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**MOBILE TV:
OLD AND NEW IN THE CONSTRUCTION OF AN EMERGENT
TECHNOLOGY**

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INTRODUCTION

Mobile television receives considerable attention in current debates on new media and communication technologies. Enthusiastic forecasts suggest an explosion in demand with more than half a billion customers subscribing to video services on their mobile phones by 2011 (ABI Research, 2006). However, in light of delays in the planned launch of services around the world and slower uptake by smaller numbers of users than many predicted, there is increasing scepticism about the hype surrounding mobile TV, as indicated by the theme of the opening panel of the Mobile TV World Summit (2008): “The death of mobile TV?”

The technology is mainly at the trial and commercial launch stages. Its development will depend on technological, commercial, social, political, regulatory and other factors that are unclear; for example, the implications of the spectrum that will be released for mobile TV following the switchover from analogue to digital broadcasting in the UK, content protection technologies, licensing frameworks, and development of profitable business models. It seems pointless, therefore, to engage in speculation about how the new medium will evolve, how mobile TV *might* be used and how the industry *might* develop, but it may be useful to understand how this emergent technology is currently constructed and understood; what claims and assumptions are being made about its anticipated impact on viewers’ experience and its implications for the industry.

To this end, this paper explores current thinking about mobile TV, particularly how experts involved in the production, marketing, delivery and analysis of these services regard this emergent technology. The discussion is based on a review of published material on mobile TV (in English and Chinese), including industry and press reports,

conference proceedings, websites and online bulletins, academic studies, advertisements, results of mobile TV trials in Europe, the US and Asia, interviews with six industry and academic experts (Appendix 1), and attendance at two events involving industry experts (Mobile Meets Media, July 2006; The Impact of Mobile TV, November 2006 - Appendix 2). The aim of this review was to tap into contemporary debate on mobile TV and examine the construction of the technology.

The paper starts by defining mobile TV, before examining four concepts often exploited in public debate on this technology, namely 'TV in your pocket', 'TV anytime, anywhere', 'TV on the go' and 'Enhanced TV'. We suggest that these terms provide a useful entry point to contemporary thinking about mobile TV. They provide conceptual frameworks for the way mobile TV is understood; the promises and opportunities it offers, and the challenges it is seen as presenting to viewers and players involved in producing and delivering its services.

Debate on new media is often characterised by rhetoric about the novelty and potential of technology. The discussions on mobile TV demonstrate similar rhetoric: they are replete with both utopian and dystopian assertions about the technology's potential and novel characteristics. However, the accounts of experts involved in the production, marketing, delivery and analysis of mobile TV, reveal that their thinking about the technology extends beyond this rhetoric. It seems that at the heart of contemporary discussions on mobile TV is a tension between new and old. On the one hand, there is an emphasis on its newness as a cultural experience and a technological form, perpetuating claims about the distinctiveness and novelty of mobile TV and the *break* from familiar technological experiences. At the same time the novelty of mobile TV is continuously articulated in tandem with, and in relation to the 'old'. Industry experts, journalists and analysts frequently claim that mobile TV evolves from, builds upon and enhances existing and previous technologies and familiar social contexts.

The analysis in this paper examines this dual articulation of mobile TV, using Marvin's (1988) account of the tension between articulations of old and new in the social construction of the telephone and the electric light as a framework. One

observation particularly informs our analysis of contemporary discourse about mobile TV:

New media, broadly understood to include the use of new communications technology for old or new purposes, new ways of using old technologies, and, in principle, all other possibilities for the exchange of social meaning, are *always introduced into a pattern of tension created by the coexistence of old and new*, which is far richer than any single medium that becomes a focus of interest because it is novel (Marvin, 1988, p. 8, my italics).

We point to the competing claims made by experts charged with the production and construction of mobile TV and show how they construct the technology as evolving from and being introduced into this “coexistence of old and new”. The discussion seeks to enhance understanding of this new medium and how it is being shaped and understood in contemporary debate, an issue which has received little attention to date. In so doing, the paper aims to contribute to the broader field of research on the social construction of new communications technology.

WHAT IS MOBILE TV?

Different standards for mobile TV have evolved around the world, and the term refers to various technologies and forms. There are two main technological forms: streaming and broadcast. The former uses 3G networks to stream content to mobile handsets. ‘On-net’ streaming or unicast is how most mobile operators currently deliver mobile TV. However, there are capacity issues related to streaming, and it is unlikely to be suitable for mass-market uptake, especially in situations where large numbers of viewers want to watch the same programme simultaneously. Broadcast mobile TV, which includes various competing technologies such as DVB-H, DMB, BT Movio, DAB-IP, MediaFlo and ISDB-T, is expected to eventually dominate the market, primarily because it does not have the capacity constraints of streamed TV (Kaul, 2006).

