

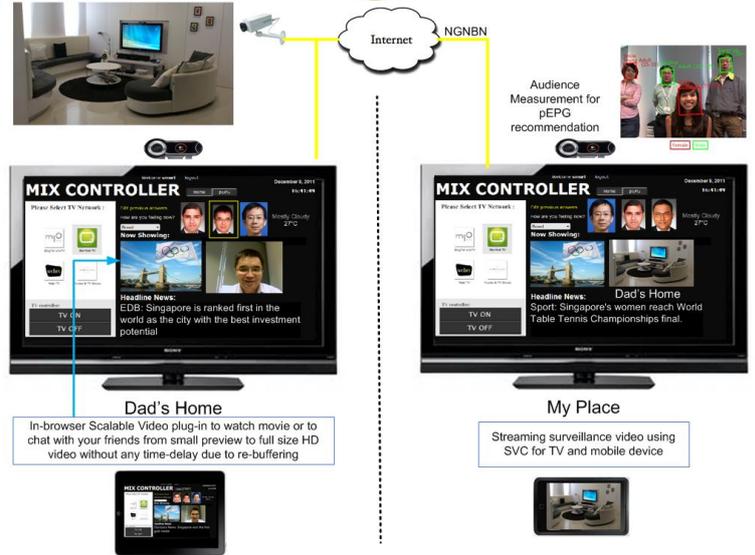
IMAGINATION TO REALITY

i²R

Intelligent Recommendation on Home-Centric Interactive TV

Technology Overview

Smart TV with connection to broadband is getting popular. It gives more content choices beyond just the usual free-to-air approach. With the completion of the Next Generation Nationwide Broadband Network (NGNBN), Singapore will have more bandwidth and service providers. We believe interactivity and personalisation will shape the user's future TV experience when the TVs are connected to NGNBN. Users will also have more options on diverse services being offered, including niche content such as motivational videos, community/school events, home surveillance videos, store-and-retrieve personal videos etc. The key challenge is how to easily manage such diverse sources of content from various service providers and to consume it easily on the device of your choice. This demo will showcase the technology proposed to solve such issues.



Technology Features

1. Enable easy search for the service you want amidst the availability of many Retail Service Providers (RSPs) on NGNBN using the semantic IPTV service discovery technology.
2. Enable interesting content that suits you plus your own home content, such as home surveillance videos, to be scheduled and be presented to you on the TV through content understanding, audience measurement and personalised content recommendation technologies. Users do not have to manually search for what is interesting to watch "now" anymore.
3. Supports seamless viewing of content on multiple devices such as smartphone, tablet, PC and TV, allowing adaptive streaming that matches the video quality with the network condition through the use of scalable media and adaptive streaming technology.
4. Facilitate social interaction while watching TV on a second screen using adaptive scalable video streaming and content-driven game technologies.

Potential Applications

- Web, smartphone or tablet access to electronic programme guide (EPG)
- Interactive EPG provides programme guide facility that matches the user's interest with video recommendations using novel ways of modeling the viewer's watching behavior
- Automatic summarisation and alert of home video surveillance that is processed daily for you to view at your leisure
- Automatic analysis of viewers' content rating and audience measurement to provide added-value to advertisers

Benefits

- Single point easy access to all video sources using the TV remote or web interface on the smartphone or tablet
- User does not have to manually convert the video or store in multiple files for each resolution and format for each device
- Enjoy video playback with any resolution without interruption on various devices such as TV, PC, tablet and smartphone even when the bandwidth is fluctuating
- The audience measurement collects profile information useful for targeted advertising with enhanced privacy-protection
- Video analytic game SDK allowing developers to develop games related to sport video.

Contact Us

Industry Development Department
Institute for Infocomm Research (i²R)
1 Fusionopolis Way, #21-01 Connexis (South Tower), Singapore 138632
Tel: (65) 6408 2000 Fax: (65) 6776 1378 Email: inddev@i2r.a-star.edu.sg
www.i2r.a-star.edu.sg