

Why m-Learning is Important!

Irwin King

king@cse.cuhk.edu.hk

<http://www.cse.cuhk.edu.hk/~king>

Department of Computer Science & Engineering
The Chinese University of Hong Kong



Social Networking

HOW TO USE WEB 2.0 IN THE ENTERPRISE



*PART 1:
COMMUNICATE WITH YOUR EMPLOYEES*



What's On the Menu?

- The m-Learning Paradigm
- Why iPhone is a key piece in the puzzle
- Activities @ CUHK

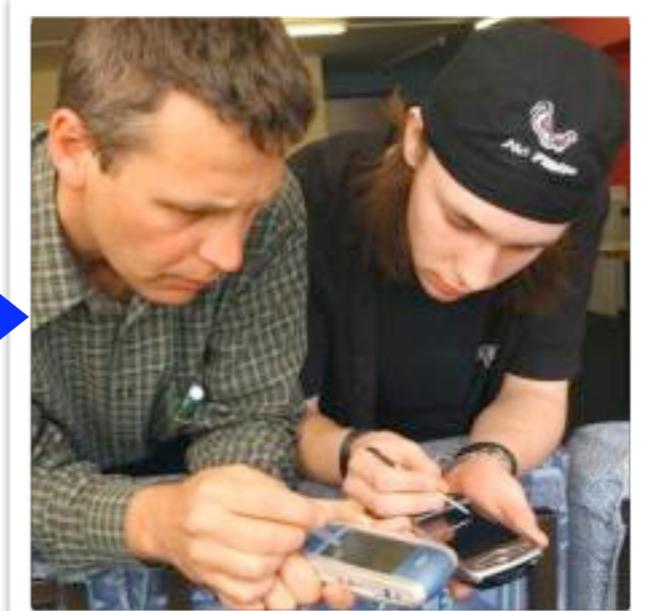
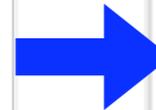
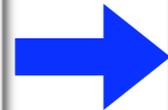


Web 2.0

- Web as a medium vs. **Web as a platform**
- Read-Only Web vs. **Read-and-Write Web**
- Static vs. **Dynamic**
- Restrictive vs. **Freedom & Empowerment**
- Technology-centric vs. **User-centric**
- Limited vs. **Rich User Experience**
- Individualistic vs. **Group/Collective Behavior**
- Consumer vs. **Producer**
- Transactional vs. **Relational**
- Top-down vs. **Bottom-up**
- People-to-Machine vs. **People-to-People**
- Search & browse vs. **Publish & Subscribe**
- Closed application vs. **Service-oriented Services**
- Functionality vs. **Utility**
- Data vs. **Value**



Evolution of Learning and Training



distance learning
d-Learning



electronic learning
e-Learning



mobile learning
m-Learning



What is m-Learning?

New Learning Paradigms		Mobile Technologies
Individual/Learner centered		Personalized Services
Collaborative learning		Networked/Wireless
Situated learning		Mobile awareness
Contextual learning		Context awareness
Ubiquitous learning		Ubiquitous
Life long		Durable



What is m-Learning?

- Refers to the use of **mobile** and **handheld** devices in teaching and learning
- Mobile implies movement and **mobility**--to learn “**on the go**”



Why m-Learning?

- Enhance learner's success
 - **Real** world skills
 - Access learning materials from **anywhere** and **anytime**
 - **Just-in-time** learning--reference tool for quick access to data in the field
 - **Interact** with others
 - **Collaborate** learning



m-Learning Devices

- PDAs
- Tablet PCs
- Mobile phones
- Wearable computers
- Laptop computers
- E-book readers
- Hybrid devices

