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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?

Entertainment, Publishing, Information, Programs

Computer Hardware and Software

Telephony, Cable, Satellite, Radio

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

PC vs TV

- 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
MC TV
Challenges to PC/TV convergence

- Technology
  - PC needs to simplify
  - TV needs more functionality

- Usage & Need

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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

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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

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

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

**Vision of The Future**

**Living Room**

- 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, 7/8 MHz, 1705/6817 carriers
  - OFDM QPSK-64QAM, 6 MHz, 1405/6817 carriers
- Japan
  - OFDM QPSK-64QAM, 6 MHz

Thank you