In this paper, we define mobile TV as encompassing live simulcast TV on mobile devices, providing content similar to that broadcast on regular satellite, digital or cable channels as well as original content. This definition includes on-demand video,

i.e. clips that can be downloaded and broadcast to large numbers of users (Kaul, 2006). According to a report published in September 2007 “mobile subscribers exhibit a preference for on-demand videos to live TV delivered over cellular networks” (Mobile TV News, 2008).

This deliberately broad definition seems to represent the views of key players in the industry, for example, operators such as O2, and manufacturers such as Nokia. It emphasises that mobile TV builds on existing platforms, primarily TV, mobile telephony and the Internet.[1] This view is encapsulated by Nokia’s advertisement for its N-series mobile TV devices “Television in your hand”,[2] which shows a young man in a city, gathering up different media items. As he gathers up each item, it ‘shrinks’ in size:

A phone box –voiceover: “first it was the telephone”;

Billboard –voiceover: “then photography”;

Music note –voiceover: “music”;

Computer and TV screens – voiceover: “computing and e-mail”.

Finally, a public television screen showing a live football match shrinks in his hand to the voiceover: “now Nokia puts TV in your hand”. This notion of convergence and continuity with previous and existing platforms, technologies and user experiences, is central to how mobile TV is constructed and understood in contemporary debate – as will be argued below.

FOUR CONSTRUCTIONS OF MOBILE TV

‘TV in your pocket’, ‘in your hands’, ‘on the go’, ‘anytime, anywhere’ and ‘enhanced TV’, ‘beyond broadcasting’ (Meikle and Young, forthcoming), ‘delivering the future of broadcasting’ –are some of the terms and concepts being used to describe and market mobile TV services. They provide useful entry points into current ways of thinking about this emergent medium, particularly in relation to users’ experience and implications for the industry. We seek to unpack these terms to explore how mobile TV is shaped and understood in contemporary debate. We treat these discourses as constructions that make certain claims about the promise, opportunities and challenges of mobile TV – as content, form, experience and institution. The analysis examines how these concepts frame mobile TV as a novel medium, emphasising the sense of change and promoting claims about the new possibilities that the technology

enables, while at the same time, positioning the ‘novel’ dimensions of the technology in relation to features and experiences regarded as ‘old’ and ‘familiar’, thus emphasising a sense of continuity with the present and the past.

TV in your pocket

“Verizon puts your TV in your pocket” (Gwinn, 2007) was the title of an article in the *Chicago Tribune* on the latest mobile TV services. “A small, miniaturised version of the BBC Television Centre can be packed into the pockets of billions across the globe” wrote Philip Gould, a prominent British political adviser and Chairman and owner of the market research company Philip Gould Associates (Carphone Warehouse/LSE, 2006, p. 41). “Live TV in your pocket” is the title of T-Mobile’s project of digital TV broadcasting for mobile phone handsets, and is also used by Nokia to describe its mobile TV services (Nokia Press Backgrounder, 2007).

The concept of ‘TV in your pocket’ carries the promise of private and personalised viewing – the idea that users will be able to access TV content and consume it on their private personal screens, in an environment that for them is most convenient, comfortable and relevant. New media’s potential for personalisation, is, as Kennedy (2008) observes, a central trope in the contemporary thinking of academics, journalists, politicians and IT and creative industry workers. Discussions on mobile TV often include users’ direct experiences in order to emphasise the centrality of personalisation and demonstrate its appeal. For example, one of the very few academic studies of mobile TV (Sodergard, 2003) looks at users’ experience in Finland and highlights that the ability to view television in private was regarded by users as one of its best features. Findings from commercial trials with users (in South Korea, see Chipchase et al., 2006; Finland, see Finnpanel, 2005; Spain, see Mobile TV Forum, 20 February 2006; 11 May 2006; UK, see Lloyd et al., 2006; Mason, 2006) reinforce the significance of mobile TV as a private viewing environment in revealing that about a third of users watched mobile TV in their homes. Experts cite this finding (e.g. Mobile Meets Media, July 2006) to argue that mobile TV is used as a private personal screen, enabling users to avoid other members of the household, or to watch different programmes from what is showing on the home TV set.