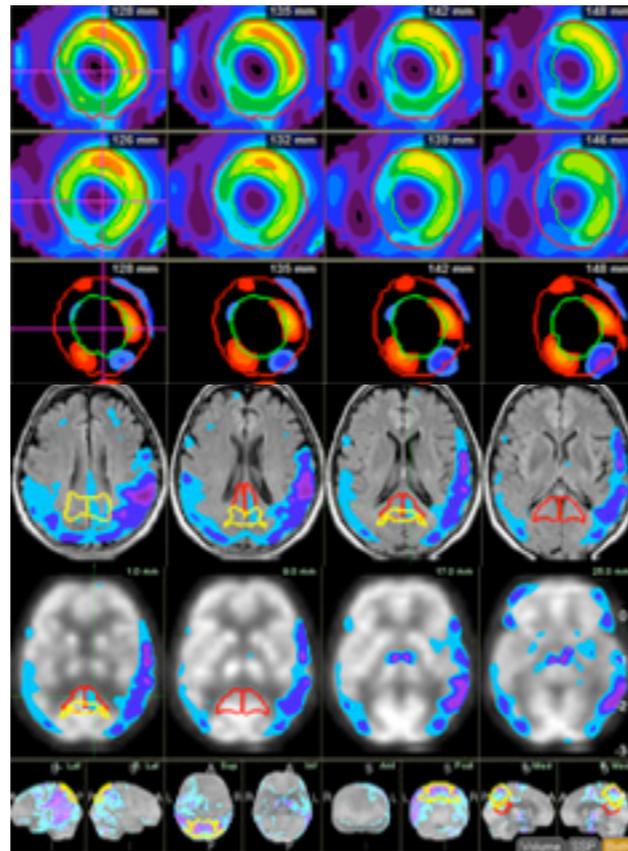


Limitation of m-Learning Devices

- Small screen size and limited storage capabilities
- Batteries require regular charging
- Lack of common platform
- More easily lost or stolen
- Much less robust than desktops
- Get outdated very quickly
- Security and privacy issues
- Limited bandwidth problems
- Difficulties to upgrade



iPhone in Medicine



Multi-planar
reconstruction data sets



Images



online version

Medical resources developed for the iPhone can be used by students and practitioners

