ICT in HE–
It's a jungle out there

March 2012
Sandton

Contribute to the discussion plse

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Agenda

- A few Hype cycles from Gartner
- Some predictions from Horizon reports
- Our realities (that are creating challenges) in Higher Education

# Lecturing environment? – lecture-centred approach – change to a learning-centric environment by adding technology

Good Teaching principles

- Contact between lecturer and students
- Cooperation between students
- Encouragement of active learning
- Giving rich and rapid feedback
- Emphasizes time on task
- Communicating high expectations
- Respect diverse talents and ways of learning

(Chickering and Gamson)

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What is Good Learning?

▸ **Move to a learner-centric approach**
▸ **Constructivism – these factors of good learning is taken into account:**
  ◦ personal background
  ◦ interpretations and perspectives
  ◦ social collaboration and negotiation
  ◦ larger cultural and social perspectives
  ◦ authenticity and context of knowledge

(Sami Paavola & Minna Lakkala)
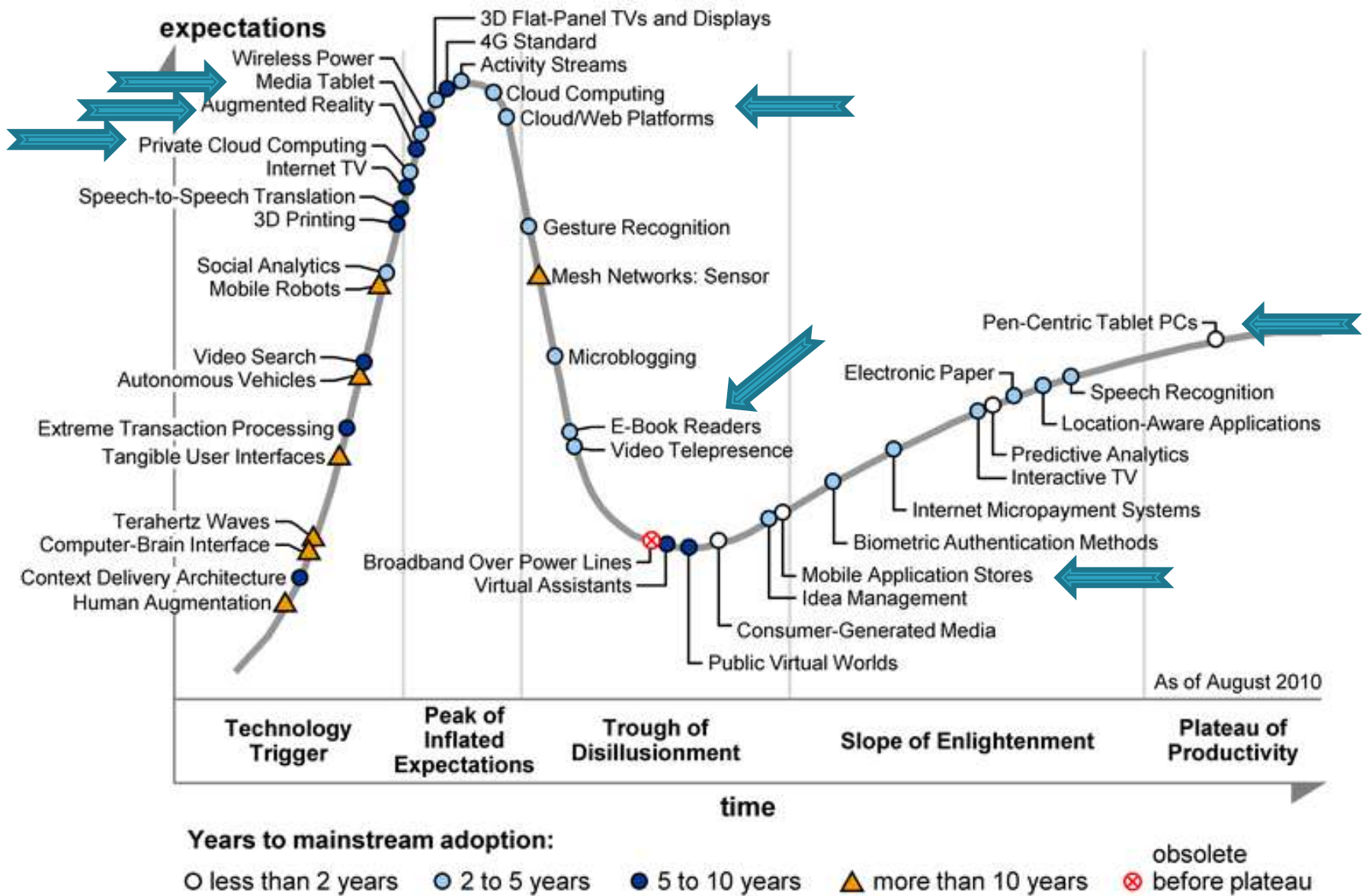