A similar construction of mobile TV as enabling a personal private viewing environment is evident in the series of four video clips created by students in Germany, published on *You Tube*. The clips, by *Hosentaschenwelt Mobilerleben*, invite the viewer to 'enter' the private viewing of four family members on their mobile screens; in each clip the camera allows us to see through the individual's eyes - father, mother, son, daughter. These ads project the idea of mobile TV consumption as a highly individualistic, personalised and private experience, customised to the individual's preferences (the content) and context (time, place and situation). Commercial players in the mobile TV industry project similar views, exemplified in one of Nokia's press releases on mobile TV entitled 'The Future of Television will be Personal' (10 November 2006). Similarly, Philip Gould (referred to above), in a report commissioned by Carphone Warehouse/LSE (2006, p. 41) describes how mobile communication will enable people to become "their own personalised communications centre - with the power to receive news and to create news, to receive opinion and to transmit opinion."

This image is reinforced by the idea of customisation, which is often coupled with the 'pocketing' of television. Dr Anxo Cereijo Roibás (interview 2; Cereijo Roibás and Johnson, 2006), User Experience Research Manager at Vodafone, envisages that mobile TV will enable users to customise content to suit their contexts, interests and preferences:

I think the system should understand the context of the user, and the context in my opinion is obviously where he is, the time of the day, who he is, the identity and profile of the user. For example, I don't like sports so why should I get sports on my mobile? Or if I am in Brighton, I don't care about the weather in London – I don't need to see the weather in London [on my mobile TV screen] (interview 2).

These constructions of mobile TV as a 'TV in your pocket' that enables a highly personalised, individualised, and private experience, depict mobile TV as a medium that offers a very different kind of experience from current TV viewing. The notion of people becoming "personalised communications centres", whose mobile devices identify their location and broadcast appropriately customised content, seems to be

part of a futuristic rhetoric and imagery - what Kennedy (2008) describes as the rhetoric of the potential, the sublime or the mythical, referring to what the new medium *might* be. Underlying the current discussions of 'TV in your pocket', however, there is also a consistent attempt to emphasise mobile TV as a technology, experience and cultural form that is fundamentally connected to, builds upon, and continues existing structures, patterns of use and experiences.

While discussions of 'TV in your pocket' construct mobile TV in terms of its potential to radicalise our lives by making us "personalised communication centres", in perpetuating this rhetoric they are connecting mobile TV to other technologies that have been discussed in similar terms. Personalisation as the capacity to adapt mobile TV to meet the needs and desires of its individual users (based on Kennedy, 2008, p. 308), is described as an *extension* of the broader trend towards personalisation that characterises users' contemporary technological experiences, such as mobile telephony and the Internet. In response to the question 'What is mobile TV?', Harri Männistö, Director and Head of *Watch New* part of Nokia's Multimedia Business Group said:

The key word for us is personal ... the first marathon in this industry was basically about personal telephony, and in my mind what we are now basically starting is the second marathon, which is the personal TV and video consumption (interview 3).

Männistö sees personalisation as the distinctive feature of mobile TV. The notion of the 'personalisation marathon' is clearly associated with rhetoric of novelty, progress and change. However, fundamentally, Männistö (and more generally Nokia, which he represents and which constitutes a significant voice in current debate) locates this personalisation historically, in relation to what he calls 'the first marathon' of personalisation, that of telephony. Luca Pagano, Vice President and Director of the UK branch of mobile media and technology company, Buongiorno, has a similar understanding of the emergent technology. He claims that the mobile TV market and its potential success "have been driven fundamentally by the drive for personalisation", a drive, he argues, that characterises the mobile market more broadly (interview 5). Männistö's historical span is longer (he has worked in Nokia for over three decades, an experience which shaped his view of the personalisation

offered by mobile TV as an evolution of telephony); Pagano's point of reference is the mobile phone. Notwithstanding this, both accounts reflect an important acknowledgement that seems central to contemporary understanding of mobile TV: that the technology, with the significantly novel personalised and new experiences it enables, is fundamentally shaped by preceding technologies and user experiences.

At the same time, a trope in contemporary discussions of mobile TV, which challenges the emphasis on personalisation and the centrality of the individualistic experience of mobile TV consumption, is sociability. Mobile TV is constructed as a social tool that facilitates and enhances social experience. The Nokia 77 advertisement [3] is a good example. A man is depicted 'on the go', watching a football match on his mobile screen while leaving the house, walking along the street and travelling by train. He watches on his own, but shares the crucial moments in the game with people in the street and on the train. We also see two men watching together; the initial assumption is that they are watching a regular TV, but then it becomes clear that they are sharing the experience of watching on a mobile screen. The message is that rather than isolating people, watching mobile TV will maintain, and perhaps even enhance and enrich the social experience and the sharing of dramatic media moments.

Commentators in current debates on mobile TV sometimes cite the example of users collectively watching mobile programmes (or listening to music tracks), for instance, in the pub. Matthew Postgate of BBC Future Media and Technology Commissioning Team, describes this as an instance of users "turning mobile TV back into a social experience" (The Impact of Mobile TV panel, 10 November 2006). Although evidence of this pattern of use is mostly anecdotal, the examples are used to suggest that TV viewing on a mobile screen could actually have a strong social dimension.

