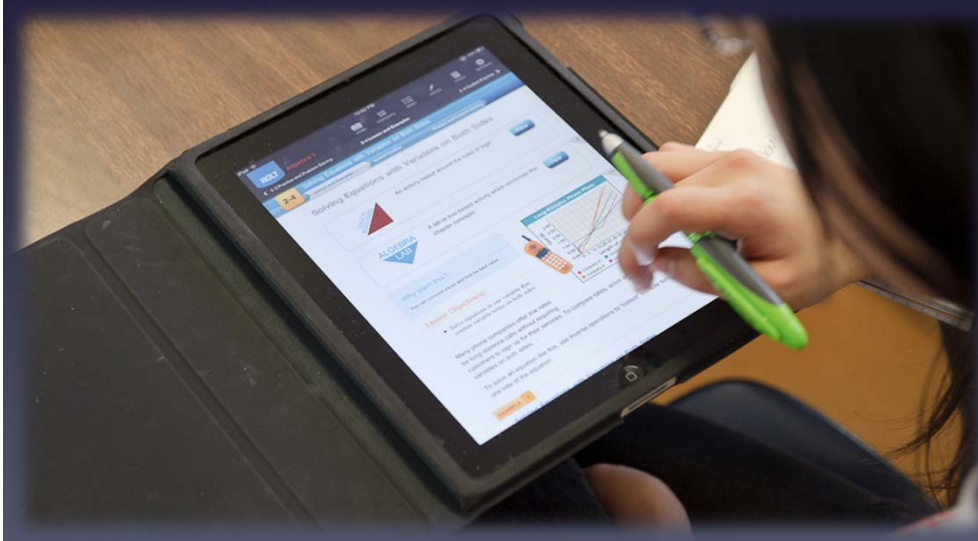


# Exploring the Educational Affordances of the Current Mobile Technologies: Case Studies in University Teachers' and Students' Perspectives



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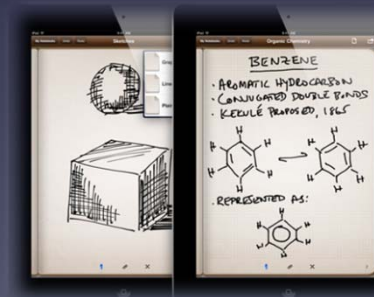
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# The iPad as a Pedagogical Tool

- The proliferation and growing popularity of iPads and iPad-like tablets
- A potential "transformative technology" that create flexible, collaborative, and inquiry-oriented learning environment
- Appropriate model for the use of iPads in teaching and learning must be developed



# Case Study 1 - Teachers' Perspective: Research Questions

- How higher education teachers adopt iPads in their teaching practice?
- How their perceptions change through the process?



# Participants

9 participants were selected from a range of different disciplines at HKU.

- Department of Mechanical Engineering
- Department of Civil Engineering
- Department of Electrical and Electronic Engineering
- Faculty of Education
- Faculty of Dentistry
- School of Chinese
- School of Public Health
- Faculty of Law
- School of Biological Science