Gartner- Hype cycle for Technology
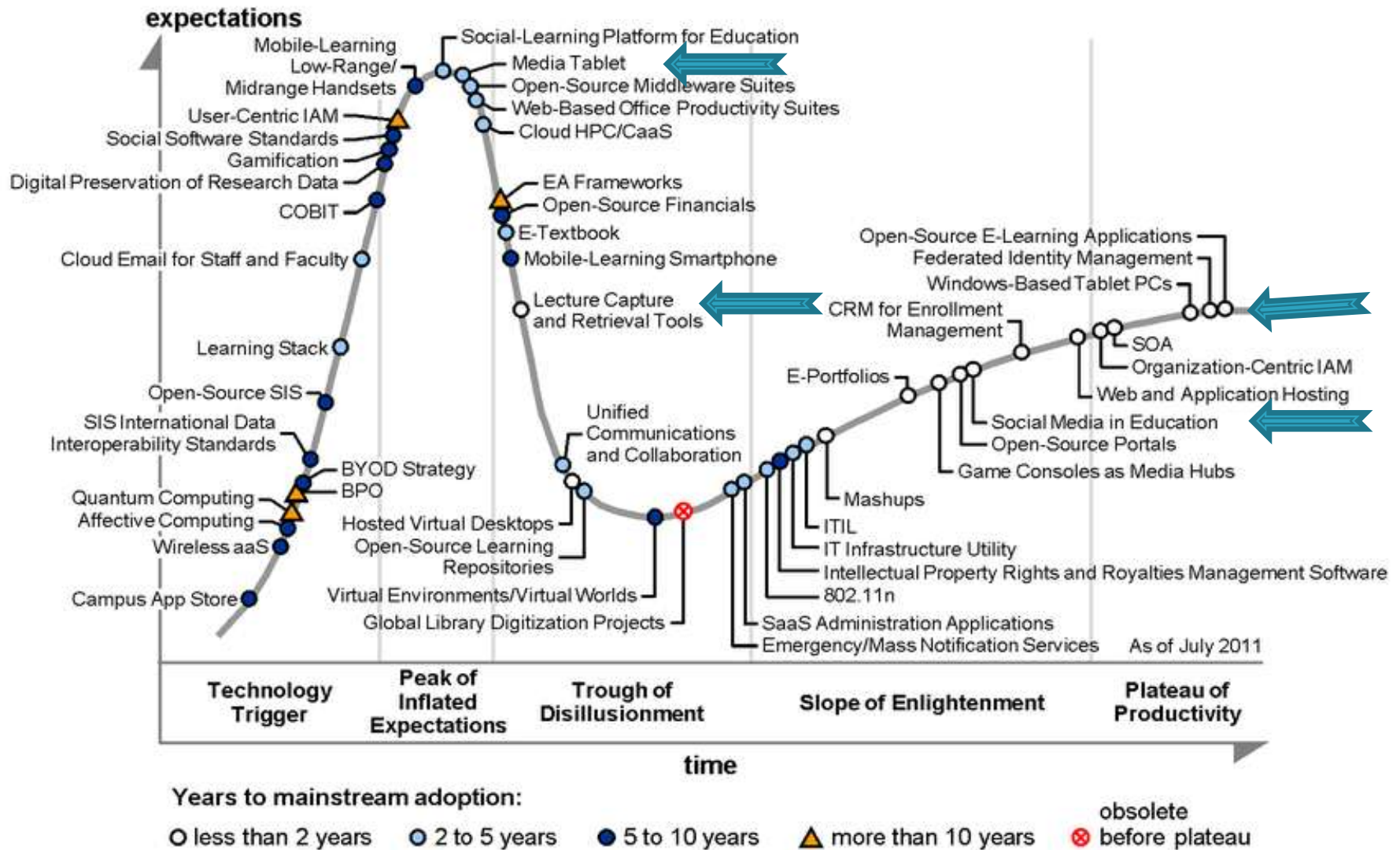
Gartner - Hype Cycle for Education

benefit

years to mainstream adoption

benefit	less than 2 years	2 to 5 years	5 to 10 years	more than 10 years
transformational		"Big Data" and Extreme Information Processing and Management; Cloud Computing; In-Memory Database Management Systems; Media Tablet	3D Printing; Context-Enriched Services; Internet of Things; Internet TV; Machine-to-Machine Communication Services; Natural Language Question Answering	3D Bioprinting; Human Augmentation; Mobile Robots; Quantum Computing
high	E-Book Readers; Hosted Virtual Desktops; Location-Aware Applications; Mobile Application Stores; Predictive Analytics	Cloud/Web Platforms; Private Cloud Computing; QR/Color Code; Social Analytics; Wireless Power	Augmented Reality; Consumerization; Social TV; Virtual Assistants	Mesh Networks: Sensor
moderate		Activity Streams; Biometric Authentication Methods; Gesture Recognition; Group Buying; Idea Management; Speech Recognition	Gamification; Image Recognition; NFC Payment; Speech-to-Speech Translation; Virtual Worlds	Computer-Brain Interface
low			Video Analytics for Customer Service	

