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“m” Stands for Mobile

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Mobile Attractiveness

- Broad availability
 - Birth rite in Hong Kong (>130% penetration)
 - Over 600 million Chinese have cell phones
 - Over 3 billion global users and rising
- Technological advances
 - Interface improvements
 - Operating system advances
 - Advanced chip sets available
- Infrastructure support

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Cultural & Usage Shift



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Unlimited Expansion



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"m" Stands for Mobile

- ☞ m-Commerce
- ☞ m-Government
- ☞ m-Learning



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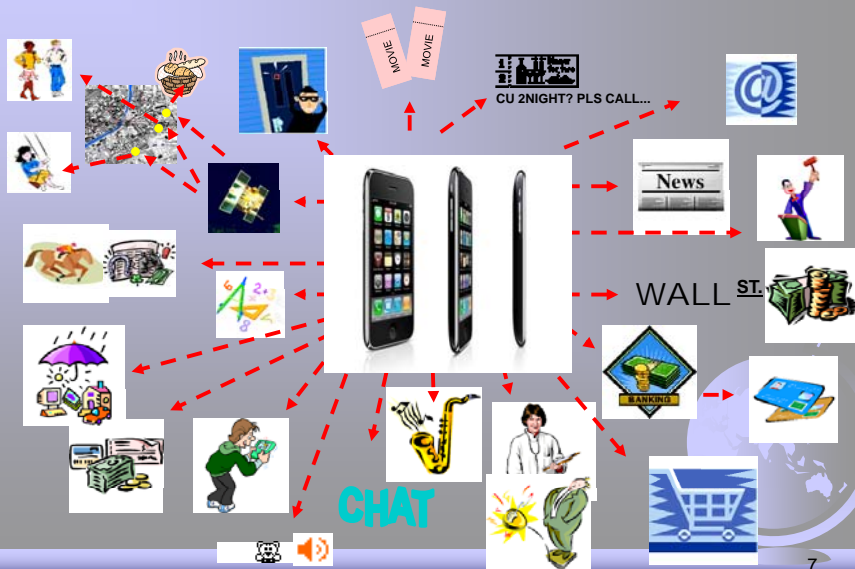
m-Commerce Drivers

- ☞ Ubiquity (omnipresence/everywhere)
- ☞ Reachability
- ☞ Security
- ☞ Convenience
- ☞ Localization
- ☞ Position sensitive information
- ☞ Instant connectivity
- ☞ Personalization



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Some Mobile Products and Services



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m-Commerce Examples

- ☞ Traffic routing
- ☞ Security monitoring
- ☞ Logistics support
- ☞ Payment options
- ☞ Health (homecare and hospital)
- ☞ E-Coupons for shopping discounts
- ☞ Knowledge sharing
- ☞ Entertainment
- ☞ Restaurant reservation / ordering



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m-Government

- ☞ Mobile technologies have brought “fresh air” to e-Government
 - Mobility and ubiquity
 - Location-based government services
 - Timely information delivery
 - Integration with daily life
- ☞ Support for government employees as well as citizens
- ☞ Enables process re-thinking and improvement



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Pilot Innovative Cities



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Beijing Project

- ☞ Initially used special mobile devices to enable government employees to photo record neighborhood problems e.g.,
 - Missing man-hole covers
 - Piles of garbage
- ☞ Focus on efficiency and effectiveness in assigning service agency responsibility
- ☞ Garnered neighborhood cooperation
- ☞ Evolved to directly engage citizenry using GPS-enabled mobile phones



