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CONVERGENCE OF PC & TV

By

LEE SENG CHEE

Paper No. 7

lee seng chee

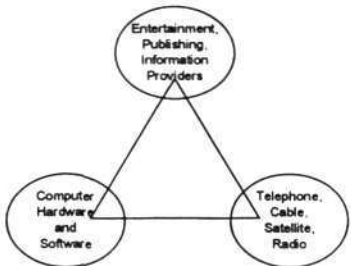
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Convergence of PC & TV

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

cont...

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	◆ Interactive Teletext
◆ VCD	◆ WebTV
◆ Intericast	◆ Enhanced TV <ul style="list-style-type: none">◆ Web TV Ver 2◆ NC TV

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




interactive wallpaper




- ◆ 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



heart



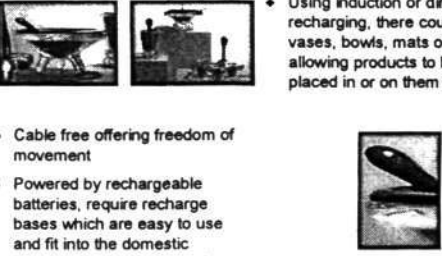
Vision of The Future Living Room



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

control wands

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

recharge trays

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

Thank you