The State of the Mobile Learning Industry

Key Findings from Ambient Insight Research:

"The US Market for Mobile Learning Products and Services: 2009-2014 Forecast and Analysis"

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Ambient Insight



Agenda



- Introductions
- Research Taxonomy and Product Definitions
- Key Findings from Ambient Insight Research
- Native Mobile Learning Types and Examples
- Segment Buying Behavior: Trends, Catalysts, and Inhibitors

Partial List of Ambient Insight's Clients

Ambient Insight is an integrity-based market research firm that uses predictive analytics to identify revenue opportunities for suppliers.

- Adobe
- Amazon
- Apple
- Dell
- Disney
- Elluminate
- Epocrates
- Gartner
- Global Knowledge
- Hasbro
- IBM
- Kaplan
- Microsoft
- NIIT
- Proctor & Gamble
- SkillSoft



Ambient Insight's Learning Technology Research Taxonomy

Eight Buyer Segments

- Consumer
- PreK-12
- Higher Education
- Corporations and Businesses
- Federal Government
- State and Local Government
- Associations, NGOs, and Non-Profits
- Healthcare

Buy Eight Types of Pedagogically-defined Learning Products

- Self-paced eLearning Courseware
- Digital Video, Text, & Audio Reference
- Test Prep & Exam Products
- Collaboration-based Learning
- Social Learning
- Simulation & Game-based Learning
- Cognitive Learning
- Mobile Learning

From Four Types of Suppliers

- Packaged Content
- Custom Content Services
- Software as a Service (SaaS)
- Tools and Installed Technology

Ambient Insight's Definition of Mobile Learning Products and Services

Ambient Insight defines Mobile Learning as knowledge transfer events, content, tools, and applications built using Mobile Information Architecture and accessed on handheld computing devices.

Mobile Learning Products

- Handheld decision support and performance support
- Content development tools
- Installed platforms
- Technology services
- Content services
- Location-based Learning Services
- Device-embedded Learning
- Packaged content

Mobile Learning Products *Specific to Healthcare*

- Handheld medical emergency and clinical decision support
- Content development tools
- Installed platforms
- Technology services
- Content services
- Point-of-care Location-based Learning
- Medical Device-embedded Learning
- Reference, CME, and exam prep

Ambient Insight identifies three native types of Mobile Learning: Handheld Decision Support, Location-based Learning Services, and Device-embedded Learning.



Key Findings:

"The US Market for Mobile Learning Products and Services: 2009-2014 Forecast and Analysis"

Mobile Learning Entering a Mature Market Phase



Entering the Mature Market Phase: Historical Analysis of the US Demand for Mobile Learning

Source: "The US Market for Mobile Learning Products and Services: 2009-2014 Forecast and Analysis," Ambient Insight, LLC



Ambient Insight's 2009-2014 US Mobile Learning Market Research: Key Findings

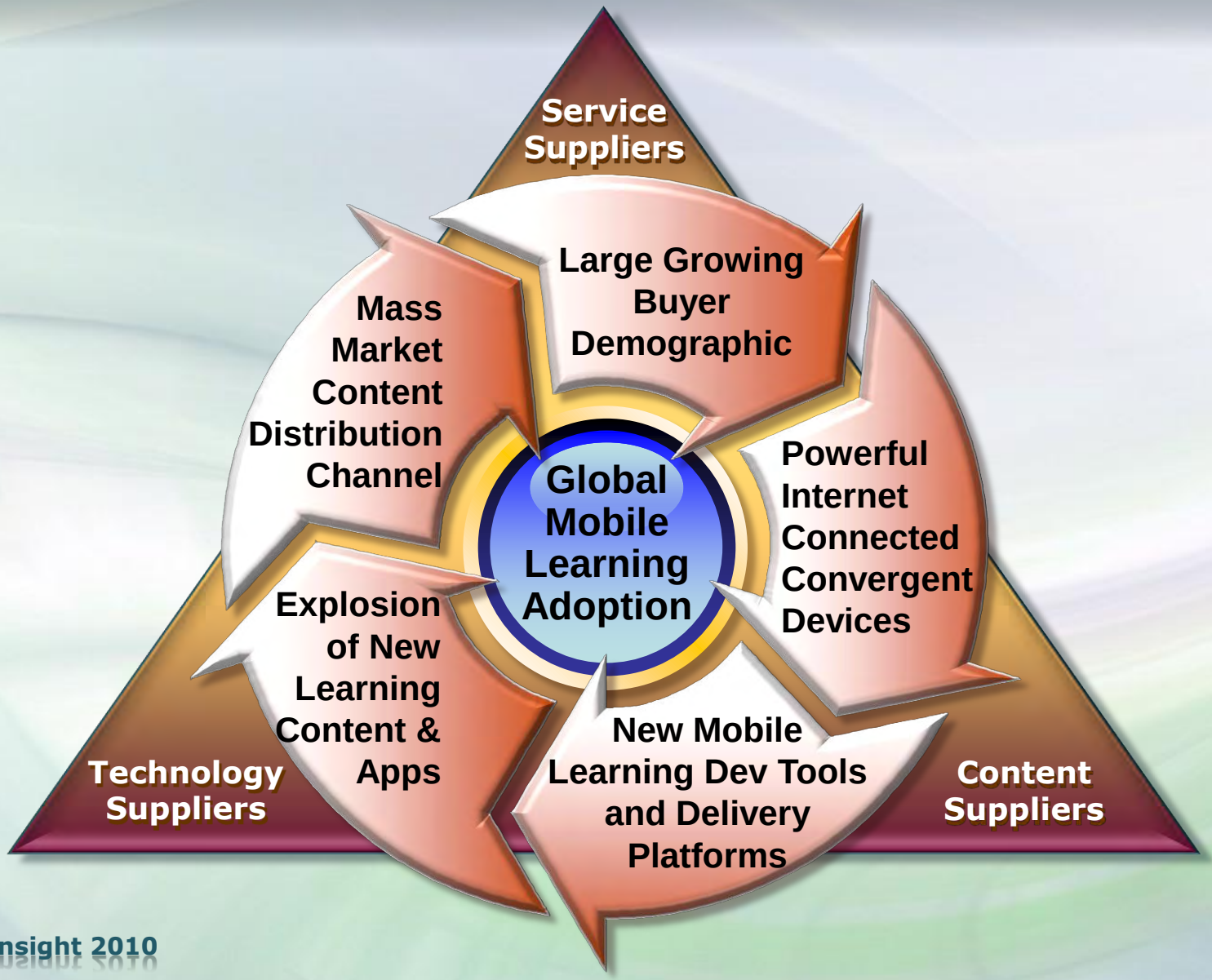
Source: "The US Market for Mobile Learning Products and Services: 2009-2014 Forecast and Analysis," Ambient Insight, LLC