<http://jeffreyleow.wordpress.com/2008/06/10/iphone-in-medical-education/>

Hong Kong Mobility in Education Workshop, Irwin King, Hong Kong, April 30, 2009



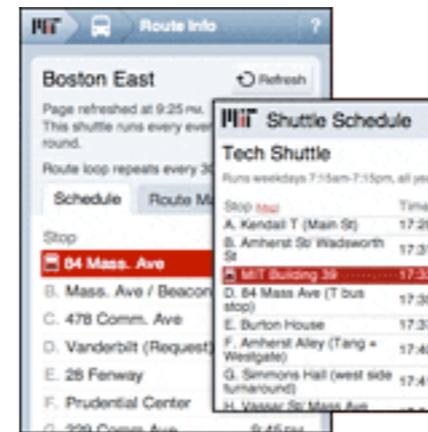
MIT Mobile Project



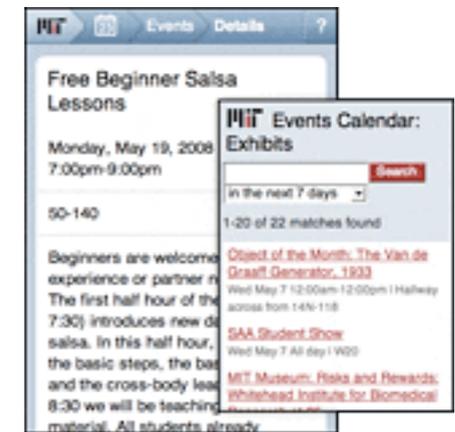
People Directory



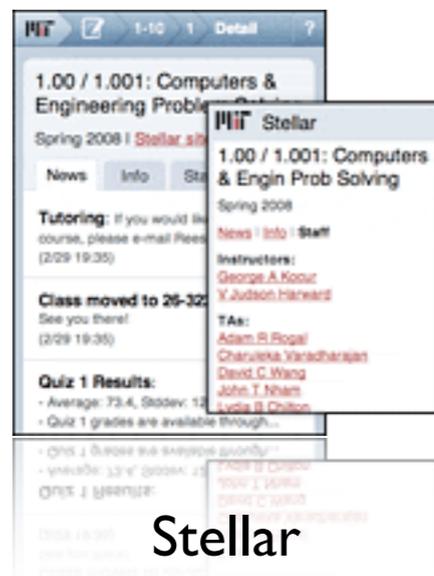
Campus Map



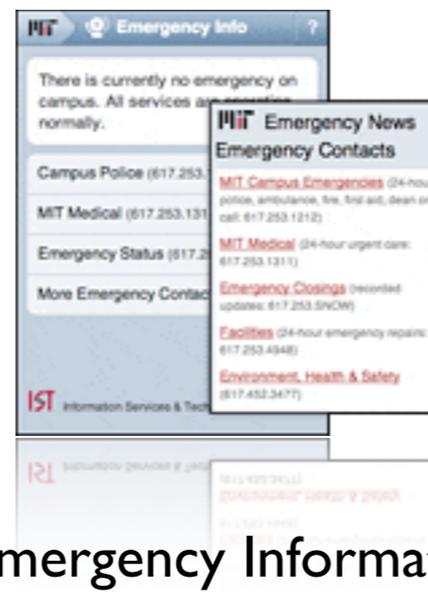
Shuttle Schedule



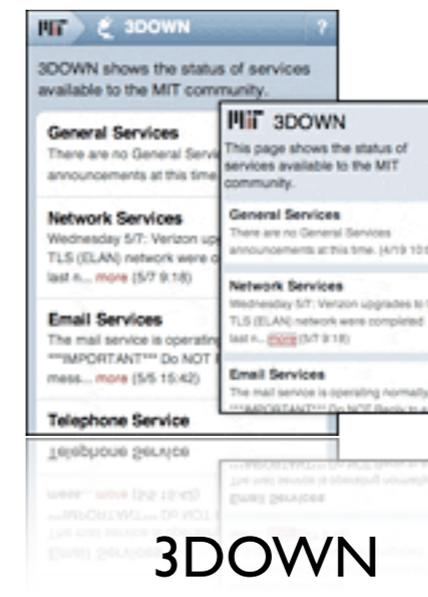
Events Calendar



Stellar



Emergency Information



3DOWN

<http://mobi.mit.edu/>



iPhone Relevancy



- Device **convergence**
- PDA, media player, phone, input device, light-client net device, etc.
- Solid **development** platform
- Excellent **distribution** channels



iPhone @ CUHK

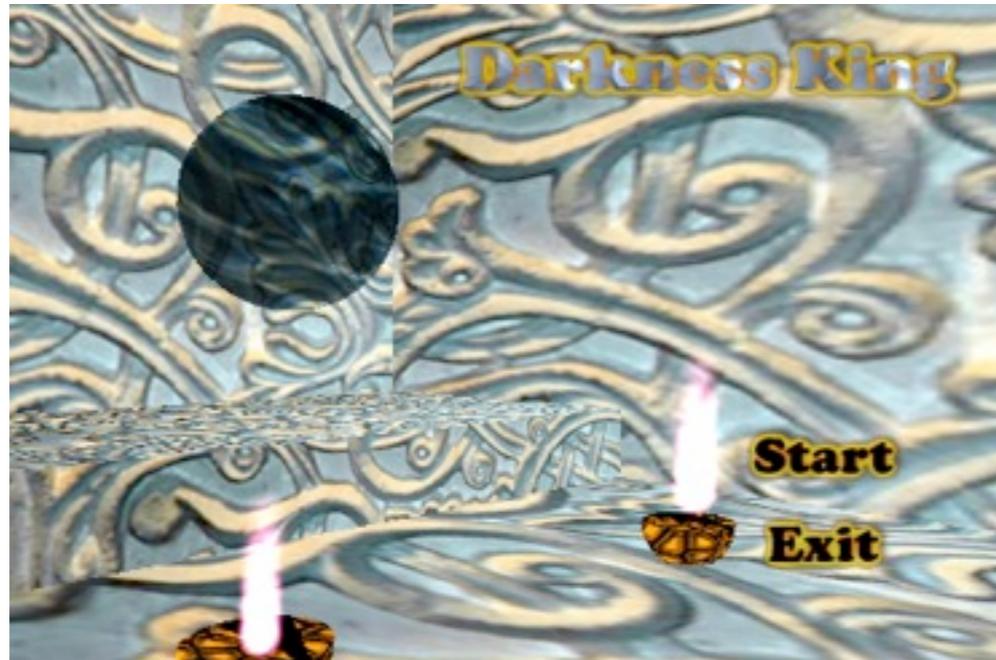
- Attended WWDC2008
- iPhone Final Year Projects
- iPhone Development Program
- Science Park Partnership
- Courseware @ CSE?
- Mobile Campus @ CUHK?



