

# **TV ON YOUR MOBILE:THE NEXT BIG THING? DESIGNING CONTENT FOR CELL TV\***

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## **INTRODUCTION**

Recent developments in telemedia delivery systems, especially in terms of speed and capacity, have spawned newer avenues through which mass-mediated messages and creative content can be disseminated to consumers. Cell TV -- television on your cell phone – is currently drawing a significant amount of attention and discussion. It is being touted as “the next big thing in the next decade”. Will it be successful? Or will it be just another business hype enabling telcos (or whoever) to raise cash with venture capitalists only to see their oft-celebrated technology and attendant services never really getting off the ground and, concomitantly, getting themselves into the red?

All said, digital multimedia broadcasting [DMB], promising the transmission of tv programs to your mobile phones, is a new technology in search of concrete business as well as marketing plans. Economies of scale are undoubted imperatives apart from the fact that cell tv does not come with, for instance, the benefits of the home theatre system or the dolby sense-surround (as found in cineplexes) audio effects. Therefore, it is imperative that telcos and content providers fully understand the medium of cell tv and its shortcomings before plunging headlong into the pool. The euphoria surrounding the advent of cell tv has to match the realities of consumer psychographic and demographic patterns especially viewing habits, lifestyles and preferences, and affordability issues. The author cautions against pushing available content to consumers, especially content which are much of the same thing not

far different from those made available for us since the advent of tv. Currently, albeit, sadly, this seems to be what is happening and it could well turn out to be a recipe for disaster.

This article surveys the realities of the new technology and shares some thoughts on the designing of a successful cell tv service and its continued acceptance. By analysing the pitfalls and shortcomings of web tv, 3G, and dotcom companies, the author proposes strategies and insights into elegant content design and programming fare that could pave the way for the steady growth of cell tv, of smart antennas, and of efficient and caring wireless societies.

## **1. Introduction & Brief History**

When Alexander Graham Bell worked on inventing the telephone in 1876, he envisioned the communication tool being able to provide entrepreneurs in particular with a service he described as a business of the most remunerative kind. Bell perceived the immense value of the telephone not only to commerce but also to the general public: a service which everyone eventually could afford and one which could generate a lot of money. That was 130 years ago. And true to his prediction, his invention had spawned what is today worth an estimated U.S.\$250 billion dollar sector -- arguably the healthiest and most stable -- of the global economy. Much of the net worth of the sector today has been closely linked to and boosted by the availability of the Internet and the World Wide Web since the mid-eighties. The convergence of ICT and broadcasting in the last decade, in particular, has significantly contributed to the development and expansion of the telecommunications sector, its related services and revenues across the globe.

And ninety years since the invention of the telephone, 'Early Bird', the first commercial communication satellite was launched into geosynchronous orbit on April 6, 1965. And since then, terrestrial communication by satellite has significantly improved in terms of

coverage, capacity, command and control procedures, and orbital manoeuvre life as newly independent countries invest millions of dollars to improved domestic as well international telecommunications in the post colonial era. Since the first telegraph line was installed in 1896, the telecommunications sector in Malaysia has witnessed and has undergone unprecedented growth and expansion in state-of-the-art transmission technology and network capacity.

Malaysia's entry into the realm of commercial satellite operations was characterised with the landmark launching of MEASAT 1 on January 13, 1996.<sup>1</sup> In tandem with the development in microelectronics and IT, the nation ushered in an era commonly referred to as the Communications Revolution and the so-called Information Age and, eventually, the embracing of the K- Economy.<sup>2</sup> The Malaysian government's pivotal role characterised by the adoption of policies to boost Internet access and in the development of the multimedia sector and services, the deregulation of the telecommunication sector and intensive IT literacy campaigns, were catalytic in paving the way towards the making of a well-informed and wired Malaysian society, one which is satisfactorily high in computer literacy and Internet usage.

The advent of new information and communication technologies and telemedia delivery systems in the last three decades has witnessed unprecedented growth and expansion of the state-of-the-art transmission capability and network capacity. Apart from enhancing the manner, speed and volume by which data, voice and visual images are communicated across the globe, transoceanic space borne and fibre-optic submarine communications also have widened spectrum choices besides expanding the scope via which the intellectual and creative communities can share their works with the public.