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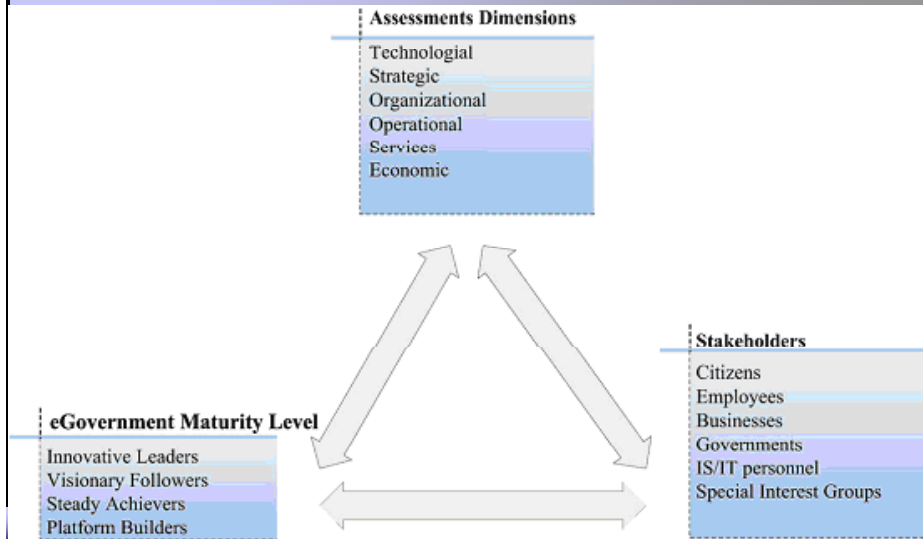


Supervision,
Command
and Control
Centers



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Assessment Framework (Esteves and Joseph, 2008)



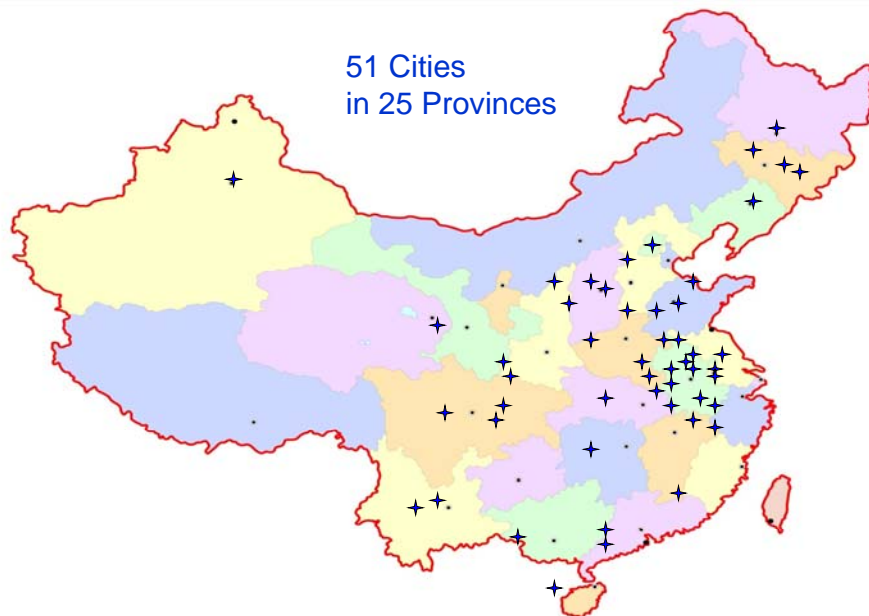
Intended (and un-intended) Effects

- Rapid reaction to neighborhood problems
- Better coordination between agencies
- Responsibility transparency
- Neighborhood engagement and (voluntary) active harmonious cooperation
- Process evolution and innovation
- Flattening of traditional hierarchies
- Self-sustaining government services
- Model for other cities



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Diffusion of Beijing Project throughout China



m-Learning

- To some extent, m-Commerce and m-Government are examples of m-Learning
- On a more focused level, universities play an important role
 - Support for m-Learning
 - Impact evaluation
 - Evolution of “teaching”
 - Evolution of institutions
- Evolution of society e.g., through “Just in Time” learning



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Portfolio of Mobile Applications

