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<th>Convergence of PC and TV.</th>
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<td><strong>Author(s)</strong></td>
<td>Lee, Seng Chee.</td>
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CONVERGENCE OF PC & TV

By

LEE SENG CHEE

Paper No. 7
Convergence of PC & TV

Lee Seng Chee
Vice President
Television Corporation of Singapore

Convergence - What is it?

Convergence of Technology
Divergence in Perspectives

- Computer industry
  - PC as route to interactive services.
  - either "Wintel" PC, or NC, using IP or ATM as key transport technologies

- TV Industry
  - TV as vehicle to deliver interactivity
  - developing set-top boxes and television sets, using MPEG
PC vs TV

- Personal, lean forward, frowning
- Social, lean back, relax
- Work, learn, play, communicate
- Entertain, inform
- Active interactive
- Passive

PC vs TV

- Office, study desk
- Living room
- Intelligent
- Dumb
- Obsolete after 18 months
- Usable for 18 years
- PhD needed
- Six-beer glass device

Present Status

- Tuner Card
- VCD
- Intercast
- Interactive Teletext
- WebTV
- Enhanced TV
  - Web TV Ver 2
  - NCTV
Challenges to PC/TV convergence

- Technology
  - PC needs to simplify
  - TV needs more functionality
- Usage & Need

Vision of The Future

"Home is no longer a location, home is a concept. I want the feeling of home wherever I am"

Watts Wacker, Futurologist, Yankolovich Associates

Vision of The Future

Living Room

- Technology become less obtrusive, integrating into walls and furniture
- Objects necessary: the control interfaces; more iconic and sculptural
- Access to great amounts of information, including video-on-demand, home shopping, Internet access and video telephony
Vision of The Future
Living Room

- Interactive wallpaper
- Heart
- Control wands
- Recharge trays

Vision of The Future
Living Room

- Technologies merge and miniaturise
- Flatter displays and sound systems
- Becoming a 'living wallpaper' of sound and vision
- Creating a living room with less clutter
- No 'black boxes'
- Only the sound and vision we wish to experience
- Large, flat displays able to show multiple images at any size and in any position
- Sound and light would also be intelligently controlled to optimise the ambience in the room

Vision of The Future
Living Room

- Controls all entertainment and information services in the living room
- Operated through a touch-screen display or by using a control Wand, a small personal remote control
- Controls all major multimedia activities in the room: lighting, temperature and security
- Learning device which begins to understand different users and their preferences
Vision of The Future
Living Room

- personal preference remote controls which are programmed to personalize and preselect media around the house
- voice commands, intuitive interface to home systems and many styles would be available to suit individual tastes

Using induction or direct contact recharging, there could be vases, bowls, mats or surfaces allowing products to be simply placed in or on them to recharge.

Cable free offering freedom of movement
Powered by rechargeable batteries, require recharge bases which are easy to use and fit into the domestic environment in a sympathetic way

Current TCS Initiatives
- MediaCity
- One-On-1
- TV+Plus
- Digital TV
Current TCS Initiatives

- MediaCity
  - Contents:
    News, Entertainment (English), Entertainment (Chinese), TV website
  - Platform:
    Internet
    PC, TV (future)
- One-On-1
- TV+Plus
- Digital TV

Current TCS Initiatives

- MediaCity
- One-On-1
  - Contents:
    TV On-Demand - Pre & Post TV programmes, Out-takes (bloopers, time-slot constraints, supplements), Multi-cam
  - Platform:
    Singapore ONE
    PC, TV (future)
- TV+Plus
- Digital TV

Current TCS Initiatives

- MediaCity
- One-On-1
- TV+Plus
  - Contents:
    TV Guide, Synchronised complementary contents, Personalisation
  - Platform:
    Terrestrial, Cable TV, ADSL
- Digital TV
Digital TV - features

- High immunity against noise
- Multimedia delivery
- Robust against interference
- Ease of frequency planning
- Efficient use of frequency
- Equal quality in service area
- Reduced transmitter power
- HDTV or Multi-channel or Time-shifted

Digital TV - standards

- USA
  - 8-VSB, 1 carrier, 6 MHz

- Europe
  - OFDM QPSK-64QAM, carriers
    - 7/8 MHz, 1705/6817

- Japan
  - OFDM QPSK-64QAM, 1405/5617 carriers
    - 6 MHz

Thank you