Today, we have what is commonly known as the multichannel environment, the "tube of plenty" [or could it be "more of the same

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1 MEASAT 2 with a wider footprint to cover the Philippines, Taiwan, Vietnam, Eastern Australia, Indonesia (Java and Sumatra), was subsequently launched on November 13, 1996. MEASAT 3, with 24 C-band and 24 Ku-Band capacity transponders to cover Africa, Middle East, Eastern Europe, Asia and Australia, is scheduled to be launched sometime in the middle of this year (2007).

2 "Taking the Nation into the Information Age", [Computimes], New Straits Times, June 3, p. 23. See also: "The Changing Face of Malaysia: Can It Leapfrog into the Information Age?", Intermedia, (August, 1999), Vol. 27, No. 4).

thing”?) and the existence of a global telemedia marketplace. When we first initiated the broadcasting sequence at the then School of Mass Communications (ITM) in 1973, I remembered lecturers training broadcasting majors to eventually find work at the government-owned RTM (Radio-Televisyen Malaysia) and Filem Negara (formerly, the Malayan Filem Unit). Today, the existence of a multichannel-multimedia environment dictates that we continually update our knowledge and skills to prepare students to take on jobs related to the production of creative-interactive content for a multiplicity of channels and the efficient management of no-longer scarce resources, smart conduits and digital networks in a global setting: a challenging task shaped and inspired by the ever changing media landscape.

And digital tv on the mobile phone is poised and predicted to become a formidable industry in itself. It is about to further alter the media landscape and it has far reaching implications on the regulatory framework, spectrum choice, content creation whilst promising to create an estimated 22,000 job opportunities particularly amongst the younger generation besides combining the skills of the people already in broadcasting and telecommunication sectors. Also if properly executed, there is the promise of ample revenues to be made from WDTV (Wireless Digital Video Telephony) or mobile tv through the transmission of content anytime, anywhere, and on the go.

## **2. The Present Mobile TV Landscape**

Today, content for satellite and cable television and other digital animated works like video games and cartoons are making their appearance on mobile handsets as downloads and as streamed services. Currently, South Korea holds the distinction of leading the pack of nations dedicating their energies and attention to developing direct broadcast digital telemedia delivery systems and content to cell phone users. TU Media Corp., an affiliate of the giant SK Telekom, on Labour Day 2005, launched the world’s first commercial service delivering broadcast television to cell phone users: 7 video and 20 audio channels with a capacity to expand to 40 in the near future. High-end digital tv cell phones developed by Samsung utilising very fast and reliable custom-produced Texas Instrument micro semi-conductors have paved

the way for digital tv to become a hot application in the first half of the year (2005). Advanced multimedia processor technology like the ones developed by Texas Instrument has the capacity to enable users to receive Digital Multimedia Broadcasting (DMB) signals from satellites or from a seamless network of terrestrial transmitters or hot-spots. Korea's state-backed Electronics & Telecommunication Research Institute (ETRI) anticipates that the mobile "tv in your palm" service will develop to become a U.S.\$35 billion annual business globally, with a potential to create 88,000 jobs in Korea alone. Reflecting optimistically on the high appetite amongst Korean cell phone users for watching their favourite programmes and live broadcasts anytime, anywhere, the President of Texas Instrument Asia, Terry Cheng remarked:

*"....the acceleration of mobile digital TV adoption is well underway in the technology-savvy Korean market.... and TI [Texas Instrument] is proud to be a part of this growth combining its strengths with Samsung to deliver a new and better user experience to countless Korean made phone users".<sup>3</sup>*

Cheng's remarks are being echoed elsewhere where mobile tv transmission tests are currently being carried out. There seems to be a prevailing sense of euphoria surrounding the entry of a new conduit for amassing the delivery of digital but yet to be de-massified media content as had happened in Japan. UCLA's Asiamedia reported that in Japan, the nation's six major television networks -- NHK, TBS, NTV, TV Asahi, Fuji TV and TV Tokyo -- have all entered into an agreement to beam high-quality TV images to mobile phone users.<sup>4</sup> Economies of scale dictate that the mass markets in Tokyo, Osaka and Nagoya be the initial prime targets of this new service relayed to hand phones developed by Vodafone. This new service is expected to be launched in early 2006.<sup>5</sup>