Similarly, there are ongoing discussions about the development of 'mobile communities' (e.g. Mobile TV World Forum, 2005). In a recent forum in which users' experience of mobile TV was discussed (Mobile TV World Summit, 2008), the Director of Mobile TV Business Development EMEA at Motorola described the development of mobile user communities as one of "the 'convergent' building blocks of the ultimate mobile TV experience". The South Korean experience of fan

communities is sometimes mentioned in this context; these communities evolved around mobile TV programmes, involving interactions among users and with celebrities using mobile devices (interview 1).

These examples of the discussion on mobile TV show how, in parallel to ongoing emphasis on individual-based and privatised use, 'TV in your pocket' is also constructed as a social tool that will enhance social interaction and facilitate networking. The emphasis on the social dimension of mobile TV frames the new medium as an enhancement of, rather than a break from, one of the key functions of media and communications technologies, that of creating, maintaining and strengthening social relations.

TV anytime, anywhere

The concept of 'TV anytime, anywhere' highlights the release of viewers from one of traditional television's most significant constraints: the need to be in a 'place' with a television set, usually the home. TV anytime emphasises users' novel capacity to extend reach and range and to control, through their own volition, what content to consume, when, how and, where. Sodergard's (2003, p. 63) study, for example, shows that independence from the traditional TV set was one of the key benefits cited by users of mobile TV.

Sport, particularly live matches, is frequently cited as the ultimate content category where the ability to control when and where to watch television is crucial: "For anyone addicted to sport, this [mobile TV] could be a real drug" wrote a Canadian commentator celebrating this promise (Blau, 2006). Analysts reinforce the mobile TV promise of 'anytime anywhere' viewing by discussing events such as the 2006 Football World Cup, the 2008 Olympic Games in Beijing and the 2012 games in London. Fans are being promised that they can watch sport events on their mobile screens without the need to be physically close to a TV set (e.g., Economist Technology Unit, 2007; Luo, 2006; Pradhan, 2006; Qin, 2006).

The other element of 'anytime anywhere' is release from the temporal structure of the televisual experience, to an environment where viewing times and schedules are not necessarily relevant. This aspect, too, speaks to users' ability to control their viewing

experience, a promise encapsulated in one of the current buzz-words: ‘on demand’. The description of Sky’s mobile TV on-demand services exemplifies the message of freedom from broadcast schedules:

Sky Anytime on Mobile

The world of Sky in the palm of your hand

With Sky Anytime on Mobile, you can take Sky wherever you go. With news and entertainment straight to your phone, you'll never have a dull moment on the move. And if work or friends keep you out late, there's no need to miss your favourite shows – Remote Record lets you set Sky+ direct from your mobile! (<http://anytime.sky.com/mobile.aspx>)

This is typical of a discourse that champions novelty, progress and change associated with new media. At the same time, discussion of mobile TV’s ‘anytime anywhere’ dimension seems to recognise, and sometimes explicitly stress, that this feature constitutes continuity with previous technologies and user experiences. In particular, the ‘anytime anywhere’ promise delivered by mobile TV is depicted as a continuation of what TV has been associated with historically: release from physical places and times and the ability to ‘travel’ to far off places without having to physically journey. A comment made by T-Mobile’s Senior Product Manager, Phil Lehmann, neatly captures this sense of continuity: “The [2012] Olympics will be to mobile TV what the Coronation was to television” (cited in Peel, 2008). In comparing the terrestrial TV broadcast of Elizabeth II’s coronation with broadcast of the Olympic games on mobile TV, Lehmann highlights how mobile TV will ‘stretch’ time and space, not just at the level of representation (the content shown), which TV has historically enabled, but also at the level of the viewer, who will be able to view anywhere, anytime. Mobile TV promises to extend what TV can claim to have started: the ability to see things that are happening far way without having to be there physically.

Another sense in which mobile TV is constructed as extending (rather than breaking from) the experience associated with traditional TV, relates to the reassurance and sense of security to be gained from ‘anytime anywhere’ viewing. Much academic research has focused on the role of TV in how we manage our time: for example, the

ability to watch the news at the same time every day, gives a sense of control and confidence (Scannell, 1988; Silverstone, 1994, 1999). Discussions of mobile TV highlight this aspect, arguing the potential role of an ‘anytime anywhere’ portable TV in providing users with a sense of control and safety. Dr Leslie Haddon, who has been researching the consumption of TV and mobile communication technologies since the mid 1980s, reflects on this issue saying that:

[Mobile TV] will play a role when they [people] realise they forgot to set the video up. .. as a fallback. [...] Again and again people forget to set the video and although they phone someone at home, you know, my mother or somebody like that, and ask if you can do it for them, if they have their own portable television then that would be... *it would give them a feeling of safety* And also there’s a specific type of, if you like, soap [opera] where it’s perishable because you’re going to meet someone who’s going to tell you the ending and you don’t want to know it. You know, some of these things *you have to actually make sure you see it because it’s going to come out and everyone will be watching it in my circle!* (interview 1, my emphasis).

