What will multimedia be like on a hand-held device?

- More personal, diverse, and to be served by a large number of content (or software) providers
- Expected to take more (intuitive) user interactions/inputs
- To link with the physical environments
- Naturally extended to include rich sensors providing rich context
- Expected to present in a concise way both in space and time
In handheld devices, multimedia (software or content) might be …

More personal, diverse, and to be served by a large number of providers/publishers

- Handheld devices to be used in different cultures, countries, ages, genders, occasions, etc.
  - The multimedia needs are very diverse (as the long tail?)
  - Could not be fulfilled by few vendors
  - To be served by a large number of providers (publishers)
- A few phenomena seem to show the trend
  - Purchasing songs through iTunes
  - Purchasing numerous handheld applications online
    - One billion downloads within 9 month for iPhone
    - Google Android Market as an alternative
Considering more intuitive user interactions/inputs

- Why?
  - Limited display size, inputs, use on the move, etc.
- Promising interfaces – speech, touch, video, image, etc.
- For example, double-sided multi-touch input [Shen & Chu, CHI 2009]

Double-sided multi-touch input enables more possible manipulation methods.

Example II, camera phone as the query input [Snaptell]

- Requiring no key-in
To link with the physical environments

- Bring the mobile device anywhere, anytime
- Multimedia shall utilize the rich sensors and work with the physical environment

Two examples
- Lonely Planet guidebooks
  - Tour guide in iPhone rather than a heavy book
  - Tourist sites on the map (location-aware)
- Mobile Augmented Reality Browser
  - By Layer

Mobile Augmented Reality Browser [by Layer]