Key Findings:

- Revenues reached $632.2 million in 2009. The market is growing at 18.3% and revenues will top $1.4 billion by 2014
- Content is King – highest growth rate and accounts for highest revenue throughout the forecast period
- Consumer and Healthcare buyers dominate the market
- New ***native*** Mobile Learning development tools and delivery platforms continue to come on the market
- New eReader and Tablet suppliers targeting education
- Wholesale Applications Community (WAC) launched in February 2010: 29 global telecoms and device makers creating single standard for ***Web-based*** mobile apps



"A Perfect Storm" Drives Adoption of Mobile Learning



Native Mobile Learning Platforms: New to Market

- **Launched in 2009-2010:**
  - Emantras' Mobl21
  - Inkling - "the world's first end-to-end platform for mobile learning."
  - Irynsoft's VIRT2GO - Virt U "mobile education platform"
  - Blackboard's Mobile Learn, "will bring two-way teaching and learning to mobile devices."
  - Multiply IT's MobileEducator is the "fully-customizable mobile application platform for universities, schools, and colleges for iPhone, Android, Blackberry and Mobile Web."
  - Achieve Labs' Push Mobile Media platform and LearnCast
  - Dashe & Thomson's MobileDashe – Mobile Training Delivery Platform
  - Train by Cell (spin off of Guide by Cell)
  - TATE's iMTS – Mobile Training Solution
  - Alion's electronic Collaboration Capabilities (eC²) system

Device-embedded Learning



Consumer and K-12 Device-embedded Learning:



Fisher Price iXL – “The iPad for Preschoolers”



Infinitoy’s QUIZMO - "is the fun, interactive handheld quiz game with an electronic brain that knows the answers to 693,135 questions.”



LeapFrog - Crammer Study & Sound System - “is a quiz-based study guide system, a Spanish-English language translator, and personal music player.”



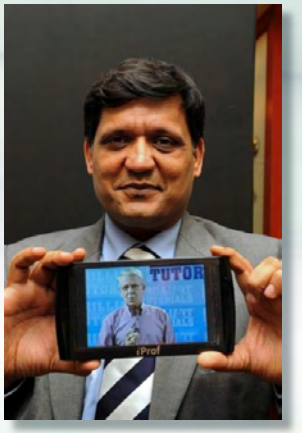
Franklin Publishing - The Princeton Review Pocket Prep for the NEW SAT - “the Portable Interactive Handheld Tutor features comprehensive verbal, math, and essay preparation, full length practice tests, instant scoring and personal diagnostic reports.”



June 2010 - LeapFrog‘s Leapster Explorer –” for a total ***mobile learning*** experience.” It is an eReader, PMP, and gaming device designed for 4-9 year olds.

Device-embedded Learning: Personal Learning Devices Very Popular in Asia

Talking dictionaries, talking phrasebooks, talking translators, talking teachers



iProf Personal Learning Tablet used in physical "iStudy" zones in India



SAFA Magic Study Touch in Korea is a talking English language learning device



Noah Education – China. Personal Learning Devices with over 28,000 learning mini-courses – half are English language learning



PenPower – China –Children learn Kanji and English with writing tablet



Nokia Mobiledu and ETS - TOEFL Exam Prep

Nintendo launched DS Classroom in 2009 with major push into Japanese schools in 2010 – bundles device, educational software, and PC-based tracking for teachers

Handheld Decision Support



Handheld Decision Support – The Rise of Blue Collar Geeks

55%-60% of the US workforce does NOT sit at a desktop computer all day. Field workers use handheld diagnostics and performance support products that include detailed procedural maintenance, repair, and troubleshooting content.



Wonderware's IntelaTrac – "mobile workforce and decision-support solution - Dynamic procedures triggered on asset condition"



Tetra FieldBook



Emerson 475 Field Communicator



Fluke Thermal Imager



Alluviun's HazMaster3 Decision Support System



Honeywell's Mobile Station Tablet

Handheld Decision Support – The Rise of Blue Collar Geeks

Access the car's on board computer on all OBDII-compliant vehicles made after 1996 - 16-pin Data Link Connector (DLC), which is universal on all 1996 and newer OBD2-certified vehicles



"CarMD can track up to 3 of your cars' health. In addition, the website www.CarMD.com has an online database of thousands of problems and their solutions as seen by auto techs over the past 10 years."



Auto Nexiq Pro-Link IQ Scanner – "hand-held scan tool for commercial vehicle repair, maintenance, and information."