Similarly, commercial players involved in the production and delivery of mobile TV services refer to the sense of security and reassurance that viewers will gain from watching mobile TV. Melissa Goodwin, Vice President of Interactive and Telephony FremantleMedia Licensing Worldwide, and a regular speaker in mobile TV industry forums, recently discussed the important role of mobile TV in reassuring people that they are “part of”: for example, learning who has been selected to take part in a particular show, who has received accolades for best-performance, and catching breaking world news (Mobile Meets Media, July 2006). Goodwin did not explicitly compare the experiences of traditional TV and mobile TV viewing, but her emphasis on the potential significance of mobile TV in reassuring people that they remain connected and do not miss their favourite programmes is grounded in an understanding of the role of traditional TV viewing in this respect.

A Vodafone billboard advertisement for mobile TV services represents a more explicit attempt to emphasise a sense of continuity between the experience of watching mobile TV and the comfort and security associated with watching

traditional TV. A man is depicted sitting relaxed on a sofa, watching TV, but both sofa and TV set are on wheels, rolling along a train track. 'Be a potato train' is the caption, alluding, of course, to the ease and comfort of the 'couch potato' experience. The advert reflects an attempt to connote the comfort and ease of home viewing with the experience of viewing mobile TV. While the 'anytime anywhere' feature of mobile TV is constructed predominantly, if not exclusively, within a utopian narrative of users' freedom, control and empowerment, this Vodafone advert seems to address (quite sophisticatedly) an aspect that is rarely discussed: the potentially disruptive nature of this type of experience, and in particular, the idea that viewing is no longer anchored to the home, which is associated with comfort, security and control (Scannell, 1988; Silverstone, 1994). The message is that, with mobile TV, you can feel at home without having to physically be at home.

In this context, one of the most-discussed findings from commercial trials and pilot studies, is that about a third of the participants watched mobile TV in their homes, which runs counter to expectations that this technology will be used almost exclusively on the move. Although this finding has been a surprise to many telecommunication companies, broadcasters and manufacturers, they have used it as evidence of users' ease with the new medium, to argue that its usage fits seamlessly into their domestic and private, intimate environments. Press releases cite the example of participants that do not have a TV set in the bedroom, using mobile TV in their bedroom in order to relax (e.g. Finnpanel, 2005; Mobile TV Forum, 20 February 2006; Lloyd et al., 2006). Such messages are reinforced by visual advertising material, which shows images of mobile TV users watching in bed (e.g. see Nokia's website <http://www.mobiletv.nokia.com/resources/videos/>), in their living rooms (e.g. see Nokia's website <http://www.mobiletv.nokia.com/solutions/devices/>) and over breakfast in their kitchens.

TV on the go

Notwithstanding the attention given to the home as an important viewing environment, in current discussions on mobile TV, the predominant image is of outdoor environments, and situations where people are 'on the go'. This again positions mobile TV as a radically new experience compared with home and indoor viewing. Pilot studies and evidence from early adopters indicate three situations

where mobile TV use predominates: on trains, buses and other forms of public transport [in a UK study 39% of participants watched mobile TV while commuting (Lloyd et al., 2006)], in waiting situations, and in breaks - studies revealed that mobile TV was viewed during school breaks, breaks from housework, and in coffee and lunch breaks at work - usually in short bursts of 10-20 minutes of news or entertainment (HC360.com; Lloyd et al., 2006; Mobile TV Forum, 9 March 2006).

‘On the go’ promotes an idea of ‘lightness’ and easiness of use, as well as rapid consumption, like ‘coffee on the go’. This metaphor is extended by the concept of ‘snacking’, which frames users’ experience of mobile TV. Commercial trials and evidence from early adopters consistently show that the majority of users ‘snacked on’ between 5 and 40 minutes of mobile TV per day, with individual programmes being watched for periods of less than 5 minutes on average. A recent consumer study by the mobile TV and video solutions provider *QuickPlay Media* reported that: “Close to three quarters of U.S. wireless subscribers favor a mobile content ‘snacking’ paradigm over setting aside time for dedicated viewing” (Fierce Mobile Content, 1 April 2008). Analysts commonly draw on these findings to argue that people will ‘snack on’ programmes rather than watch full-length features on mobile TVs (e.g. Freid, 2006; Informa, October 2006; Mobile TV News, 10 March 2006).