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3 "World's First Cell Phone TV service launched in Korea", [www.highbeam.com/library](http://www.highbeam.com/library) [5/2/2005]. See also: "Samsung Delivers Mobile Digital TV to Korea Using TI Technology": [www.telstreet.com/forum](http://www.telstreet.com/forum).

4 UCLA Asia Institute: [www.asiamedia.ucla.edu](http://www.asiamedia.ucla.edu)

5 "Vodafone to release Japan's first cell phone with built-in TV tuner", Asia-Pacific Media Network: [www.akibalive.com/archives](http://www.akibalive.com/archives).

In Britain, NTL Broadcast and cellular phone company O2 are working together on a mobile tv initiative in and around the Oxford area while similar trials are being carried out in France, Finland, and in the United States with DVB-H (Digital Video Broadcast-Handheld) digital television beamed to high-end cellular phones. Besides Korea and Japan, Taiwan and Singapore have also joined in the fray to develop mobile tv systems and test transmissions that could well put large screens into cellphone users' pockets and offering infotainment fare on-the-go.<sup>6</sup>

While others are experimenting with mobile tv, we in Malaysia have just witnessed the much awaited launching of 3G (Third generation mobile telephony) applications and transmission systems. 3G service is currently being offered by two major cellular companies: Celcom and Maxis. Deputy Prime Minister of Malaysia, Datuk Seri Mohd. Najib Tun Abdul Razak described Celcom's 3G launch as marking another milestone in the development of telecommunication and "heralding a new era in mobility that has opened up a world of possibilities for the power of true connection", He hopes that the "subscription to 3G must not be so high that it would be only available to certain classes of people".<sup>7</sup> Meanwhile, Malaysian Minister for Energy, Water and Communications, Datuk Seri Dr. Lim Keng Yaik chided cell phone companies over poor reception quality while launching Maxis 3G – the first prepaid service in the country - on July 1, 2005:

*"Do not make empty promises and leave customers facing problems of poor quality and coverage later. I have encountered problems with my mobile services. Performance is incredibly important for both the network and handsets. There is no use having high-tech equipment and products when you cannot deliver the services".<sup>8</sup>*

Use of 3G among Malaysians is at the early adoption stage as Maxis and Celcom strive to improve network capacity for seamless connections

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6 For a summary of the current state of development of mobile tv systems and test transmissions, see, for instance: "Mobile: More Questions than Answers", Digital News [Journal of the Digital TV Group], June, 2005, p. 19.

7 "Are Malaysians ready for 3G?", The STAR, June 30, 2005, p. 7

8 "Don't make empty 3G promises, telcos warned", The STAR, July 2, 2005, p. 10.

at least in the more urban areas in Peninsular Malaysia. Although its utilisation will be centred on speedy Internet connection, 3G is also seen as a forerunner to the implementation of mobile TV in the country. Unsatisfactory audio and video signals and slow download time are seen as major impediments to steady subscription growth apart from cost of data card and other start-ups. Another drawback is the limited coverage which is confined to metropolitan areas with powerful hot spots that have access to 3G coverage. These factors aside, users are also wary about getting more of the same thing – ie. content that are already available on satellite television. In other words, users are less keen to watch or follow what is already available on ASTRO. Nothing beats the tv set when it comes to watching satellite delivered programmes. Cellphone users prefer to catch news and trends on-the-go and would go for highlights of global events and business news and round up of money market and stock exchange performances around the globe. They would prefer the repackaging of news reports – those that are brought by programmers like CNBC, BBC and CNN -- to their 3G enabled handphones. This is an important consideration for mobile tv if it is to succeed in future because, at present, what is being put on cellphones via 3G is still broadcasting in nature; it is still a transmission from ‘one to many’ and not ‘one to one’. That the nature of handphones being a truly personal item (and very mobile unlike the desktop) dictates that content should embrace the flavour of narrowcasting and cater to audiences’ specific needs, tastes and preferences. This matter will be deliberated in section four of this paper. Before that, let’s first look at the highlights of the findings of a consumer (cellphone users) survey conducted amongst 990 respondents residing in the Klang Valley and feedback on the *par* (potential acceptance rate) factor of mobile tv.