"Snap-on Diagnostics' Verus handheld gives technicians the answers they need to manage the customer, the vehicle, the diagnosis, and the repair. Verus includes troubleshooter tips, test procedures, and wiring diagrams."

Location-based Learning
and Mobile Augmented Reality



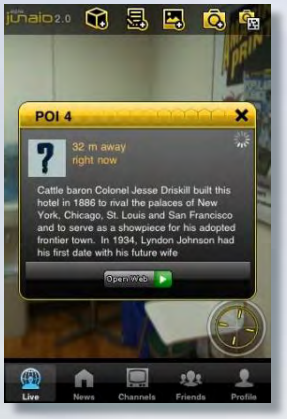
Location-based Learning – Museums, Tourist Attractions, Parks, Landmarks, Cities, Universities

- Non-profits and government agencies top buyers
- Guide by Cell has hundreds of global clients
- SCVNGR targets higher education buyers
- Number of services suppliers has doubled in 18 months
  - Several suppliers now sell specialized authoring tools
- Visual recognition technology used in Location-based Learning - Plink Art acquired by Google in February 2010
- Two major mobile augmented reality platforms: SPRXMobile's Layar and metaio's junaio
- New products: SREngine in Japan, Insqribe in Australia, and ApolloEyePhone in Germany
- Tagging and user-generated content now integral to mobile augmented reality products – ***Social Mobile Learning***
- Apple filed Mobile Augmented Reality patent in mid-2009

Location-based Learning – Augmented Reality and Augmented Fantasy



SPRXMobile's Layar – "Augmented Reality Browser" has an app store



metaio's junaio "recognizes the image and overlays dynamic data, true to position, scale and target group into the real world view of the camera."



Mobilizy's Wikitude World Browser links GPS coordinates with Wikipedia's tens of thousands of geo-tagged entries



Augmented ***Fantasy*** – Ghostwire (not learning, but interesting)



Cyclopedia also ties into Wikipedia's geo-tagged entries



Distance Suns astronomy app

Segment Buying Behavior Overview:

Consumer and Healthcare Buyers Dominate the Market



Consumers Are Top Content Buyers

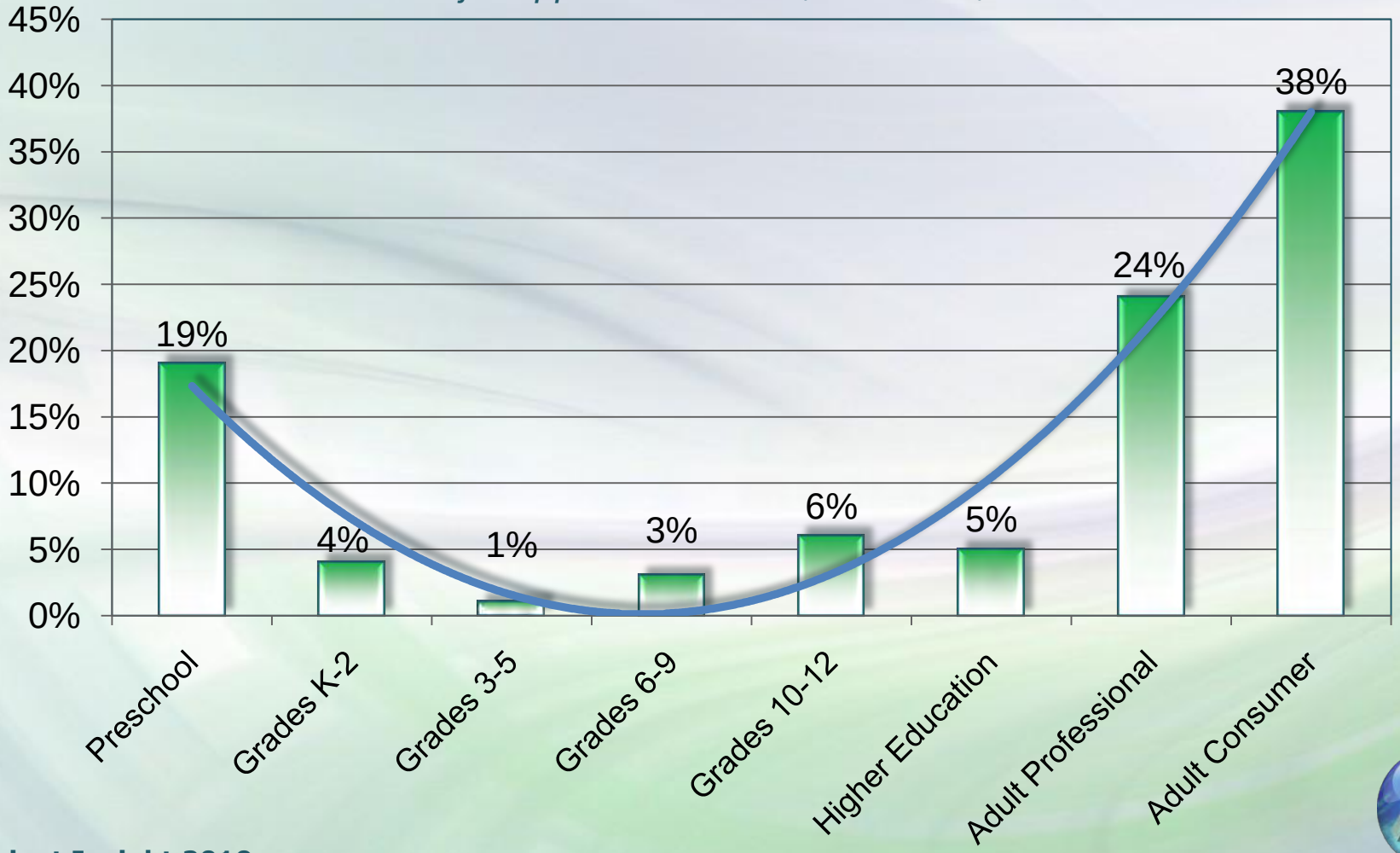
- Consumers buy content and Device-embedded Learning – they ***do not*** buy services or technology
- Content in demand ranges for preschool titles, test prep, professional content, language learning, music education, physical education, and "hobbies."
- Hobbies inlcude: Bird Guides, Astronomy, Cooking, Fitness, Gardening, Auto Repair, and dozens of others
- In the last two years Nintendo sold 24.0 million DS devices and Sony sold 6.4 million PSPs in the US
- Brain Trainers leading mobile edugame in the US
- Short Codes: Send the message Activators to 21534



