## E-Learning Environment: Current Trends in Higher Education

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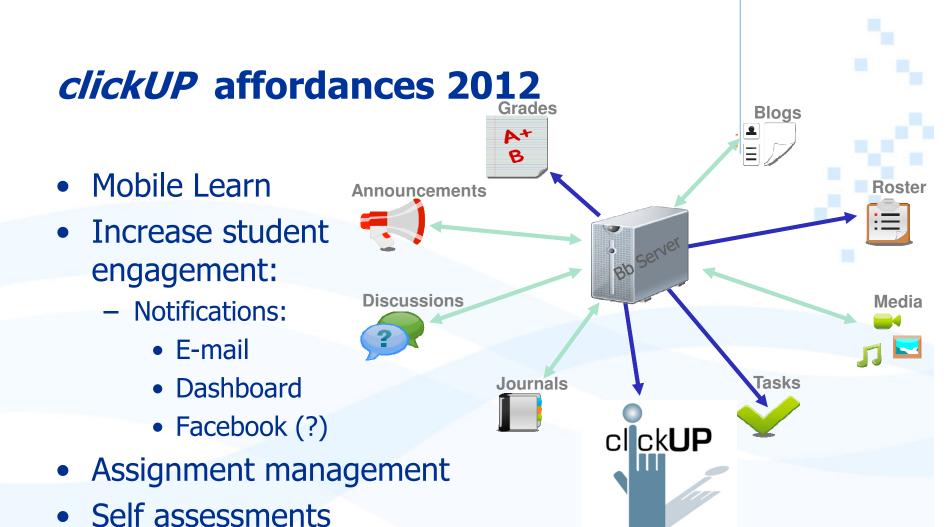
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**Library Seminar** 



# Flexible, blended model





- Turnitin & Grammarly: Support students' writing skills
- Podcasts to provide an overview of content or give



#### The future is mobile

Blackboard application for iPhone, Blackberry and Mobile Web









#### **Devices**

- Computers (laptops or PCs)
- Mobile phones (UP research: 100% ownership, one third smart phones, about another third internet enabled)
- Readers
- Tablets
  - Research at Reed College Portland with Kindle and ipad with the latter outperforming as a reader and study aid – navigation, note-taking, highlighting, annotation, but still serious limitations for study purposes relating to applications, finding files quickly, handling and annotating pdf files, notetaking



 3D Flat-Panel TVs and Displays expectations 4G Standard Wireless Power · Activity Streams Media Tablet \*Q Cloud Computing Augmented Reality O Cloud/Web Platforms Private Cloud Computing Internet TV Speech-to-Speech Translation 3D Printing -O Gesture Recognition Social Analytics -▲Mesh Networks: Sensor Mobile Robots -Pen-Centric Tablet PCs Microblogging Video Search -Electronic Paper-Autonomous Vehicles -Speech Recognition Location-Aware Applications E-Book Readers Extreme Transaction Processing - Video Telepresence L Predictive Analytics Tangible User Interfaces -Interactive TV Internet Micropayment Systems Terahertz Waves -Biometric Authentication Methods Computer-Brain Interface Broadband Over Power Lines-Mobile Application Stores Context Delivery Architecture Virtual Assistants -- Idea Management Human Augmentation 🛆 Consumer-Generated Media Public Virtual Worlds As of August 2010 Peak of Trough of Plateau of Technology Slope of Enlightenment Inflated Disillusionment Productivity Trigger Expectations time Years to mainstream adoption: obsolete △ more than 10 years ⊗ before plateau O less than 2 years O 2 to 5 years 5 to 10 years Source: Gartner (August 2010)