The ‘snacking’ metaphor emphasises the difference between mobile and traditional TV viewing. The latter, despite its increasingly fragmented character induced by users’ tendency to ‘hop’ between channels and programmes, is still considerably associated with the ‘couch potato’ viewer who engages in a relaxed, prolonged experience of viewing a programme from beginning to end. By contrast, the central image of the mobile TV user who ‘snacks on’ content, is one of someone on the go, someone in a hurry whose viewing might be interrupted, and usually in an urban environment (see, e.g., Ok, 2005, p. 226; see also Nokia advert, fn 3).

This construction informs discussions about the content, format and genres that are being predicted to be suitable for, and popular on mobile TV. The central claim is that the content will need to be suited to ‘snacking’, that is, not designed to be watched from beginning to end, to accommodate limited attention spans and battery life. For example, a commentator at the *New York Daily News* writes: “you get to grab a quick

bite, and if you're interrupted it's no big deal (Osterhout, 2006). *QuickPlay* Media's VP of marketing, Mark Hyland, develops this idea, saying that

We're seeing the on-demand content model is a lot stronger than the broadcast model--consumers want bite-sized chunks, and the average user will even break up longer content into smaller chunks. Music-related content like music videos do well, as do local weather, news and traffic (Fierce Mobile Content, 1 April 2008).

In this context, there was some initial fascination with the concept of 'mobisodes', which are 'snackable' fragmented and small made-for-mobile episodes, originally developed by Fox. Fox promoted mobisodes as an innovative short-duration format suitable for bite-sized portions of content to be consumed on the go, mitigating the problems of staring at a small screen for too long. It first introduced mobisodes of its popular television TV drama *24*, and ABC followed with mobisodes of its hit drama *Lost*. These episodes followed the plot lines of their broadcast counterparts, but had their own scripts and casts. Alongside these spin-off programmes, some entirely new shows, for example, *Free Stylin'*, a programme created by Comedy Time, based on under-three minute mobisodes, were produced (Fitchard, 2006).

Recent reports show that the popularity of the mobisode format has been limited (e.g. Arthur, 2007), but interest in the notion of 'snackable' content persists, evidenced in ongoing discussions on the question of what genres will suit the mobile screen. Many see news as a relevant genre for mobile TV, because of the ability to watch events as they occur, but also because of its inherently fragmented format, that is, the fact that news programmes are collections of short items, and do not have to be watched from beginning to end. The expectation that news will become a leading viewing category on mobile TV drives, and is driven by, global news players such as CNN, who recently launched a mobile TV service as part of its broader *CNN Mobile* activities. It offers "a searchable archive of 14 days and over 2000 stories...with breaking news alerts and video news updates through the hourly updated 'World News Now'"(Fierce Wireless, 2007). Some broadcasters, such as China Unicom, have experimented with shorter and more concise news programmes than those shown on traditional TV, e.g. made-for-mobile news that lasts only one minute (Bai, 2005). Other genres being

discussed as popular viewing categories based on current use data and commercial trials, include reality TV, music and animations. Reality TV is seen as potentially suited to mobile viewing because its fragmented format does not require total concentration. Music is thought to be especially suited to the small screen and 'snacking' by mobile users. Broadcasters such as MTV are already offering various mobile TV music products, and are planning the introduction of new services, such as subscription video-on-demand, which would allow consumers to request a certain number of videos to be streamed every month (Tom Erskine, *Mobile Meets Media*, July 2006). Animations are also seen as suitable for 'snacking' and would give audiences what MTV producers, Mikael Wulf and Anders Moregnthaler, describe as a "quick shot of adrenaline – something creative and fun which can be enjoyed and used while on the move" (Fitchard, 2006).

While these discussions focus on developments in terms of new content and formats for the mobile screen, and although there may be some initial enthusiasm for made-for-mobile innovative content, evidence from early adopters and commercial trials indicates that the most watched genres on mobile TV and traditional TV are much the same - news, light entertainment, sport, drama and music. Furthermore, as examples such as Fox's mobile version of *24*, ABC's *Lost* spin-off mobile version, and ITV's *Big Brother* mobile TV version indicate, broadcasters (like other content providers, e.g. operators producing mobile programmes) are seeking to ride on the popularity of existing programmes and genres, rather than necessarily to create entirely new and different content. Thus, discussion of mobile TV within the frame of 'on the go' presents an important sense of continuity with, and enhancement of, previous media characteristics and user experiences. The slogan of the US mobile TV company mobiTV acknowledges people's fundamental attachment to traditional TV content, and encompasses the vision that mobile TV should provide familiar content and formats, but on the move: "That which moves you, should move with you".