# Teachers' Private Theories (Churchill, 2005)

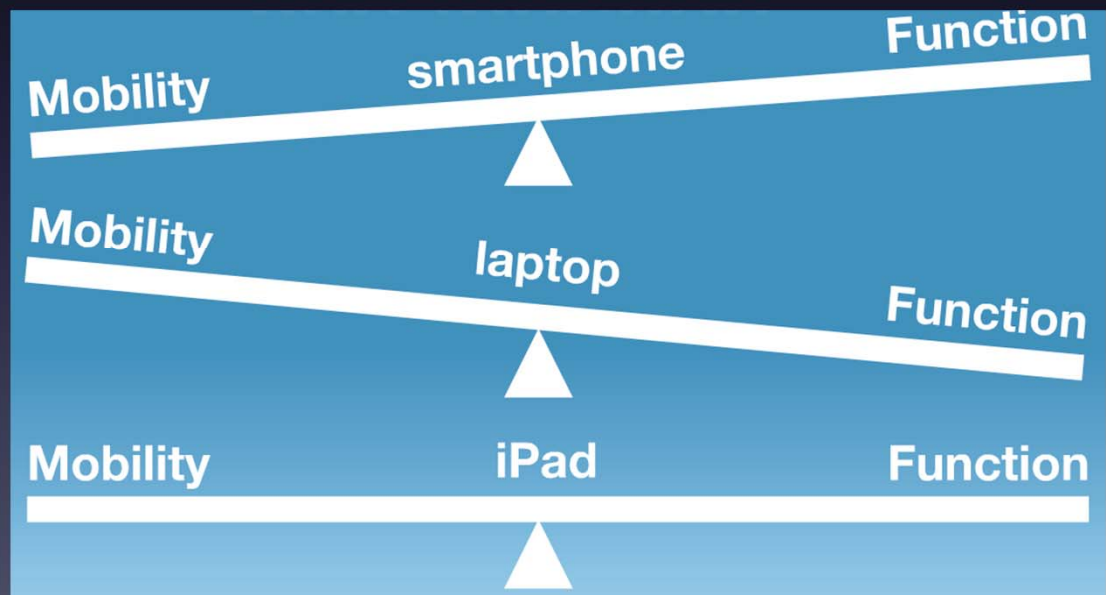
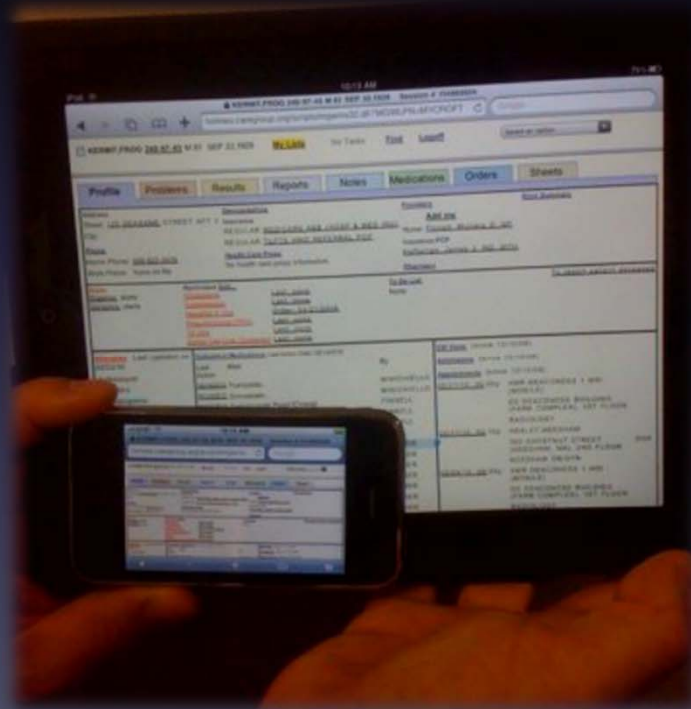
- Teachers' use of technology is guided by a set of private theories
- 6 areas of teachers' private theories were identified that impact instructional decision making and technology integration: learning, students, teacher's role, technology, planning and design, and educational changes
- These 6 areas of private theories serve as an analytical framework for understanding the participating teachers' uses of iPads

# Piloting Study: Apps Downloaded/Used (Churchill, Fox, and King, 2012)

- Productivity Tools: word-processing, document annotation, creating of multimedia material tools
- Teaching Tools: support classroom teaching, such as those that support connection to a projector, mark-book, presentation tools and classroom management tools
- Notes Tools: enable note taking in combination with audio recording, drawing and typing
- Communication Tools: support communication and social networking
- Drives: allow connectivity to the Cloud, network drives and a computer
- Blogging: allow convenient blogging via the iPad
- Content Accessing Tools: e-books, multimedia material and video accessing tools, etc.