As of July 2011

Priority Matrix for Emerging Technologies

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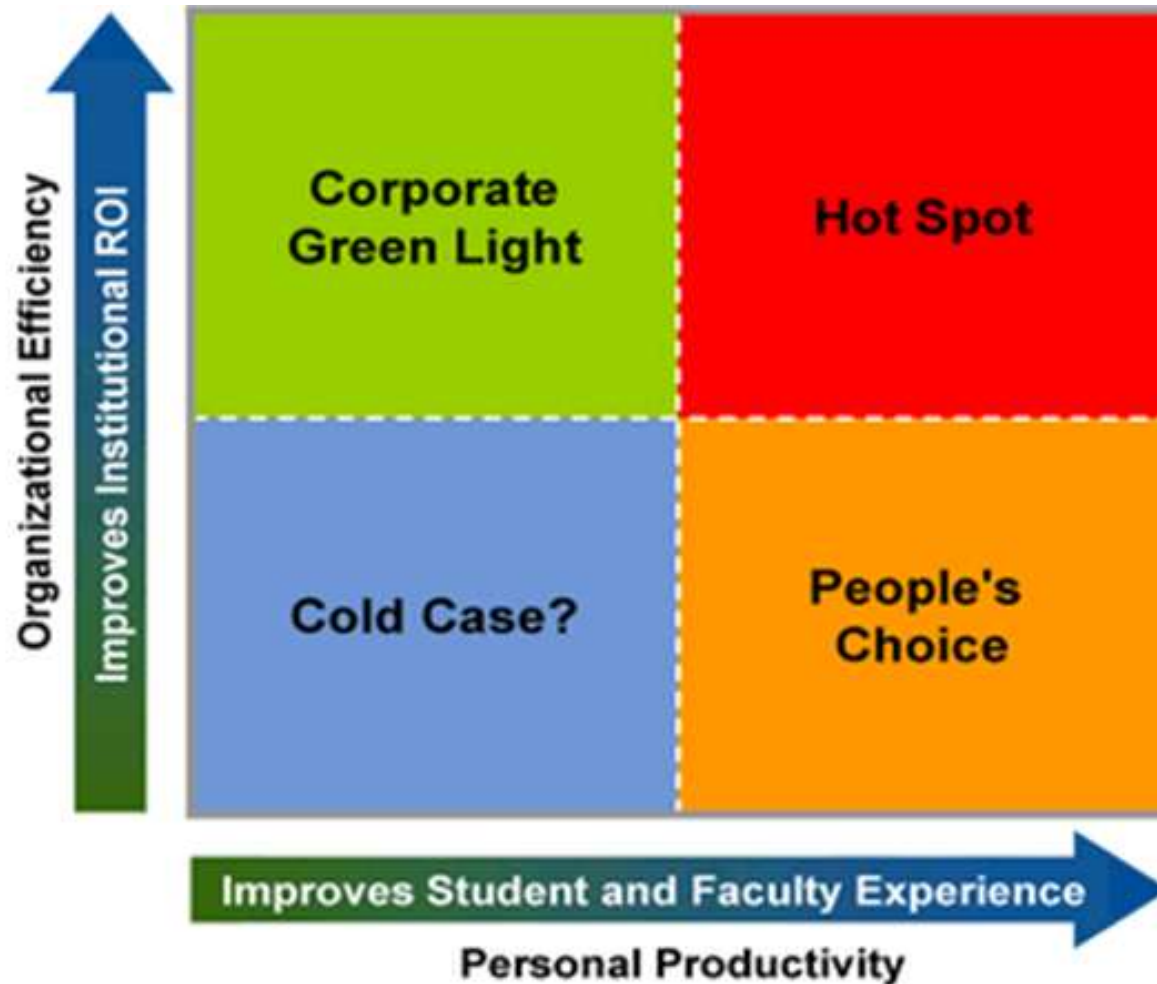
Gartner's Priority Matrix legend for Education
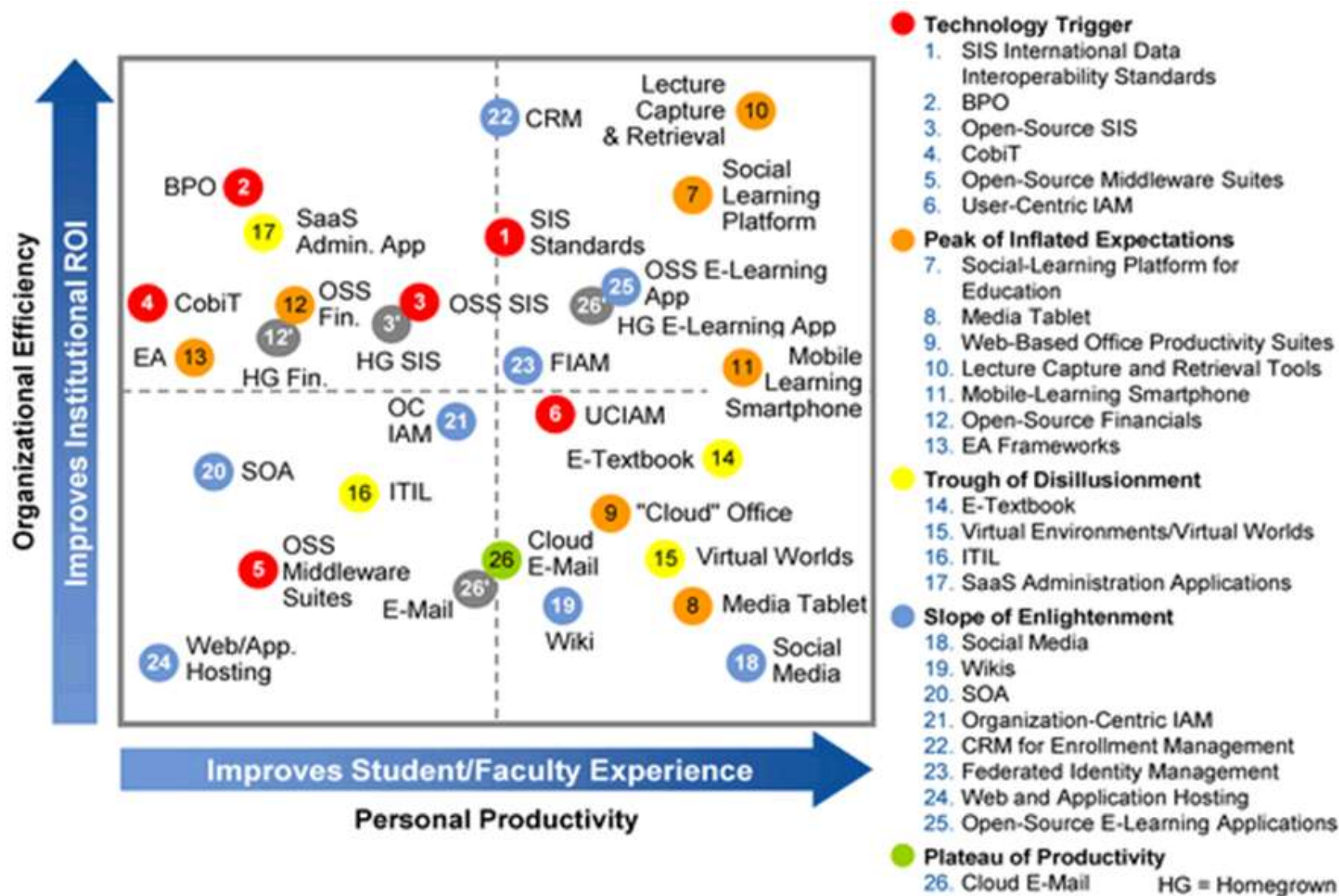
Priority Matrix for Education

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2012 Horizon report

- **1 year or less**
  - Cloud Computing (especially storage)
  - Mobile Applications
  - Social Reading (OCW for HE)
  - Tablet Computing
- **2 to 3 years**
  - Adaptive Learning Environments
  - (*Augmented Reality*)
  - Learning analytics
  - Digital Identity

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Definition of Insanity

To keep on doing the same things and expecting to see change...

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Resistance to change

In a time of change, it is the learners who inherit the future. The learned finds themselves equipped, in a world that no longer exists

…. Eric Hoffer

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Parental guidance required for educators?

▸ Why try and "manage" educational technologies? Because they:
  ◦ Flirt with technology
  ◦ Have a fear to commit
  ◦ Is not interested in commitment

Institutional 'Parental' control

- Cloud means big bucks – they love your money!
  - Google
  - Microsoft Skydrive
  - Facebook
  - Sugarsync, Box, Dropbox and others
  - Vendors (some offering freebies)
- Protect the digital identity of students
- Secure environment required for credits acquired

Emerging trends

- Yesterdays emerging technologies are already incorporated into the modern LMS
- Social media integration possible
- Early reporting systems built into LMS
- Allows for adaptive learning environments
- Single digital Identity to link to cloud services – email and storage

Thank you