"The Content Trench" – Percent of Total Paid Mobile Learning Applications in Content Catalogs by Target Demographic

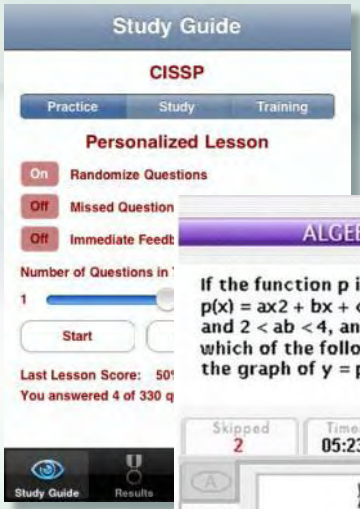
What's on the Store Shelves?

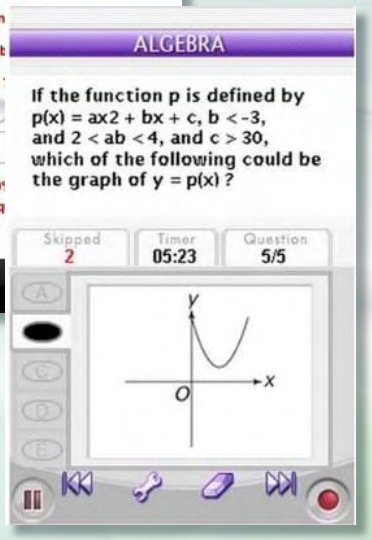
Consumer-facing Paid Mobile Learning Content
Across All Major Application Stores, Platforms, and Devices



Boom in Demand for Mobile Academic Test Prep, Certification, and Licensure Exam Prep

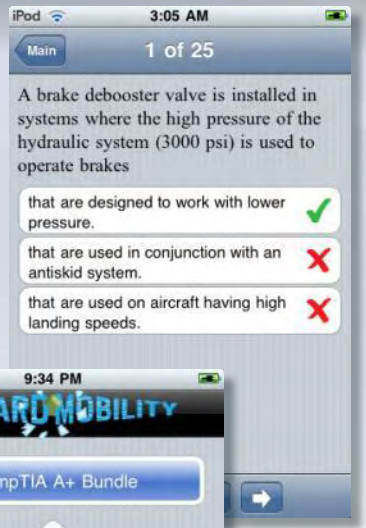
Tech 2000 - Expanded Security - (ISC)² Certified Information Systems Security Professional (CISSP) Exam Prep





Nintendo, The Princeton Review – MySAT Coach

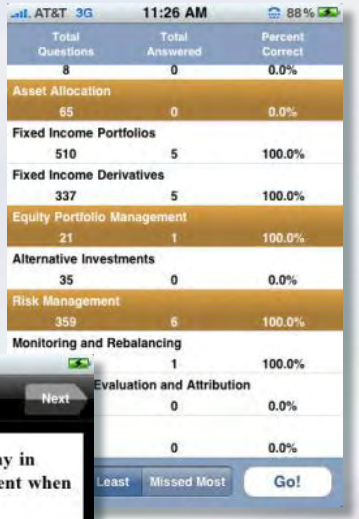
Tekk Innovations - FAA Aviation Maintenance Technician General Knowledge Exam Prep

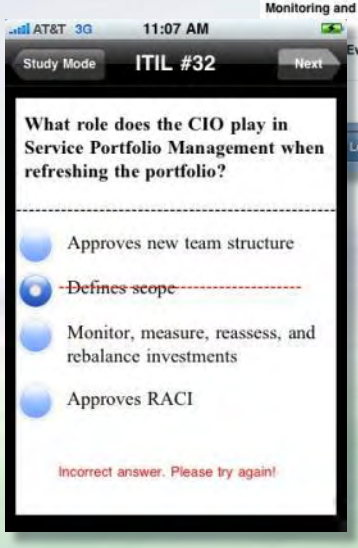




Upward Mobility - CompTIA A+ Certification Exam Prep

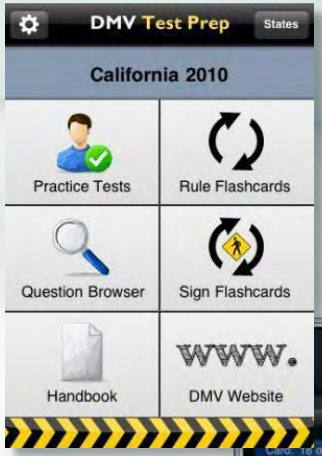
Allen Resources - CFA Exam Level III 2010
2,100+ CFA Exam Questions





