Testing in a Mobile World

Key Findings from Ambient Insight’s “The US Market for Mobile Learning Products and Services: 2009-2014 Forecast and Analysis”

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Ambient Insight

www.ambientinsight.com
Agenda

• Ambient Insight’s Learning Technology Taxonomy
• Overview of the US Mobile Learning Market
• Academic and Corporate Device-embedded Testing
• Academic and Consumer Exam Preparation
• Professional Licensure and Certification Exam Preparation
• Exam, Quiz, and Assessment Tools and Platforms
• Healthcare Continuing Medical Education (CME)
Introductions: Who We Are and What We Do

Ambient Insight is an integrity-based market research firm that uses predictive analytics to identify revenue opportunities for commercial suppliers, private investment firms, and government trade agencies.

- Ambient Insight is a market forecast firm founded in 2004 specializing in international learning technology product research. We provide:
  - Syndicated market and product forecast reports
  - Merger and acquisition (M&A) analysis
  - Competitive intelligence
- Clients include: Adobe, Amazon, Apple, Dell, Disney, Global Knowledge, Hasbro, IBM, Macmillan, Microsoft, NIIT, Proctor & Gamble, and SkillSoft
- Ambient Insight analyzes the competitive landscape and supply chain:
  - We are agnostic about claims or criticisms regarding product effectiveness
  - We do not evaluate, compare, or rank products
  - *We do not endorse companies or products*
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, tools, applications, and content 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.
ACADEMIC AND CORPORATE DEVICE-EMBEDDED TESTING
K-12 Device-embedded Learning: Quizzes used as the Primary Knowledge Transfer Method

- **Texas Instruments – TI Nspire Navigator**
  - “Instant Assessment”

- **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.”
“elnstruction's Classroom Performance System (CPS) allow students to respond to questions and enables you to instantly assess their comprehension of your lessons. EXAMVIEW ASSESSMENT SUITE - Over 60 leading publishers also create and distribute EXAMVIEW-formatted questions.”

“iRespond allows teachers to immediately identify and track each student's mastery of state standards or objectives. Teachers may modify lessons or assist individual students who need further help.”

Hyper Interactive Teaching Technology TX3200 – “The software records the responses and presents the results in the form of a histogram. Each remote has a unique ID number allowing the instructor to know how each student responded to every question.”

SMART Technologies: SMART Response PE interactive - “allows you to create tests and manage, track, and evaluate the results.”
Corporate Training: Audience Response Systems

**IML Question Wizard** - “...create question slides, deliver interactive presentations, compile instant results and assess feedback data without ever leaving PowerPoint. Automatically saves the data to PowerPoint and Access.

**Poll Everywhere** - “People vote by text messages (or Twitter) to options displayed on-screen. The results are embedded within the presentation in real time.”

**Meridia** - “The students are able to respond to test questions and have their responses evaluated in real time. Instructors can comment on the results and make changes to the content in real time.”

**Fleetwood’s Reply Ativa** - “First Full Color-Configurable Touch Screen Audience Response Keypad.” Device has audio and headphone so questions can be audio-based. No physical keyboard. Only the keys needed are displayed.
ACADEMIC AND CONSUMER EXAM PREPARATION
Mobile Academic Test Prep

- Nokia Mobileedu and ETS - TOEFL Exam Prep
- Wallsberg - ACT Exam Prep
- Upward Mobility - Biology
- SAT II - “Advanced Placement (AP), A-Levels, PRAXIS II, GED, CLEP, MCAT, and ASVAB exams.”

- Nintendo, The Princeton Review – MySAT Coach
Consumer Test Prep: Driver Tests

DMVPrep.com - DMV Test prep

MagicMundo - Official Driver Theory Test (Ireland)

UK Driving Standards Agency - Motorcycle Theory Test
Cognitive Learning: Mobile Brain Trainers
Cognitive Learning: Mobile Brain Trainers

Cognitive Learning products are designed to improve perception, working memory, comprehension, decision making, general problem solving, and reasoning. They are meta-cognition products that enable users to modify cognitive behavior (learn) by understanding and manipulating the learning process itself.

- Mobile cognitive assessment products are marketed to the aging population, not kids
- Brain training edugames are now the top selling mobile edugame type in the world
- Nintendo's "Brain Age 1" and “Brain Age 2” have sold over 32 million copies worldwide
- The products are in high demand in US, Japan, and Europe
- 2008 Dual N-Back study by Susanne Jaeggi, University of Michigan, documented more than 40% increase in fluid intelligence and working memory
PROFESSIONAL LICENSURE AND CERTIFICATION EXAM PREP
Certification and Licensure Exam Prep


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
BarMax – The most expensive application in the App Store. Exam prep for the California Bar Exam sells for $999.00.
## Professions in the US with Licensure Requirements