In the classroom



Out of the classroom

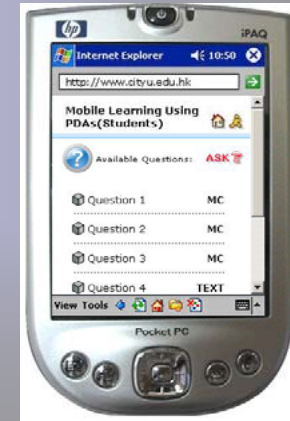


- On-the-spot quizzes & learning materials
- Taking attendance
- Providing classroom feedback
- Collaborative learning
- Interfacing with Blackboard
- E-organization extension
- Edu-tainment
- Field trip support

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In-Class Query / Feedback

- Question initiated by instructor
- Key in response
- Instant collection and feedback to instructor as well as students
- Week-to-week performance tracking



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About eToken

eToken is a system jointly developed by the Faculty of Business and the Department of Information Systems to model real-life transactions over the Internet. In this simulated environment, users earn tokens by completing certain tasks and receive products in exchange for these tokens. [\[more...\]](#)

News

The crossword template named 'E-Commerce - Lecture 11' has been added.	2005-11-24 4:08:33
The solution for the crossword template named 'DSS - Lecture 10' has been added.	2005-11-24 4:08:26
The crossword template named 'DSS - Lecture 10' has been added.	2005-11-24 4:08:26

Current Ranking

1	LO	Wan Sze Wendy	1600
2	DENG	Pei Si	1200
3	TONG	Wing Kai	1200

PDA Download

- e-Tips
- Crossword Puzzle
- Exercise Soln
- e-Lecture Note
- Mobile Exercise
- Building a PC

Login to eToken with your eToken account

ID:
 Password:
 Login

Top Three Finalist will be awarded with

PARKnSHOP coupons
 or
 Book store coupons

Dynamic Crossword Puzzle

- Varied Crossword Puzzle topics
- Layouts, hints and solutions help crossword performers learn as they perform
- Monitoring and tracking of use
- Learning evaluation



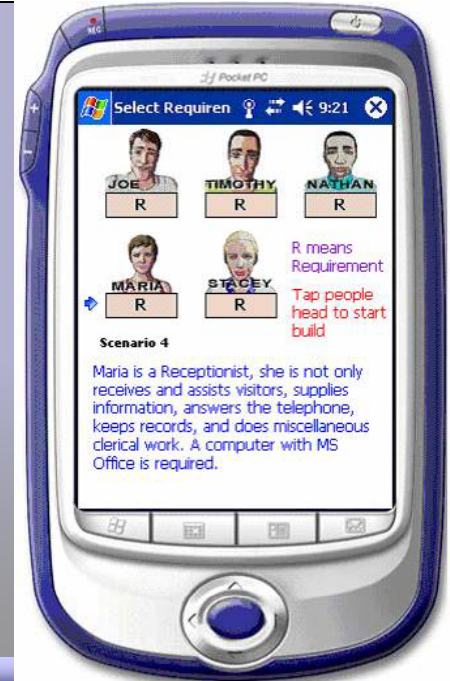
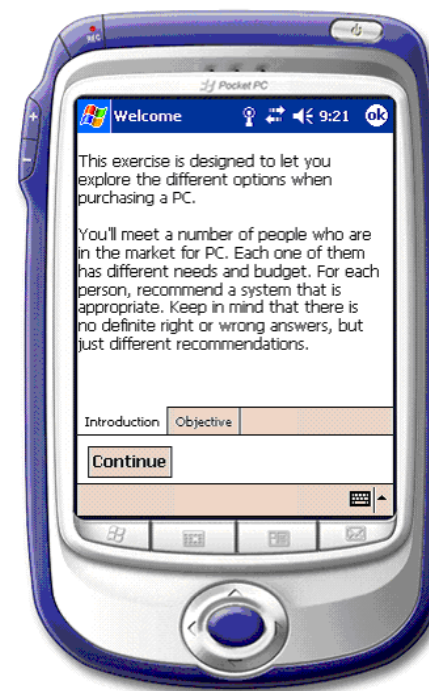
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Build a PC

