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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
- Work, learn, play, communicate
- Active interactive
- Social, lean back, relax
- Entertain, inform
- Passive
- Office, study desk
- Intelligent
- Obsolete after 18 months
- PhD needed
- Living room
- Dumb
- Usable for 18 years
- 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

- 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 (blooper, 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
    TV
- 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, 1405/5617 carriers
  - 7/8 MHz, 1705/6817 MHz

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

Thank you