ITIL V3 Foundation Certified Project Manager

New International Trend: Consumer Demand for Mobile Driver Test Prep





DMVPrep.com - DMV Test prep



Drivers Ed Portable has content for all 50 US states, 13 Canadian provinces and territories, as well as Spain, Italy, France, Germany and the United Kingdom

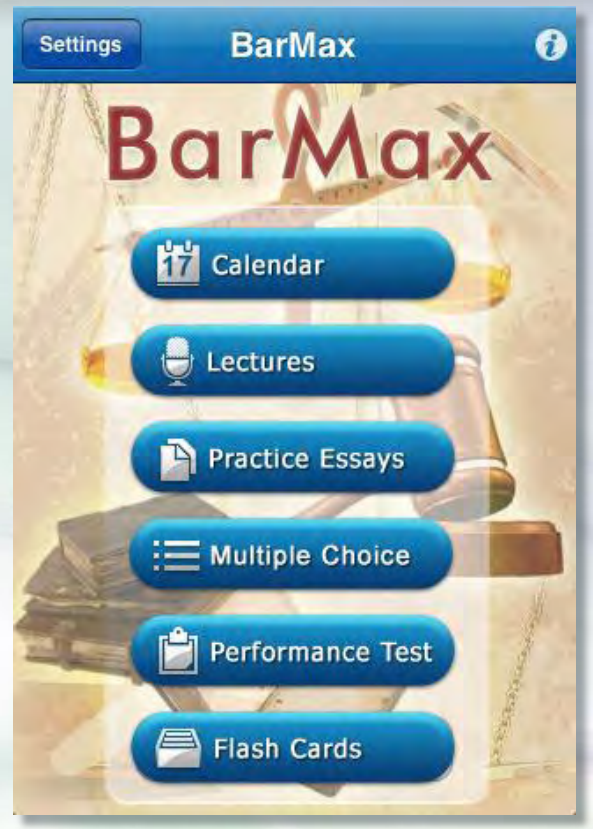


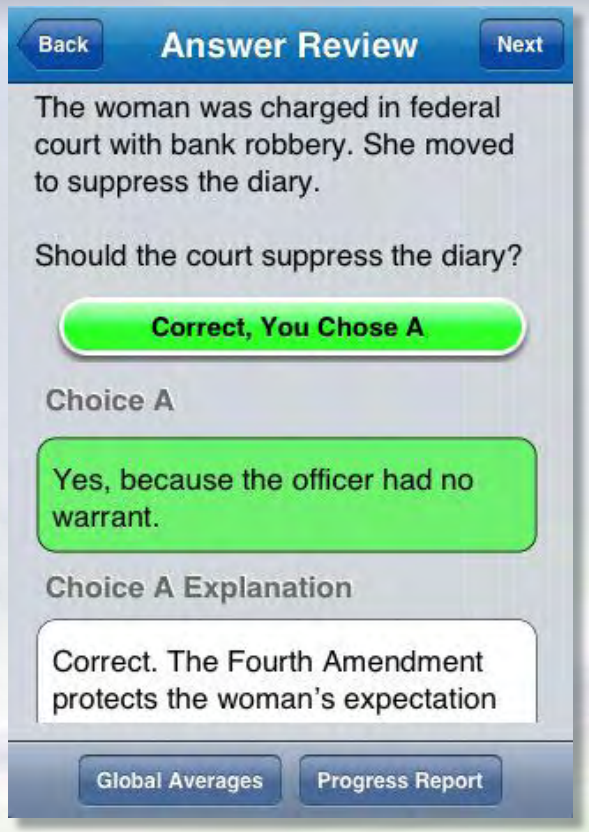
MagicMundo - Official Driver Theory Test (Ireland)



UK Driving Standards Agency - Motorcycle Theory Test

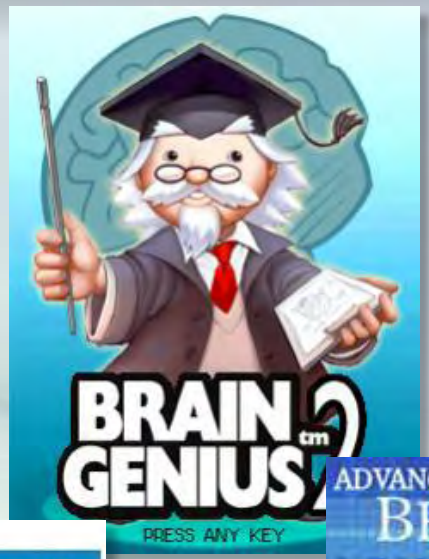
Certification and Licensure Exam Prep





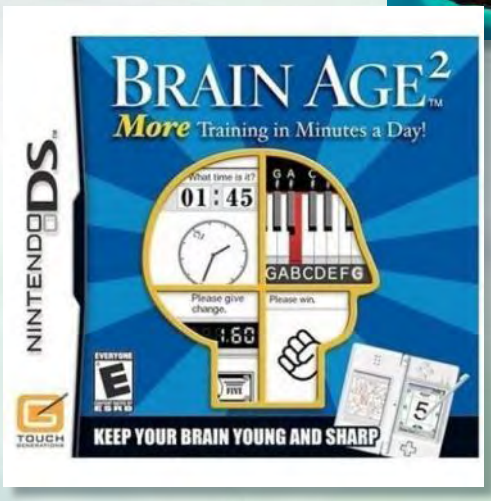
BarMax – The most expensive application in the App Store. Exam prep for the California Bar Exam sells for $999.00.