- Make decisions associated with building or purchasing a computer
 - Different user roles
 - components based on performance vs. price
- On-demand feedback
- Graphics and task can be easily customized



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"tatoes"

- Modified from "Hot Potatoes" JQuiz
- Formative support
- Multiple-choice questions with feedback
 - Why the answer is right or wrong
 - Pointers to assist in further understanding
- Encouraging students to explore alternatives
- Development of a more robust mental model
- Ability to better transfer learning to new tasks

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Take a picture, annotate it, add an audio clip and save to a portfolio



Arctic
Field
Trip
using
"Phototate"



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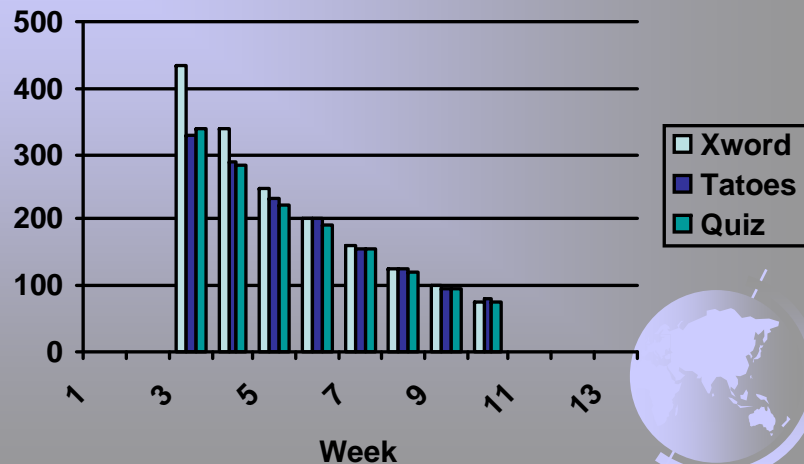
The Good News

- ✍ PDA use exemplifies both intrinsic and extrinsic motivation
- ✍ Some tentative support for learning enhancement as a function of use
 - Significantly better exam scores
 - Significant improvement on final exam after "tatoes" use (with midterm as a covariant)
- ✍ Some support for constructive alignment as a moderator



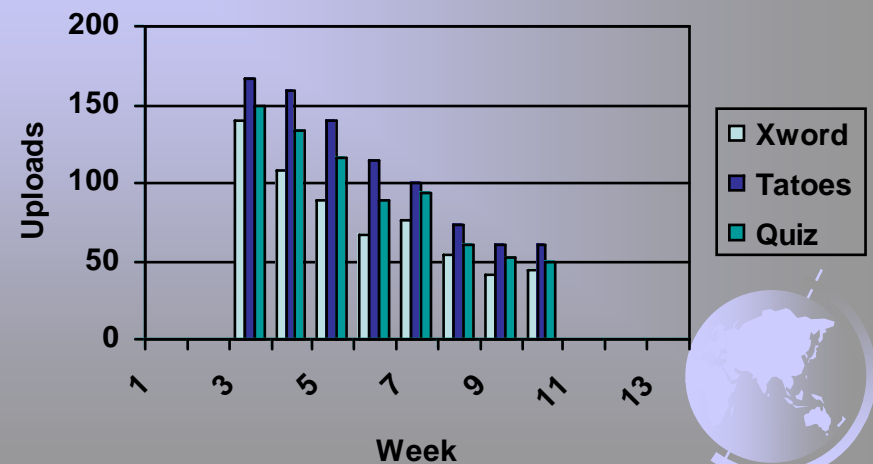
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Exercise Downloads