### **3. The Problem with Mobile TV**

Blurry and flickering images and barely audible sound seem to be some of the major complaints levied by the early adopters of mobile tv. These shortcomings tend to impede mobile tv’s development and, hence, its

wide acceptance. Besides this, the small screen on the cell phone makes it cumbersome especially to the over forty-fives (incidentally, these are the people with the highest purchasing power) who, considering their age, may not be able to focus onto the small screen as effectively as when they were, say, twenty years younger.

Also cell tv is no match to watching tv that is equipped with the home theatre system in the living room. Watching streaming videos live on the cellphone (or those that are downloaded) drains the batteries fast. And if you are out with your girlfriend at a nearby restaurant and she spends more than half the time watching tv on her cellphone, this raises the question of etiquette. The prospect of mobile phone addicts watching tv while driving also raises the question of safety on the roads. All these factors seem to point to an early demise of mobile tv but then optimists are exulting over its potential as a personal entertainment medium saying that kids can watch cartoons while sitting on the back seat of their parent's car and that people can catch short mobisodes (short form for mobile episodes) while waiting at airport lounges or while waiting in line at checkout counters at departmental stores.

Nonetheless, it is heartening to note that cellular operators and the major cellphone manufacturers are sparing no effort to continually improve network capacity and capability besides coming out with state-of-the-art high resolution screens that offer cellphone users quick Internet access, video conferencing and video calls, and digital multimedia broadcasting. All said, signs are that mobile tv is poised to turn out to be a favourite amongst cellphone users particularly when the price is right and when content -- especially those that are primarily crafted on the affinity and affiliation approach -- meets up to individual preferences and tastes.

#### **4.0 Broadcasting or Narrowcasting? : Adopting The Affinity, Affiliation and Community Development Approach in Content Creation for Mobile TV**

Mobile tv is currently a technology in search of a market. It is constantly on the look out for and needs to be backed by full-proof business plans. Studio entertainment executives see it as the next venue for



video entertainment, a conduit to sell advertising, and a platform to cross-promote media products like tv programmes, CDs, and movies at the cineplexes. It needs original content. Therefore, relaying content already available on satellite tv to handphone users may turn out to be an ineffective way to increase the subscriber base and sponsorship revenues.

If mobile tv is to run on a profitable basis, then operators should go for segment sponsorship rather than commercials per se. Aside from monthly subscriptions by users, content should be elegantly produced and properly segmented to meet audience specific preferences and needs. Here, I propose to address the issue of segmentations and specific content programming by breaking up the mobile tv landscape into specific scenarios. Let's begin with the entertainment scenario, followed by sports and recreation, community development, general and business news, stock and money market updates, adventure, tourism and travel as a special package and last, but not least, the political scenario.

#### **4.1 The Entertainment Scenario**

Offering full length movies and dramas on cell tv may not be such a good idea because this would certainly drain battery life. I would imagine that very few subscribers would want to watch a full length movie on a two-inch square mobile phone screen. The best option is to go for "entertainment on-the-go". But offering short episodes of drama serials that last for about 120 seconds per episode is ideal for mobile tv. Apart from this, operators can throw in quizzes on the drama series and subscribers can try their luck at winning special prizes which can be promoted within the programme. One of the most likely programming fares that will attract subscribers especially youngsters is music videos. But putting MTV on the cell tv fare may not be an effective option as compared to the re-packaging and relaying of music videos that feature subscribers' favourite artists in performance. This option favours a subscriber choosing a maximum of ten (10) of his or her favourite artistes or the group of his or her choice and the cellular operator relays programmes and music videos of the selected artistes to the subscriber's hand phones. Artistes can also send personalized

messages to subscribers and vice-versa. In this way, the narrowcasting flavour is being met.