<table>
<thead>
<tr>
<th>Accounting</th>
<th>Clinical Laboratory Technicians</th>
<th>Foresters</th>
<th>Library and Information Services</th>
<th>Osteopaths</th>
<th>Public Health Administrators</th>
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<tbody>
<tr>
<td>Acupuncture</td>
<td>Construction (includes electricians &amp; plumbers)</td>
<td>Funeral Services</td>
<td>Marriage and Family Therapy</td>
<td>Paralegals</td>
<td>Rabbinical Education</td>
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<tr>
<td>Architecture</td>
<td>Cosmetology</td>
<td>Health Education Schools</td>
<td>Massage Therapy</td>
<td>Pesticide Operators</td>
<td>Radiologists</td>
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<tr>
<td>Asbestos Abatement</td>
<td>Counseling</td>
<td>Health Services Administrators</td>
<td>Medical Boards Medical Education</td>
<td>Pharmacists</td>
<td>Real Estate Brokers</td>
</tr>
<tr>
<td>Athlete Agents</td>
<td>Dentistry Professionals</td>
<td>Hearing Aid Dispensers</td>
<td>Midwives</td>
<td>Physical Therapists</td>
<td>Rehabilitation Professions</td>
</tr>
<tr>
<td>Athletic Trainers</td>
<td>Dieticians</td>
<td>Home Health Care Workers</td>
<td>Naturopathic Medicine</td>
<td>Physicians and Physicians’ Assistants</td>
<td>Respiratory Care Therapists</td>
</tr>
<tr>
<td>Attorneys</td>
<td>Emergency Medical Technicians</td>
<td>Interior Design</td>
<td>Nursing and Nursing Assistants</td>
<td>Podiatrists</td>
<td>Securities Professionals</td>
</tr>
<tr>
<td>Banking</td>
<td>Engineers</td>
<td>Insurance</td>
<td>Nursing Home Administrators</td>
<td>Private Investigators</td>
<td>Social Workers</td>
</tr>
<tr>
<td>Cemetery Brokers and Salespersons</td>
<td>Film Professionals</td>
<td>Landscape Architecture</td>
<td>Occupational Therapy</td>
<td>Psycho-analysts</td>
<td>Speech and Language Therapists</td>
</tr>
<tr>
<td>Chiropractic</td>
<td>Financial Advisors</td>
<td>Land Surveyors</td>
<td>Optometrists and Opticians</td>
<td>Psychologists</td>
<td>Teachers</td>
</tr>
</tbody>
</table>

- **Finance and Insurance Professions**
- **Healthcare Professions**
EXAM, QUIZ, AND ASSESSMENT TOOLS AND PLATFORMS
Shortlist of Tools and Platforms

- **First-to-Market Best-of-Breeds:**
  - Tribal CTAD's MyLearning (Europe)
  - Hot Lava Software's Mobile Learning Author (acquired by OutStart in 2009)
  - Chalk Media (acquired by RIM in 2009)

- **Legacy tools and platforms now support Mobile Learning output:**
  - Blackboard, Adobe's Captivate, SCATE Technologies' ignite, Trivantis' Lectora, Brainvisa's RapidL-i, Saba's Publisher, and SumTotal's ToolBook

- **Aspyr Media's iQuiz Maker tool:**
  - Apple used it to create their trivia “iQuiz” games
  - Kaplan used it to create their SAT Test prep applications
  - McGraw-Hill Higher Education uses the tool to create college-level content
Tools and Platforms: New to Market

- **New Authoring Tools on the Market:**
  - SimpleLeap Software’s Cram for the BlackBerry
  - MediaClick’s PodQuiz-hyperMix Maker
  - Pocket Mobility’s Quizzler Maker
  - Bizon Software’s Pocket Exam Builder
  - gWhiz’s gFlash

- **New Mobile Learning Platforms (launched in January 2010):**
  - Emantras’ Mobl21
  - Inkling - “the world’s first end-to-end platform for mobile learning.”

- **Native Mobile Learning Exam Platforms:**
  - Acquasys Informática’s Examiner
  - eInstruction’s EXAMVIEW ASSESSMENT SUITE

- **The most sophisticated reporting features are in mobile marketing survey and polling tools**
The Rise of “mHealth”: Suppliers Integrating Mobile Learning and CME with Clinical Mobile Applications

**Patient Care**
- Electronic Prescriptions
- Drug Interaction Checks
- Doctor Signature Capture
- RFID Inventory Tracking
- RFID Dosage Management
- Lab Work Request
- Lab Work and Test Results

**ePrescribing and Lab Work**
- Patient Consultation
- Clinical Consultation
- Disease Management
- Patient Referrals
- Recording & Transcription
- Patient Records

**Billing**
- Patient Simulators
- Journals and News
- Clinical Decision Support
- Medical & Drug Reference
- Patient Education
- Mobile CME

**Continuing Medical Education**
- Insurance Administration
- Practice Management
- Reception and Admitting
- Charge Capture
- Billing System
- Scheduling
- Case Management
Mobile Continuing Medical Education (CME) Suppliers

- ePocrates, Skyscape, First Consult, PEPID, Medical Wizards Corporation, ReachMD, GenerationOne, Modality, Unbound Medicine, Lexi-Comp, Merck Medicus, and PatientKeeper
2009-2014 US Learning Methods in Healthcare Continuing Medical Education Meetings and Events

Healthcare Trend: Web-based CME and Mobile CME Rapidly Overtaking Physical Events and Meetings

- Physical CME Meetings
- Web-based CME
- Mobile CME
- Other CME Methods

% Percent

2009
2014
Q&A

Email: sam@ambientinsight.com
Ambient Insight Research Sources

www.ambientinsight.com

- The US Market for Mobile Learning Products and Services: 2009-2014 Forecast and Analysis
- The US Market for Mobile Brain Trainer Products: 2008-2013 Forecast and Analysis
- The US Market for Handheld and Mobile Game-based Learning Products: 2007-2012 Forecast and Analysis