony, Spb, StudyCell, Taito, THQ, TimeLapse Mobile, TOMY Corporation, UbiSoft, UFO Interactive Games, Urban Interactive, Vyro Games, and Warelex.

Questions Answered in this Report

The favorable market conditions are due to many catalysts. There are several major growth factors driving the US Mobile Game-based Learning market. This report answers the following questions:

- What types of games represent the best revenue opportunities for suppliers?
- Which types of games appeal to particular buying segments?
- What are the barriers to entry for new suppliers?
- Which buying segments are the top buyers throughout the forecast period?
- What products have the best long-term revenue growth?
- How do successful suppliers navigate the complex supply chain?
- What distribution methods are suppliers adopting in the current market?
- Who are the top suppliers in the competitive landscape?
- What devices are customers using to play the games?
- What are the market catalysts and inhibitors in the current market?

Demand is being accelerated by business and cultural catalysts such as the adoption of Mobile Learning, the serious games movement, brain fitness and educational neuroscience research, customer education advergaming, and the "games for health" initiatives.

Fundamentally new types of games are now hitting the market and new customers are being created. The current market favors suppliers that can continue to create new customers and meet the needs of these new buyers.

Methodology

Ambient Insight provides market revenue forecasts based on our proprietary Evidence-based Research Methodology (ERM). The Evidence-based Research Methodology is an iterative process based on predictive analytics used to identify revenue opportunities for suppliers. ERM progresses from general patterns (the big picture) to very precise particular patterns. It is used to create a forecast model comprised of relevant predictors.

The forecast model is refined as additional data becomes available. Ambient Insight triangulates baseline revenues from three "analysis vectors" that include:

- Supply-side analysis
- Demand-side analysis
- Product and service category analysis

Once the baseline revenues are triangulated Ambient Insight uses the data to forecast the Total Addressable Market (TAM). Ambient Insight uses the data derived from the Evidence-based Research Methodology quite literally as evidence to support our market forecasts.

Ambient Insight always substantiates analyses with specific examples of branded products, product prices, suppliers, and customers. We put research into practice.

Definition of Mobile Game-based Learning

Mobile Game-based Learning is a hybrid product that combines Mobile Learning and traditional Game-based Learning (aka edugames). Ambient Insight defines Mobile Learning in general as knowledge transfer events, content, tools, and applications built using Mobile Information Architecture and accessed on handheld computing devices.

All handheld educational games (mobile edugames) are explicitly designed for behavior modification, pedagogical intervention, or cognitive remediation. The first two are common but the third is relatively new in the US market.

Cognitive remediation is based on brain-based learning theories emerging from a new field of study known as educational neuroscience. It is an instructional method that targets the neuro-physiological processes involved in learning and has little in common with traditional instructional design principles.

The intent of Mobile Game-based Learning designers is to provide a user with a gaming experience that produces in a change in a mental state or behavior (learning) that can be recalled or repeated later (memory).

Suppliers that intend to tap the new revenues for brain trainer games need to become acquainted with Mobile Information Architecture, game design, and new research coming out of the educational neuroscience field.

Ambient Insight defines six major types of edugames: knowledge-based, skill-based, brain trainers and cognitive remediation, role-playing and simulation, language learning, and location-based learning (LBL) games.

Scope of this Report

The data in this report are US-centric and only the buying behavior of US buyers is analyzed regardless of whether they buy from offshore vendors.

This report does not include forecasts for products marketed as strategy, puzzle, or logic games. These games are often marketed as "casual games" and while they do relate to learning, they are not designed to modify behavior.

There are many sports-related mobile games including basketball, football, golf, pool, and skateboarding. Players do identify with characters and the mobile games often simulate the conditions experienced in a real sports event. However these games are not explicitly designed for educational purposes and the revenues for these sports games are not included here.

Used game sales and revenues from rentals are not included in this forecast. Sales made to wholesale distribution companies and wholesale college textbook companies are also excluded. They buy directly from the publishers at wholesale prices and resell to retailers. Most large retail chains buy directly as well. This report does not cover those bulk sales but only the retail sales.

This report does not include games delivered and sold on dedicated single-game devices or cartridges. These device-embedded gaming products are often marketed as early childhood educational toys and are known as personal learning tools. There is a \$720 million market in the US for this highly-specialized type of product. LeapFrog's LeapPads are examples of this type of product. Other competitors include Hasbro, Mattel, Franklin Electronic Publishers, VTECH, and AlphaSmart, (now owned by Renaissance Learning).

Ambient Insight excludes these products because they are closed systems that represent a significant barrier-to-entry for new suppliers. As long as these systems remain closed there is very little revenue opportunity for new suppliers.

Pricing Models for the Report

In 2007 Ambient Insight moved to a single, flat-rate, transparent pricing model. The new pricing model is based on an organizational site license.

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