### For Some or For All?

We can conclude that the elderly and those with various impairments may well have difficulties getting started with DTT, but that the DTT platform has considerable potential to make television accessible to all.

## 2. Is accessibility a medical or a social problem?

Offering access services usually lies between the following two extreme scenarios:

- A. Focus on disability and equating them with diseases that require medical attention.
- B. Focus on "the social model of disability where a distinction is made between the terms 'impairment' and 'disability.'

In the first scenario, the (public) health system uses medical science to take corrective action as far as disabilities are concerned. Solutions often require public funding and assuring action ultimately up to those directly affected. In this scenario, those with impairments buy specialised DTT set-top boxes themselves or get them from the public health system. Solutions often ignore the self-esteem of those involved and tend to be ad-hoc, and run the risk of being expensive from a macro-economic perspective.

In the second scenario, however, society at large assumes a collective responsibility for being inclusive. DTT solutions in this scenario focus on hammering out consensus among all the stakeholders in the value chain, including the viewers and organisations representing those with impairments and the elderly. Where consensus is reached, DTT is synonymous with inclusiveness, a respect for the rights and well-being of all.

## 3. What DTT access services can we offer now?

DTT already has a range of

options. There are many mature access services solutions that broadcasters and transmission companies can offer. But tough choices will have to be made. They depend in the first instance on the regulatory climate governing access services and then the application of three criteria:

- A. Is the service to be offered acceptable and have a demonstrable benefit to its intended audience?
- B. Is there a technology that can be integrated into existing work flows and that is scaleable?
- C. Is there a sustainable business model for the service in question? For a service to be viable, all three criteria have to be met.

A prerequisite here is that each stakeholder in the value chain understands the interests and resources of everyone else in the value chain. Unless the solutions chosen constitute a win-win for all concerned, coercion will only lead to services that cannot be sustained.

#### 4. What can be done in the medium term?

The problem facing DTT in particular is that in the course of the coming five years, new production and distribution technologies will emerge that will either enhance or disrupt our existing access services.

A good analogy is deciding whether a solution is an "Ugly Duckling" (something that will grow into a beautiful swan!) or an orphaned "Tiger Cub" brought up by a dog (cute to begin with, but within months a risk to its poor adopted mother!).

All services have a finite life. The challenge is to find the optimum switch-over point where first generation access service "sunset" solutions should give way to second generation "sunrise" solutions. There are many dilemmas when

deciding on the societal "return on investment" – which services are to be offered. Public service broadcasters in particular often work within modest, fixed budgets, and need to come to terms with finite resources and almost infinite demand. There are no easy answers here.

Deciding whether en emerging solution is an Ugly Duckling or a Tiger Cub can be quite difficult. Among the things to be considered is the transition to high definition pictures, multi-channel audio, the use of MPEG-4, the emergence of hybrid terrestrial and IPTV solutions and the option of ultimately moving from digital broadcast to other IPbased options. Text-to-speech is rapidly becoming a reality as affordable chip sets in car navigation systems find their way into digital television. Spoken EPGs and voiceactivated controls need to be carefully assessed, too.

Agreeing on new solutions for DTT takes a great deal of time and hard work that ultimately pays for itself. This is why in Europe we are seeing special-interest groups, broadcasters, and hardware manufacturers embark on collaborative endeavours to discuss options and come up with scaleable solutions that will ensure that digital television is accessible to all. There should be something to report on well before analogue shut-off in Hong Kong in 2012. Watch this space!

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# Digital Television -

For most people around the world, watching television is a simple matter. In the "good old days" of analogue television, buying a new TV was not a problem either. Some of the channels needed to be pre-set. The viewer needed to read the manual, or ask for help, after which he or she could turn on the set and find something to watch.

In the course of the next five years, most countries will switch on digital television and switch off analogue transmissions. Hong Kong launched the world's first commercial digital cable service more than a decade ago, and started digital terrestrial television (DTT) on 31 December 2007. Analogue shutoff is planned to take place in the course of 2012.

The question is whether digital TV is as easy to set up and use as analogue.

DTT has some unique challenges, as it is commonly used as the means of distributing free-to-air programming (television channels paid for by advertising, a broadcast licence or out of the public purse). Public service and state broadcasting aim to be socially inclusive and have the obligation to make television accessible for all. Here is how I see the challenges and their solutions.

## 1. What are the main problems?

Getting started

Watching DTT requires the viewer either to purchase an integrated digital television receiver or a digital set-top box and connect it to their existing television set. They may have to change their aerial or buy a new one.

On the face of it, this should not be a big problem, but recent studies indicate that the elderly and those with visual, hearing or intellectual impairments are more likely to have problems getting started than the young or those without sensory impairments.

Good product manuals and help facilities in the receiver and preset to the appropriate language are important. Compliance regimes – independent confirmation that a given product meets minimum requirements – can make a difference, provided that there are incentives for manufacturers to submit (and pay for) their products to be tested.

In markets where consumers have the right to return a product that does not meet their requirements, the lack of product testing may be financially onerous for retailers (lower profits due to purchase refunds) as well as for broadcasters and service providers (spiralling costs due to increased traffic at their call centres).

Digital television – for some or for all?

Once the digital television has been set up, the next set of challenges is the extent to which it is truly a service for all. Do people really have problems using a digital television set? In Hong Kong, about 4% of the population reports having some kind of physical, sensory or mental impairment.

By international standards this number seems to be quite low.

In the USA, "approximately 1 in 5 Americans has some form of disability, and 1 in 10 has a severe disability... Disabilities can occur at any age, but they are most prevalent among those over age 65."

Overall, "people with disabilities constitute about 15% of the European population... Accessible ICT products and services [including digital television] have now become a priority in Europe, due to the demographic shift: 18% of the

European population was aged over 60 in 1990, while this is expected to rise to 30% by 2030."

The transition from analogue to digital terrestrial transmission in Europe by 2012 represents a unique opportunity to provide better access to TV and other services for people with disabilities.

In Europe, hearing impairments seem to be somewhat higher than the 1% figure quoted for Hong Kong. Mellors explains that variations from one country to another are often due to different criteria for what constitutes an impairment.

Assessing the size and nature of the demand for access services is not straight-forward, either. An OFCOM review in the UK shows that the demand for access services such as subtitling is very significant. 12.3% of the population said that they had used subtitles to watch television, of whom about 6 million (10%) did not have a hearing impairment.

It seems that subtitling in particular is used not only by those with hearing impairments but also by those who find it difficult to understand young people speaking quickly or using slang; in countries with two or more official languages where it is useful to facilitate the understanding of all of these languages by offering opt-in subtitles; and in countries with significant immigrant groups for whom subtitling in their mother tongue may promote integration and social cohesion.

Audio description and signing for those with hearing impairments are increasingly common.

"Those who had used audio description regarded it as very helpful in understanding programmes better, and ... a significant proportion who had not used audio description were keen to try it."