Top Selling Mobile EduGames in the US: Mobile Brain Trainers











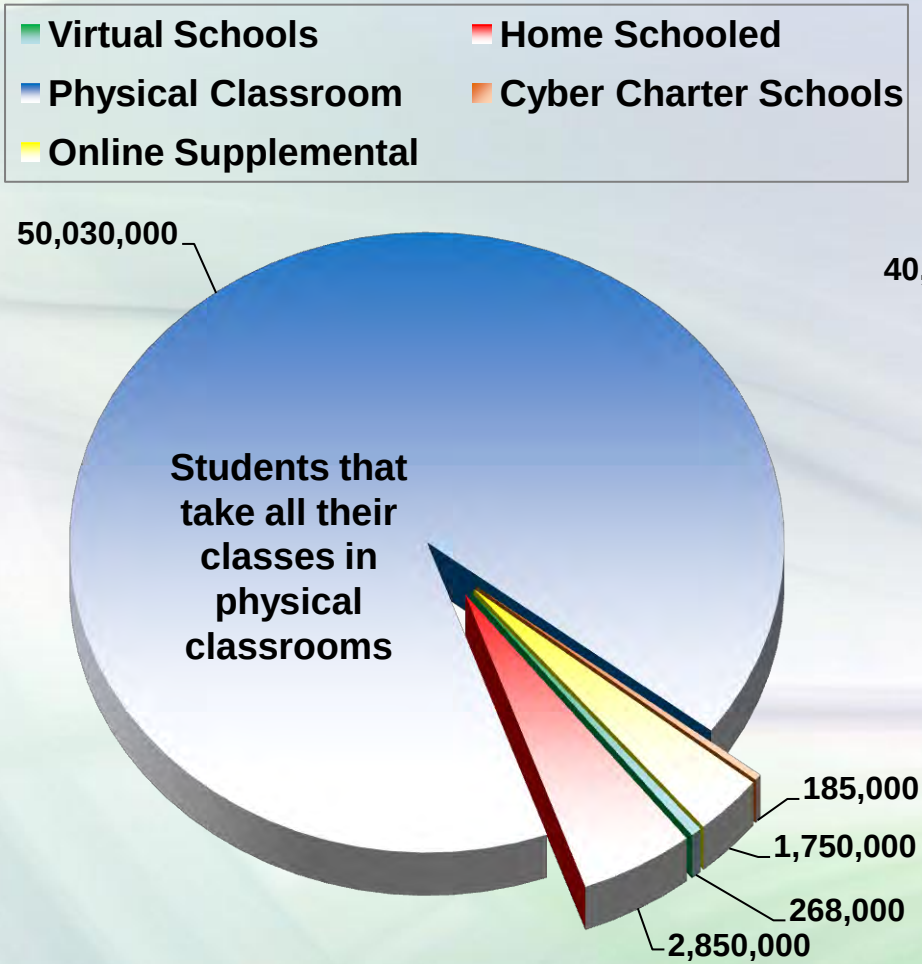
PreK-12: Technology Saturation Inhibits Growth

- 100% of public schools have computers with Internet access with a ratio of one computer per 3 students
- 73% of schools have interactive whiteboards and 38% use student response systems
- Mobile Devices - May 2010: US Department of Education report released "Educational Technology in US Public Schools: Fall 2008"
  - 56% of public high schools and 47% of primary schools were providing handheld computing devices ***to administrators***
  - Only 15% of public schools were providing handheld devices to teachers
  - ***Only 4% provided them to students with one device per 21 students***
  - ***Yet, 13% of all schools hand out PMPs/iPods with a ratio of one device per 69 students***
- LeapFrog generates 20% of their revenue from PreK-3