## **4.2 Sports and Recreation**

Quick newscasts of sporting events and results are preferred over the relaying of ESPN or StarSports channel over cellular networks. The networks re-package the events and present only the highlights of the games played. Premised on the concept of affinity and affiliation, cellular networks should design content to suit the preferences of a specific group of sports and recreation enthusiasts. For example, let's take fishing. There are about 32,000 fishing enthusiasts in the country; people who take fishing as a serious hobby. In designing mobile tv content for fishing enthusiasts, the cellular phone network specially package the programming fare for them. Items like news and discussions on the various hot spots for fishing, techniques for fishing in the high seas, resorts and holiday destinations that cater to fishing, fishing holiday packages, promotion of fishing gear, isotonic drinks, and storage facilities can also be featured in the programming fare specially produced for fishing enthusiasts who would then pay a monthly subscription.

Another example would be the upcoming World Cup Soccer Finals to be hosted in South Africa. Instead of relaying all matches to soccer fans, in this instance, subscribers choose 40 out of all matches that will get underway. The cellular company then presents highlights of the 40 events of the subscriber's choice on his or her cellphone. The opening and closing ceremonies are also thrown in aside from the highlights of the 40 matches chosen. An example of the possible mobile Tv programming fare for sports and recreation is described in the table on the next page:

**Content for Mobile TV: The Sports & Recreation Scene**

<b>Event</b>	<b>The Subscribers</b>	<b>Mode/Output</b>	<b>Segment Sponsor/ Advertiser</b>
World Cup 2010 [South Africa]	Sports Enthusiasts	Subscriber to choose 40 of the matches being played and the highlights of those matches. Opening & Closing ceremonies thrown in	Nestle 100 Plus Petronas Nike Nokia Proton
Fishing	Fishing Enthusiasts	All about fishing; Competitions; Sites; Organised fishing trips and holidays, etc.	Health Tonic Drink Manufacturers, Magazines, Apparels, Storage products, Boat engines, etc.
Soccer	Soccer fans	EPL Highlights; Best goals scored; Quick newscasts; Video clips of interviews; Sports results, etc.	Sports equipment; Telcos; Car manufacturers; Footwear and apparels, etc.
Golf	Golf players, fans	Highlights of golf games played, tournaments, events, Golf resorts, special packages	Sports/Golf Equipment, holiday destinations, Travel agencies, Airlines, Credit cards

**4.3 Content for Mobile TV: Affinity, Affiliation & Community Development:**

Mobile TV promises to be a boon to corporate communications and employee relations. Properly and effectively utilised, it can also assist firms in enhancing customer relations and customer satisfaction through messages and visuals that can be relayed in the context of follow-up or what is commonly referred to as after sales service. Firms and government linked companies with employees of more than 25,000 stand to gain from the utilisation of mobile tv services where top management are privileged to relay images as well as important messages to employees. The President and CEO or the Managing Director of a telecom giant, or an oil and gas behemoth or an airline like Air Asia, can relay New Year as well as other motivational messages packaged with video clips of events that have significance to the company’s history and milestone achievements. Even foundations and non-governmental organizations stand to benefit from these types of corporate communication strategies which utilises mobile tv as a means of enhancing member-organisation affinity. Types of content and messages that are in tandem with the concept of affinity and affiliation are shown in the following table:

Agency/NGO & Programme Type	The Subscribers	Mode/Output	Segment Sponsor/ Advertiser
DBKL Kuala Lumpur/ City Living; Building Better Communities	City Dwellers (K.L.)	All types of programmes and segments and quick newscasts about the city; calendar of events; happenings	Oil companies Telcos Car Manufacturers Banks Finance Companies Shopping complexes, etc.