Furthermore, the framing of mobile TV as 'TV on the go', implies experience of other 'on the go' technologies, such as mobile phones or MP3 players, which are used on the move. Users' consumption of mobile TV is depicted as a 'natural' extension and an integral part of, existing patterns of consumption of mobile media, especially in urban environments. For example, the Carphone Warehouse/LSE reports (e.g.

Mobile Life European Report 2007; Mobile Life Report 2006) refer to people's consumption of features of mobile TV as an integral part of users' experiences with their mobile phones[4]. Equally, viewing music clips on mobile TV on the move is commonly referred to as an extension of, or complementary to, users' consumption of music via mobile devices such as MP players and mobile phones (e.g. IFPI, 2006; Mobile TV News, 11 July 2006; interview 1, interview 2).

Thus, on the one hand the concept of 'TV on the go' emphasises the distinction between mobile TV and previous experiences of media technologies: outdoors vs indoors, viewing on the move vs static viewing, fragmented, often-disrupted 'snacking' of short-duration content vs relaxed viewing of full-length programmes. But, on the other hand, the 'on the go' construction alludes to other 'on the go' media experiences that users engage in and to existing genres and programmes that viewers watch on television, implying that mobile TV will extend and enrich, rather than disrupt them.

Enhanced TV

'Enhanced TV' refers to the ability of viewers to "interact with a TV show or extend their experience of a show by viewing more than just the linear broadcast" (Sky Interactive, 2007). Unlike the concepts discussed above, which are exclusive to mobile TV, 'enhanced TV' is a broader concept that encompasses other applications and TV-related features, with mobile TV regarded as one of its focal platforms.

A central trope in the construction of mobile TV as 'enhanced TV' is interactivity. This forms part of the broader (largely speculative) rhetoric about the potential offered by new media for interactivity as a way of engaging users, and tailoring of media objects and content to individual needs (Kennedy, 2008). In the press and at industry conferences the *Big Brother* reality TV show, produced by Endemol and sponsored by O2, is often quoted as pioneering the use of interactive voting in mobile TV content. Other examples that analysts use to demonstrate the provision of interactivity and support the assertion that users have an appetite for interactive features on mobile TV, is the mobile TV quiz show, *Millionaire*, which allows viewers to participate if studio contestants walk away from a question, and gives them the chance to win £1,000 (e.g. Grenville, 2005) [5], and a platform developed by Accenture that allows viewers to vote for football players, bet on final scores and

predict from where goals will be scored (Reid, 2006). MTV is a significant player that promotes interactivity as key to making content on mobile TV compelling. For example, MTV International's Commercial Vice President of Digital Media discussed in a recent Mobile TV World Summit (2008) how to engage viewers through interactive features, user-generated and viral campaigns.

That said, while there has been considerable fascination with innovative modes of interactivity that mobile TV could offer (Joint Mobile TV Group, 2006, p. 29) e.g. programmes that allow viewers to choose the actors and determine how the plot will develop, using SMS voting (China Economic Net, 2006), current developments focus on familiar interactive 'enhancements', such as voting (pioneered in *Big Brother*), competitions and quiz shows that involve viewers, and the provision of additional information related to the programme such as exclusive video footage.

Within discussions of interactivity, particular attention has been given to mobile TV as a potential platform for generation of users' own content. Mike Short, Vice President of O2's Research and Development and a regular speaker at mobile industry events, recently commented that: "Customers want to Show, Share and Shout. We've seen incredible interest from [O2] customers to share their content and show their interest in choosing the content they want to watch" (The Impact of Mobile TV, November 2006, see Appendix 2). Along similar lines, Dr Anxo Cereijo Roibás, User Experience Research Manager at Vodafone, entertains visions of "communities of nomadic users" that employ mobile phones to create and share multimedia content. He sees mobile TV becoming the ultimate tool for self-expression and providing users with sites for networking (interview 2; Cereijo Roibás and Johnson, 2006; Loi and Cereijo Roibás, 2007).

Operators such as O2 and Vodafone have developed platforms to allow users to 'Show, Share and Shout'. O2 launched the *Look At Me* service, which allows users to upload and broadcast their own generated videos from their mobiles to the Internet. These videos can be viewed by other users on their mobile phones, and each time a clip is downloaded the original content provider receives a payment of 3p (Mad.co.uk., 2006). Another example is *Soccer Addicts*, also available via O2, which features video content made by fans. Citizen journalism is seen as a particularly

interesting aspect of User Generated Content (UGC), which could be facilitated and enhanced by mobile TV, as exemplified in Philip Gould's statement in the Carphone Warehouse/LSE *Mobile Life Report 2006* (p. 42) that "there is now virtually no event that can happen on the planet that cannot and will not be recorded by mobile phones and then transmitted to the world. The mobile phone makes reporters of us all".