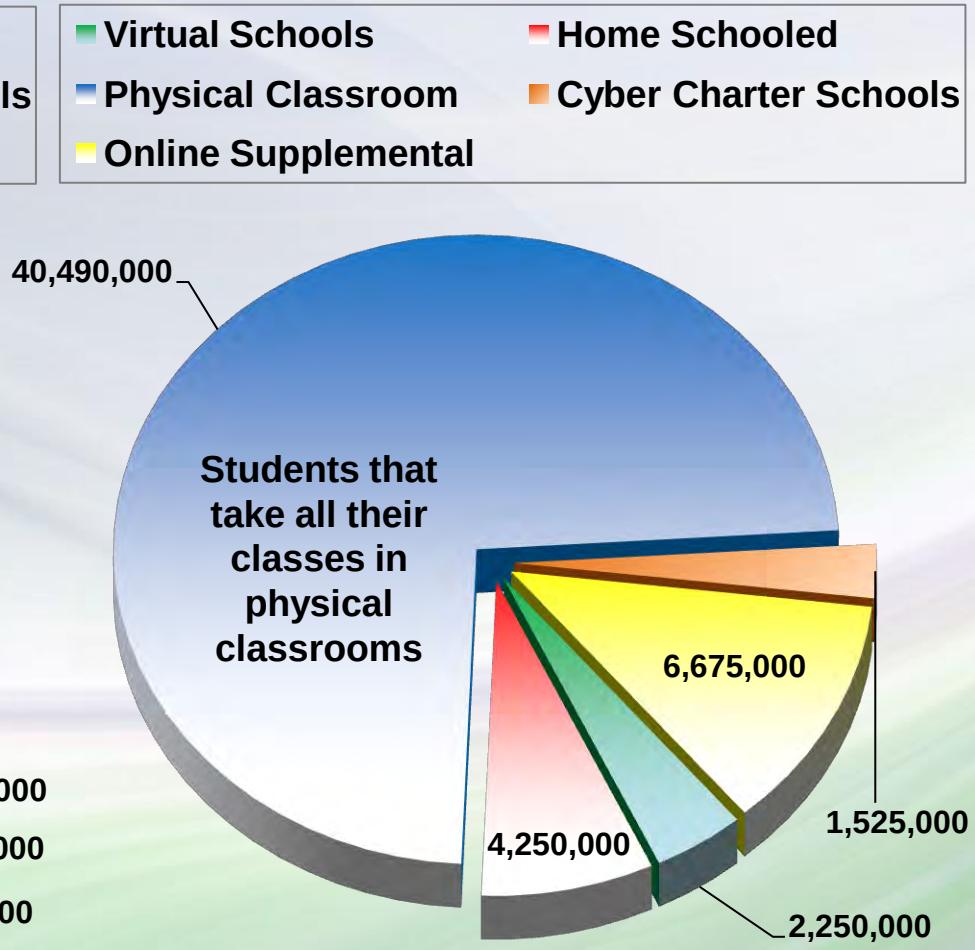


2009-2014 Growth Rate of Online PreK-12 Students: The Virtualization of the US School System