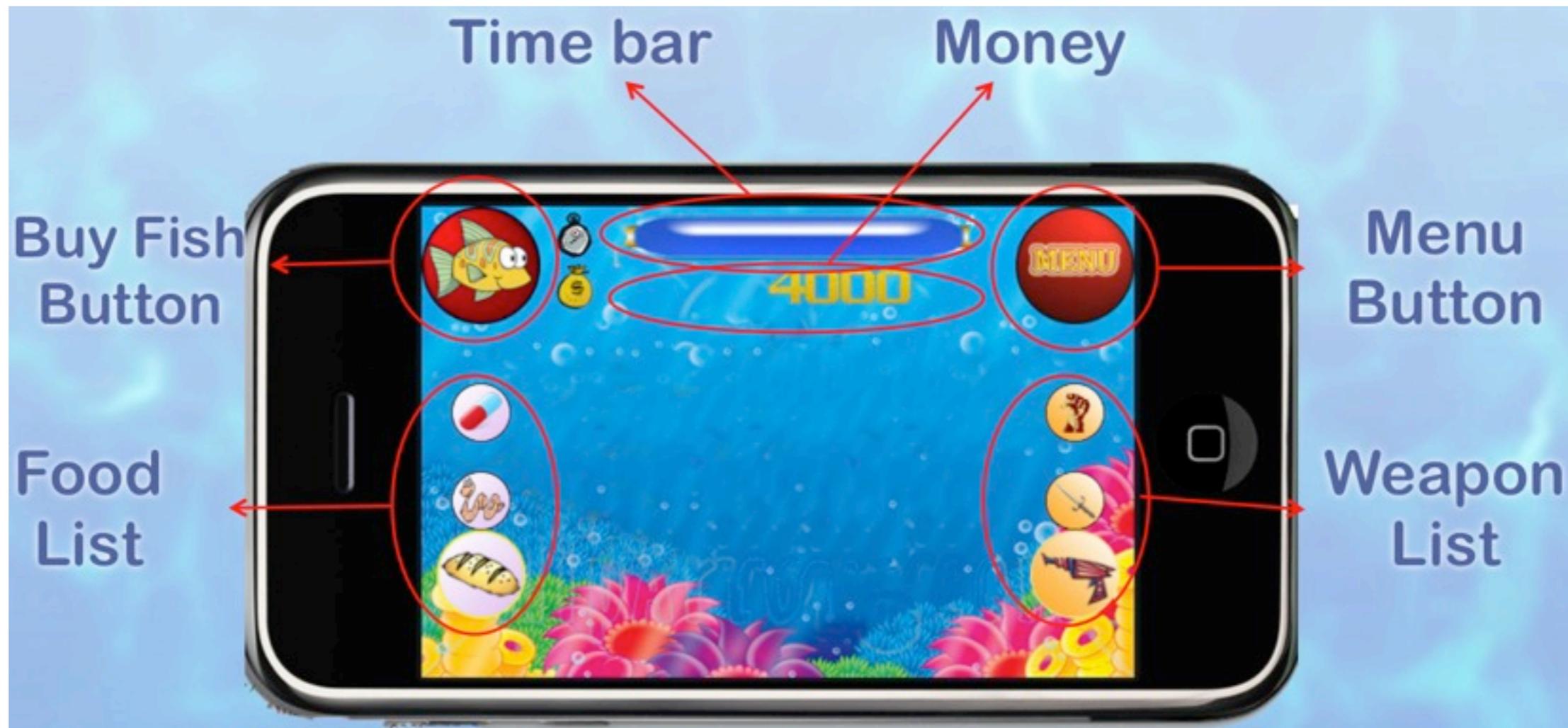
Whirlwind



Maze Game



Wonderful Blue



Lesson Learned

- New device = **New paradigm**
- iPhone (hardware) + Xcode, API, distribution channel (software) = **Total System Integration**
- **Quality** assurance is important
- Very **bright** future with opportunities

The image shows a screenshot of a web page from the Irwin King @ Web Intelligence & Social Computing Lab. The page title is 'FYP IK0802 Game On iPhone (Semester 2)'. The page content includes a 'Table of Contents' with items like 'Title', 'People', 'Game Description', 'Screen Shot', and 'Game Demo'. The 'Game Description' section is visible, describing a game where players feed fish and collect gems. Overlaid on the bottom right of the screenshot is a mobile game interface showing a fish tank with various icons and a 'BUY' button.



On the Horizon

- **Content** generation
- New learning **paradigms**
 - Social Networks
 - Collaborative/Distributed Learning
- **Integration, Interoperation, Infiltration!**



Q & A

<http://www.cse.cuhk.edu.hk/~king>