# The Ongoing Study: Teachers' Perceptions and Changes

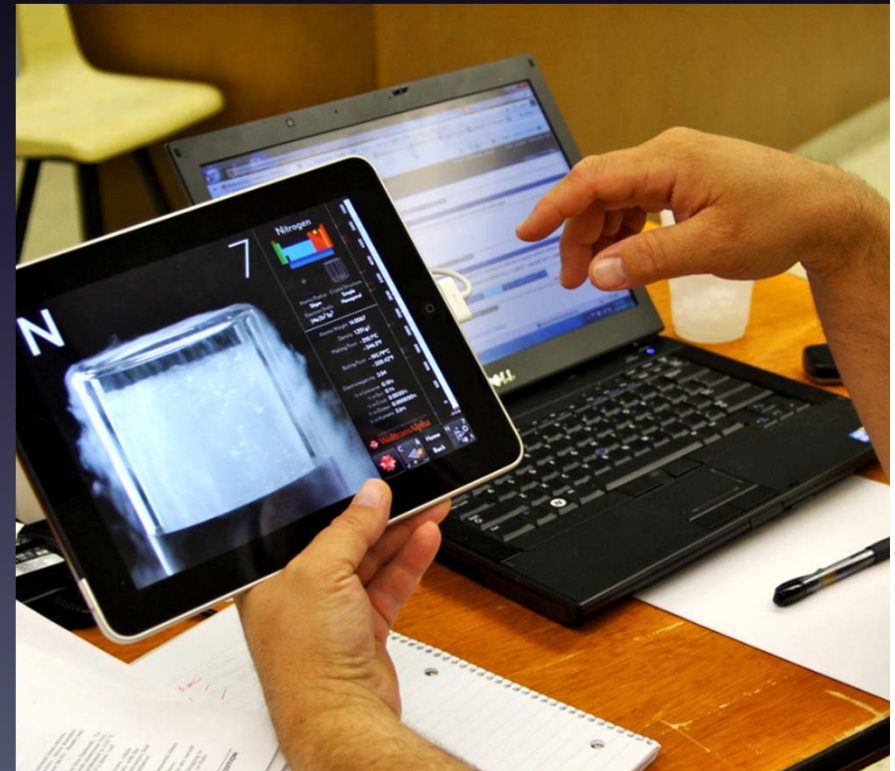
- Size does matter!





# The Ongoing Study: Teachers' Perceptions and Changes

- Mobile Ergonomics
- Instant On
- Battery Life
- Easy to Use
- Tactile
- Apps
- Access to Resources
- Sharing and Interaction to Support a more Student-Centred Teaching Paradigm





# The Ongoing Study: Teachers' Perceptions and Changes

Issues that discourage teachers to adopt iPads for teaching:

- Document Format Compatibility
- Connecting to Classroom Projector
- File Management, Syncing
- Inputting Text on Touch Screen
- Students' Ownership of Tablets (iPads/Android-based tablets)
- "Technology Dance"?

# Further Work

- Explore perception change through adopting iPads
- Theoretical understanding such a change
- Recommendations that support teachers to effectively adopt iPads in their future teaching practices

## Case Study 2: students' perception and adoption of mobile technologies for learning

- Research questions 1: How do students perceive mobile technologies as learning tools?
- Research question 2: How do students apply their mobile devices in a postgraduate course?

# Participants

- Nine students enrolled in a postgraduate course “Learning objects” in a university in Hong Kong

# Pedagogical design and learning environment

- Online Learning Platform- Edmodo (Mobile and Web versions)
- Group Project and Learning Portfolios