Figure 1. Hype Cycle for Emerging Technologies, 2010

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Gartner

expectations Social-Data Portability -- Web-Based Office Productivity Suites Media Tablet -Lecture Capture and Retrieval Tools Cloud HPC/CaaS Mobile-Learning Smartphone Social Learning Platform - Open-Source Financials Mobile-Learning Low-Range/ AEA Frameworks Midrange Handsets Grid Computing User-Centric IAM tric Table PCs Open-Source Middleware Suites-🐧 E-Textbook CobiT Cloud E-Mail. Unified Communications Open-Source E-Learning Digital Preservation of and Collaboration Applications ] Research Data Blog\$ Microblogging Q ∠ Web and Application Hosting Virtual Environm Federated Identity Management Hosted Virtual o Virtual Worlds Podcasting Learning Content Desktops CRM for Enrollment Management Global Library Open-Source SIS └ Organization ic IAM Digitization Projects -SOA E-Learning BPO △ Wikis Open Repositories Portals SIS International Data Mashups E-Port of Interoperability Standards Hosted PC Virtualization Social Media Affective Computing -Software Game Consoles às Media Hubs Emergency/Mass Notification Software -Quantum Computing IT Infrastructure Utility Intellectual Property Rights and Royalties Management Software └ SaaS Administration Applications └── 802.11n As of July 2010 ITIL Peak of Plateau of Technology Trough of Inflated Slope of Enlightenment Disillusionment Productivity Trigger Expectations time Years to mainstream adoption: obsolete △ more than 10 years • 5 to 10 years ⊗ before plateau Source: Gartner (July 2010) Page 7 of 79 Publication Date: 26 July 2010/ID Number: G00201003 Gartner © 2010 Gartner, Inc. and/or its Affiliates. All Rights Reserved.

Figure 1. Hype Cycle for Education, 2010

#### E-books

 We need compatible formats not restricted to one device or app: 'Ultimately, what consumers need is ebooks that they can buy and read anywhere, using any software they choose on any device they have at hand, whether it be a phone, a tablet, a laptop, or a PC. .... This issue is critical to library management and to the future success of e-books' (Perenson 2010 'The pitfalls of e-book buying'). She continues: 'consumers need to be able to view the contents of their purchased libraries in a unified fashion. The more books we collect, the greater will be our need to be able to organize our collection'.



## **Tony Bates on Trends for 2011**

- 1. Course redesign (blend online and F2F)
  - 1. Stretching the LMS (with 2.0, PLEs)
  - 2. Learner-generated content (audio and video)
  - 3. New models in instructional design
- 2. The future is mobile
  - 1. Tablets
  - 2. Mobile phones
- 3. Open educational resources
- 4. More multimedia (videos, animations, simulations, games)
- 5. Learning analytics
- 6. Shared services



#### **OERs**

- Creative Commons Licence
- Benefits
  - Collaboration
  - Shared resources
  - Reduced costs for high quality products
  - Marketing your institution (teaching and research)
- Resistance
  - Quality
  - If I did not design and develop it, it won't serve my purposes
  - Cost of re-purposing where allowed
  - Intellectual property



## **Horizon Report: 2011 - Trends**

- The abundance of resources and relationships made easily accessible via the internet is increasingly challenging us to revisit our roles as educators in sense-making, coaching and credentialing.
- People expect to be able to work, learn, and study whenever and whatever they want.
- The world is increasingly collaborative, giving rise to reflection about the way student projects are structured.
- The technologies we use are increasingly cloud-based, and our notions of IT support are decentralized.



## **Horizon Report: 2011 - Challenges**

- Digital media literacy continues its rise in importance as a key skill in every discipline and profession.
- Appropriate metrics of evaluation lag behind the emergence of new scholarly forms of authoring, publishing and researching.
- Economic pressures and new models of education are presenting unprecedented competition to traditional models of the university.
- Keeping pace with the rapid proliferation of information, software tools and devices is challenging students and teachers alike.



# Horizon Report: 2011 – Technologies to watch

- Near-term horizon (next year)
  - Electronic books
  - Mobiles
- Second adoption horizon (2-3 years)
  - Augmented reality
  - Game-based learning
- Far-term horizon (4-5 years)
  - Gesture-based computing
  - Learning analytics

