Sell the sofa, we've got tablet TV

Gary Chan

Tuesday, June 04, 2013

How much time do you spend in front of your flat-screen TV every day?

What about the time you spend on mobile devices - smartphones and tablets?

Nowadays, we spend less time watching TV sitting on a sofa and prefer to watch on the go, using our mobile devices.

This is hardly a surprise given the penetration of broadband wireless networks and the capabilities of mobile devices.

These days wi-fi offers a bandwidth in the tens of Mbps, sufficient to stream very high-quality video. With the recent penetration of 4G services, one can enjoy high bitrate virtually anywhere and anytime.

Further, our mobile devices are equipped with high-resolution displays and processing power.

The video quality is often as vivid as that displayed on our home televisions.

It's no wonder that the younger generation prefers tablets to view entertainment as opposed to sitting down and watching big-screen TVs.

According to a survey, the sum of all forms of video - TV, video-on-demand, internet and peer-to-peer - will reach about 86 percent of global consumer traffic by 2016, making internet traffic predominantly video in nature!

While our viewing habits are gradually moving away from TV to mobile devices, the user's experience on internet video still leaves much to be desired.

Traditional video streaming technology, which we all use, is unsatisfactory with frequent stream interruptions and long delays.

At Hong Kong University of Science and Technology, the next-generation streaming infrastructure, called Streamphony, for mobile users has been developed.

The cloud technology is able to bring real-time multimedia streaming to users' portable devices at the lowest cost and best video quality.
It makes use of multiple cutting-edge network technologies garnered from the Multimedia Technology Research Center of HKUST.

Designed as one of the world's most advanced push-based optimized cloud networks, Streamphony achieves better user experience.

Multimedia streams are divided into substreams and sent over parallel paths intelligently.

It is somewhat like the water source being divided into multiple streams down the mountains that finally merge back into the ocean.

This effectively utilizes network bandwidth and bypasses network bottlenecks, which is far better than any traditional approach.

Streamphony has received extensive support from the Hong Kong government and industry.

The technology has been successfully deployed in industry.

With Streamphony, TV no longer has to be watched sitting in one place. It can be watched on your phones or tablets.

So enjoy TV on a device which is on the palm of your hand, anytime and anywhere!

Gary Chan is an associate professor of the Department of Computer Science and Engineering, Hong Kong University of Science and Technology.