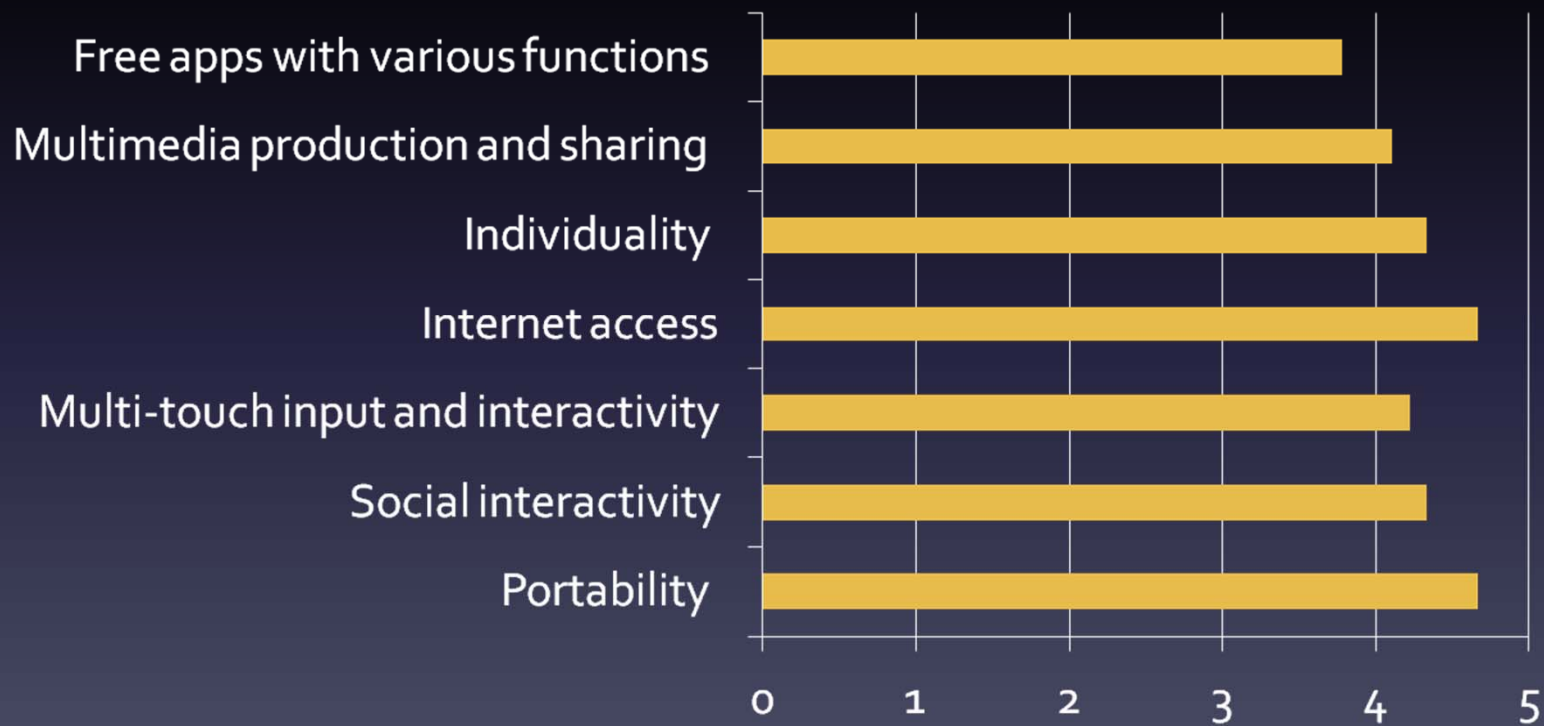
# Results

- Student common usage of mobile technologies in daily lives
  - Communication and social networking
  - Scheduling daily activities
  - Locating places using mapping and navigation apps
  - Searching information and resources on the Internet
  - Accessing online content (e.g. e-books)
  - Producing multimedia, such as video recording and photo taking



# Results

- Students' perceived usefulness of mobile technologies as learning tools



# Results

- How students used their mobile devices to support their learning in the course?
  - Tracking what was going on in online learning environment
  - Keeping contact with other group members
  - Reviewing learning materials uploaded by the teacher anywhere and anytime

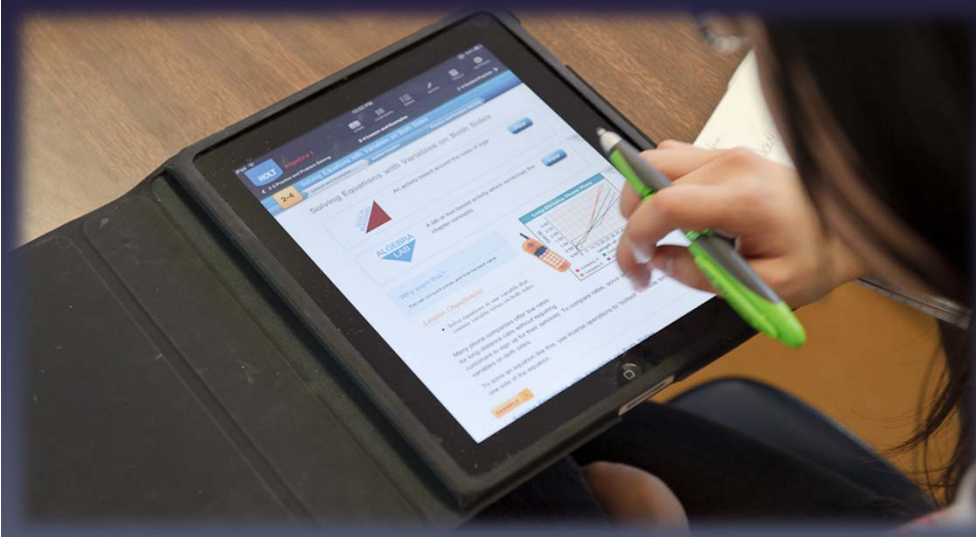
# Results

- Students' perceived challenging aspects of learning with mobile technologies
  - Limited WIFI coverage
  - Inconvenient input method
  - Lack of learning materials tailored for Smartphone/Tablet PC

# What we have learned from these two case studies

- Do teachers really know students' expectation about how the mobile technologies can be used in learning?
- What are factors causing the disjoint usage between daily life and learning contexts?
- What kinds of supports the teacher needs in order to maximize the educational affordances of the mobile learning technologies?

Thank you



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