Total K-12 Students in 2009



Total K-12 Students in 2014

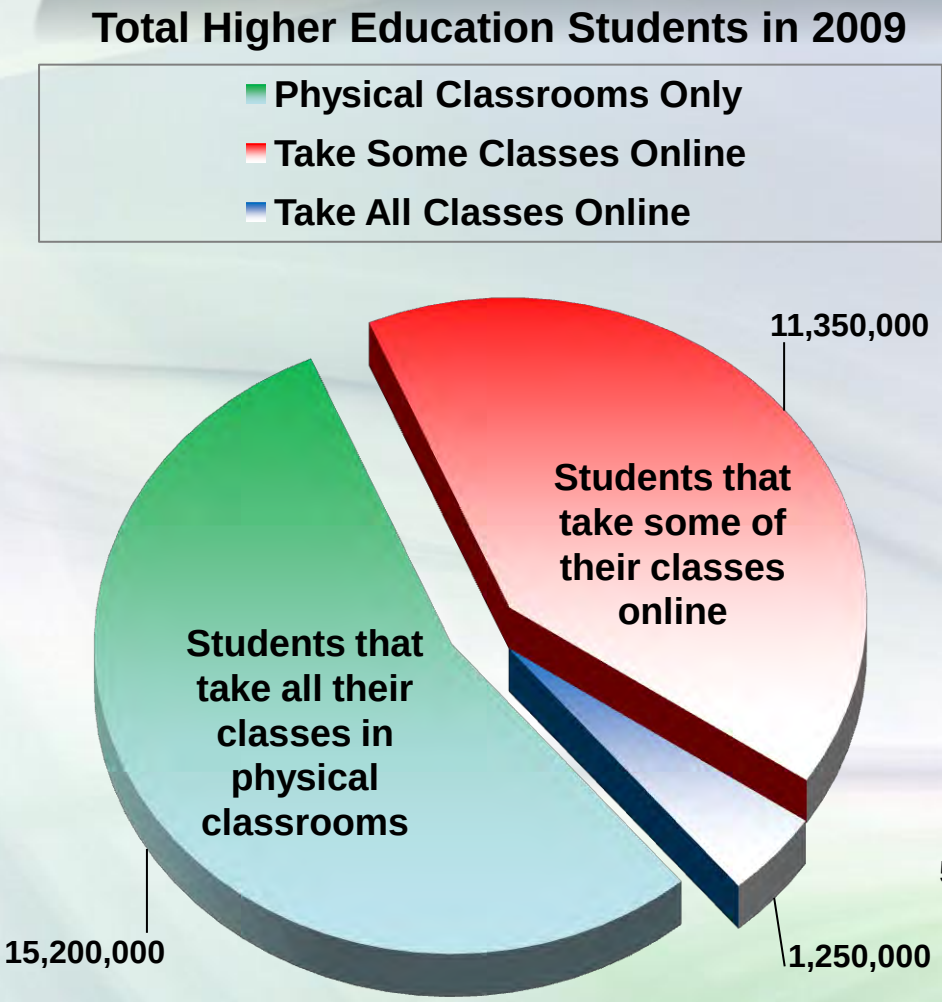


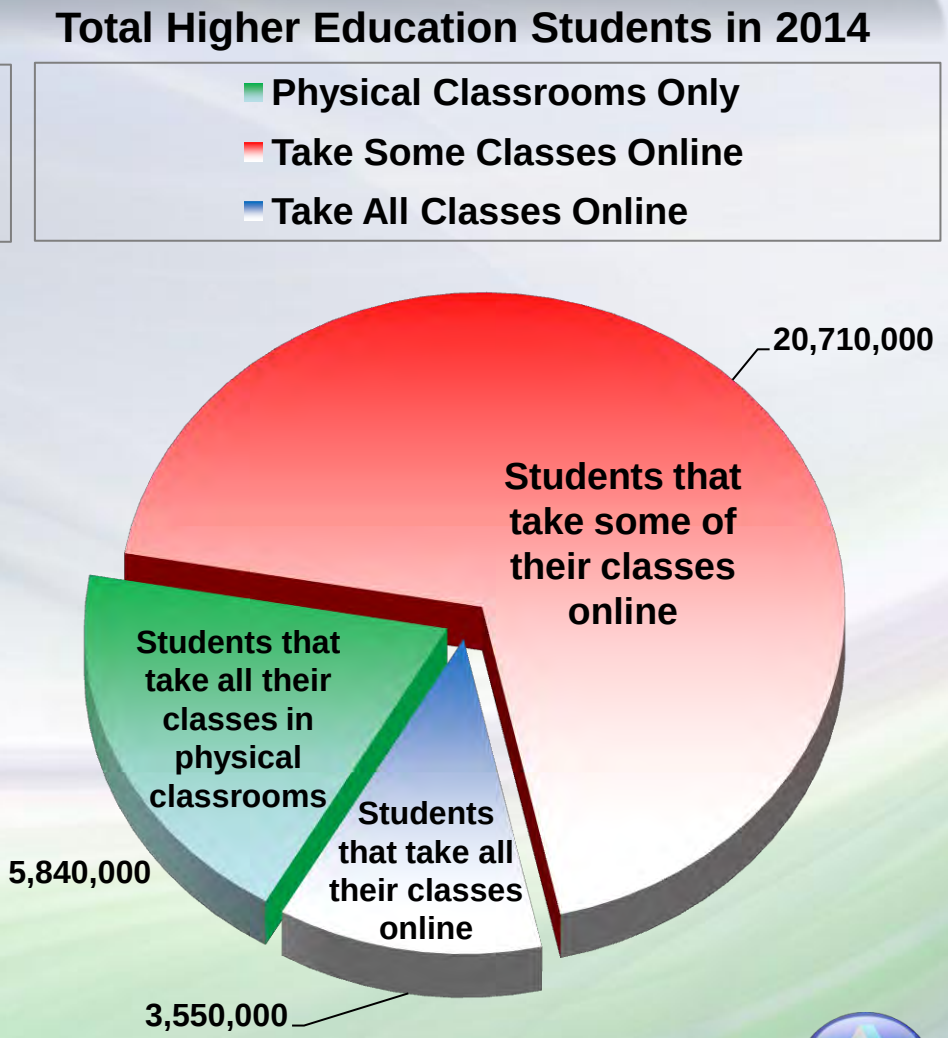
New eReaders and Tablets: Targeting Education

- **ScrollMotion** has deals to develop content for the iPad from Houghton Mifflin Harcourt, Kaplan Publishing, McGraw-Hill Education, and Pearson
- **enTourage eDGe** has deals with McGraw-Hill, Oxford University Press, F.A. Davis, Wiley, Encyclopedia Britannica, Wolters Kluwer, and Blackboard
- **Kno** – "Kno will be aimed directly at the education niche." – Agreements with Cengage Learning, McGraw-Hill, Pearson, and Wiley
- **Marvell Moby** - "Marvell will introduce the $99.00 Moby in pilot programs at participating at-risk schools." May 2010 – OLPC stops production of OLPC3 and goes with Marvell
- New multi-device software-based eReaders:
  - Blio from Kurzweil Educational Systems
  - Mobifusion's new MOBleReader– deals with: Pearson, Houghton Mifflin Harcourt, McGraw-Hill, Encyclopedia Britannica, and Dorling Kindersley



2009-2014 Growth of US Online Post-secondary Higher Education and Vocational Students





Local, State, and Federal Government



Nevada Commission on Tourism



National Parks of New York Harbor

- Handheld Decision Support for emergency medical technicians, first responders, and hazmat crews
- Language Learning
- Citizen Education – States hiring suppliers to create mobile drivers test prep ***apps***: Kentucky, Utah, and Oklahoma
- Tourist Education: Cities, States, National-State Parks targeting ***mobile Web sites***
- Libraries buying Mobile EduGames
- November 2009 - UK's Royal Navy started issuing Sony PSPs with educational software



RAE Systems HazRAE Decision Support – "decontamination procedures, working allowances, reactivity, Acute Exposure Guidelines (AEGLs), Military Exposure Guidelines (MEGs), and Levels of Concern (LOCs)."



Voxtec Phraselator – They sell an authoring tool to create language learning content

Corporations and Non-profits Slowly Adopting Mobile Learning

- **Businesses and Corporations**
  - Late adopters of Mobile Learning – major trend in itself
  - Second lowest buyer out of eight we track, yet, it has the highest growth rate and is the top buyer of services
  - Revenues concentrated in the field-based verticals - sophisticated handheld decision support dominated by vertical suppliers
  - BTW: Nintendo DS used in 3,700 Japanese McDonald's restaurants for employee training
- **Non-Profits and NGOs:**
  - Adoption beginning to take off with string demand emerging from Museums, Aquariums, Zoos, Galleries, etc.
  - Trade Associations (CE test prep)
  - Religious groups, political groups, and charities adopting Mobile Learning for public education, awareness, outreach, and marketing
  - Grey market suppliers dominate the charities



Q&A

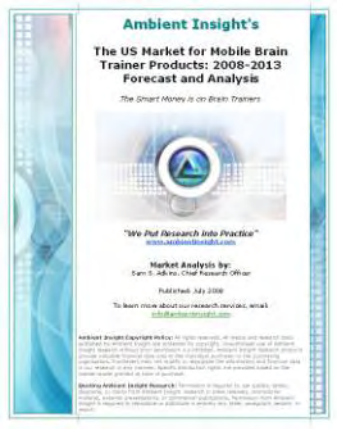


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Ambient Insight Research Sources

www.ambientinsight.com



- The US Healthcare Market for Mobile Learning Products and Services: 2009-2014 Forecast and Analysis
- The US Consumer Market for Brain Fitness Applications: 2009-2014 Forecast and Analysis
- The Worldwide Market for Self-paced eLearning Products and Services: 2009-2014 Forecast and Analysis
- The US Market for Self-paced eLearning Products and Services: 2009-2014 Forecast and Analysis
- Private Investment Trends in the US Learning Technology Industry: 1999-2008 Longitudinal Analysis
- Ambient Insight's 2010 Learning Technology Research Taxonomy