National Heart Institute; National Heart Association Medic TV	Heart Patients and those interested in Cardiovascular diseases	Latest procedures; treatment; latest medication; hospitals; Healthy living, stress reduction, etc.	Pharmaceutical companies Manufacturers, Health Drinks, Apparels, etc.
University [UiTM]	Lecturers, Staff and Students; Parents; Alumni	C a m p u s Highlights; VC's message; Seminars; Video clips of convocation; Academic calendar, research, etc.	Banks; Telcos; Car manufacturers; Footwear and apparels, Computer companies, etc.
Petronas [or any other oil company]	Petronas senior management personnel, officers, employees, petrol kiosk dealers, platform workers	Highlights of messages from management, events, the petroleum industry in gener; news from various sections in Petronas	Petronas products and services

#### **4.4 Financial/Business News and Highlights of Stock and Share Market Performances**

The cellular company selected or assigned to run mobile tv services ought to re-package its subscribers with quick newscasts about the performances of the various major bourses in the world, money markets, commodity prices, trade and other news that are important and relevant to the business community. Sponsors for the various segments can

include banks, petroleum companies, manufacturers, service providers, and companies in the ICT business. Amongst the early subscribers to these kind of messages and visuals will be members from the trade, business and financial sectors and civil servants serving in the trade, banking and related financial sectors.

**4.5 Adventure, Tourism and Travel: Content for Mobile TV**

This channel on the mobile Tv programming fare is aimed at keeping subscribers informed of the various tour packages available, holiday destinations, special events, cultural activities, fine cuisines, and adventure type trips. Programming content are described in the table below:

<b>Agency/NGO &amp; Programme Type</b>	<b>The Subscribers</b>	<b>Mode/Output</b>	<b>Segment Sponsor/ Advertiser</b>
Tourism Ministry; Association of Tour Agencies	General population who are interested in travelling	All types of tourism related programmes and segments and quick newscasts about holiday destinations; calendar of events; happenings; special tour packages, etc.	Tour & Travel agencies, Banks, Finance Companies, Shopping complexes, Resorts, Airlines, Car Rental companies, etc.

**4.6 The Political Scene**

By working closely with a political party, the cellular company can provide various types of information and updates to party members. Special messages from party leaders can also be relayed to members.

Excerpts of speeches made by leaders during campaigns in the run up to state and parliamentary elections can also be relayed to subscribers. They or their political party can be charged a specific fee.

## **5.0 Conclusion & Recommendations**

In my view, mobile tv is poised to alter the media landscape in Malaysia and elsewhere in the developed and developing world. It will become an important and relevant conduit for the dissemination of entertainment and psywar/psyop information to subscribers. It certainly has the potential to be developed into a business entity besides being a facility that could foster community development and enhance community interest and well being. At this stage, the technology is still searching for a market and needs a sound business plan so as to ensure maximum returns on investment. Some of the potential sponsors and advertisers for mobile tv have been mentioned in this paper. Besides the creation of new jobs and the potential to bring together the best skills in the mobile industry and those in the broadcasting industry, mobile tv also has the potential to become [to borrow Alexander Bell's words] "a business of the most remunerative kind".

To nurture the steady growth of mobile tv, a special interest group (SIG) like a Mobile TV Task Force or a select committee that is focused on the Implementation of DVB-H or DMB must be formed and spearheaded by the Malaysian Communication and Multimedia Commission. Its members should include representatives from the cellular companies, the broadcasting industry, the creative and intellectual communities, and the potential sponsors. Members from specific foundations and non-governmental organizations can also be invited to sit in the special DVB-H task force.

Meanwhile, ownership of spectrum relay systems must be kept to a minimum in order to ensure maximisation of the economies of scale and to preclude over crowdedness and excessive market fragmentation.

Ideally one; the most two. In my view, it is best that the spectrum be given to single cellular company that has the experience in content design and production. In this case, it ought to be MAXIS, a cellular

company which is affiliated to ASTRO, the latter having excellent production facilities at its Sungei Besi All Asia Broadcasting Complex. With a robust framework and policy guidelines, I envisaged mobile tv becoming an exciting provider of infotainment on-the-go encompassing the flavour of narrowcasting . . . and the key is to make the most of it for the benefit and well-being of the community especially in the context of promoting 1Malaysia for the good of our future generation.



Digital Video Telephony [WDVT] – Mobile TV: Tube of plenty or more of the same thing?