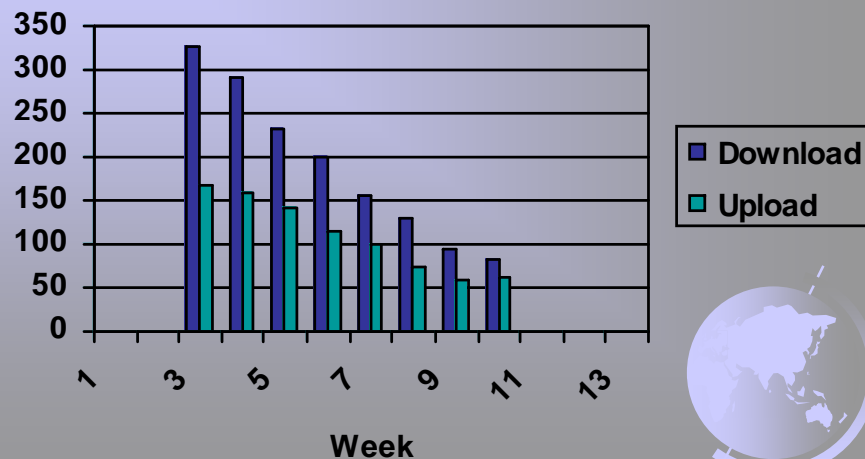
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Exercise Uploads



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Tatoes Downloads/Uploads



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The Not So Good News

- ✦ Once students arrived at the right answer in “tatoes”, they quit!
- ✦ No special evidence of deep learning
- ✦ Still dealing with relative low usage numbers and decreasing use over time
- ✦ Mobile devices less used (and less useful) if not embedded in the learning system
- ✦ Exposed need for faculty development as well as student appreciation for different styles of learning

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Changing Circumstances

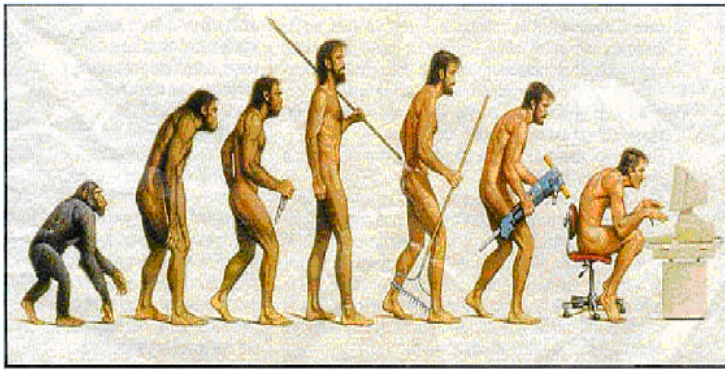
- ✦ PDAs are dead! New mobile phone features re-invigorate application options
 - Global positioning
 - Heightened processing power
 - Commercial “Apps Store” applications
- ✦ Students (and faculty) increasingly using data services
- ✦ Complications of multiple platforms
- ✦ Conceptualization of “learning bubble” surrounding student

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Lessons Learned

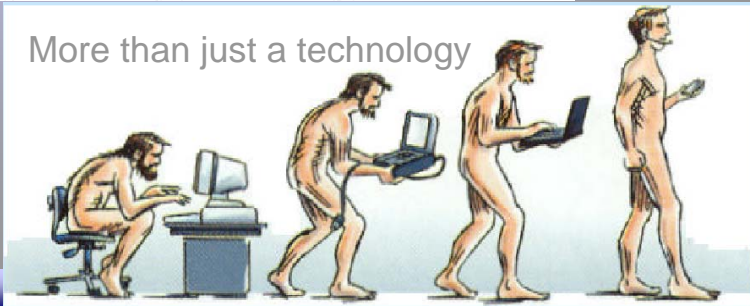
- ✦ Importance of student appreciation for different styles of learning
- ✦ Need for broader mobile device acceptance
- ✦ Necessity for portfolio of applications
- ✦ Need for faculty development and active engagement in creating learning activities
- ✦ Importance of institutional commitment and infrastructure
- ✦ Need for continued evaluation and mobile device design evolution

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Think
Mobile

More than just a technology



The future is
challenging,
but bright!!

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References

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