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However, currently UGC platforms are provided by operators, who are the key drivers of talk about the potential of mobile TV for the generation of user content, while traditional broadcasters seem to adopt a more reserved view about the suitability of mobile TV as a platform for generation of personal content. While broadcasters, across the board, seem to acknowledge that mobile TV should not just offer retransmitted regular broadcast content and that they will be required to develop new ways of engaging their audiences via the mobile platform - with interactive features a central element (e.g. Henry, 2005) - there seems less conviction that UGC is a feature that they would want or would need to offer users. A comment from Matthew Postgate, Commissioning Team at BBC Future Media and Technology, illustrates this view:

Culturally broadcasters are getting used to the idea that we're moving from a world of one-way relationship with our audiences to a two-way relationship... It is important that they [audiences] are given increasing control over the consumption of content. But I am not sure that this should be confused with something like *You Tube*...It's [about] letting audiences greater control in what, when and where they consume content, not the creation of their media (The Impact of Mobile TV panel, 10 November 2006).

So, while there is a lively discussion on mobile TV as a platform vital for the delivery of 'enhanced TV', views differ, sometimes quite substantially, about what enhancement and strengthening of relations with audiences via the mobile screen might involve. Generally speaking, operators seem to be promoting interactivity, users' content creation and content sharing as vital elements for mobile TV, while broadcasters, although endorsing interactivity as important, are focusing on content produced by them, and do not consider users' content to be a substantial aspect of their mobile TV programme developments.

CONCLUSIONS: THE PROBLEM OF NOVELTY

Debate on new media, led by academics, journalists, politicians, policymakers and IT and creative industry workers, is often characterised by a focus on, and celebration of, the novel and the future. Kennedy (2008, p. 307) argues that “despite the growing maturity of new, interactive media, rhetoric about its possibilities and potentialities that abounded in its earliest days still endures”. The debate on new media continues to be shaped considerably by the “language of the potential”, that is, what the technology *might* be and how it *might* affect users (Kennedy, 2008).

Current debate on mobile TV is no different. As this analysis has shown, much of the contemporary discussions on this emergent technology centre on its novel features: how it could change and revolutionise users’ experience, and how it could change – and quite radically - the practices of producers, such as traditional broadcasters. In particular, the rhetoric on the novelty of mobile TV and its potentialities focuses on four aspects. *Personalisation*, articulated primarily through the ‘TV in your pocket’ concept; *release from the spatial and temporal constraints* of the regular experience of TV viewing, encapsulated in the concept of ‘TV anytime, anywhere’; *fragmented, on the move ‘snacking’ of short-duration content in new formats* such as ‘mobisodes’, highlighted by the framing of mobile TV as ‘TV on the go’; and *interactivity*, seen as the main feature of a mobile ‘enhanced TV’.

At the same time, the analysis reveals that the rhetoric on mobile TV’s novelty and potentialities is paralleled with a continuous emphasis on the technology’s relation to familiar technological worlds. A central claim made by industry experts, journalists and analysts, is that mobile TV has evolved from, builds upon, and enhances the ‘old’. This claim is sometimes articulated in ‘the language of the potential’, that is, in an attempt to assert what kinds of technological experiences and features mobile TV *might* enhance. However, it also introduces a significantly different understanding of this new medium, that insists on a fundamental relation to previous experiences and technologies.

‘TV in your pocket’ alongside the emphasis on personalisation as mobile TV’s novel potentiality, suggests that these features constitute *a continuation of previous communication technology*, such as the telephone. Furthermore, a central construction

in the discussion of 'TV in your pocket' is of mobile TV as a social, rather than merely a personalised, tool – an *enhancement of the historical role of communication technologies of creating, maintaining and strengthening social relations*. Framing mobile TV as 'TV anytime anywhere' not only highlights what a radically new viewing experience the technology offers, but also how it extends the characteristics of the familiar TV viewing experience, specifically *the ability to 'travel' to far away places through the screen and to gain a sense of connectedness, security, comfort and reassurance*. The 'TV on the go' frame, alongside the ideas it promotes about the fundamentally new character of viewing television, stresses two significant elements of continuity with previous technologies. The first concerns *the genres and content categories that are predicted to be most popular on mobile TV*, which mirror those popular on regular television. The second refers to the character of *the experience of consuming mobile TV*, which is likened to, and associated with, how other mobile communication technologies are consumed.

Lastly, while mobile TV is celebrated by some as a focal platform for the realisation of 'enhanced TV', with a focus on the potential for interactivity and UGC, this rhetoric is continuously being balanced and challenged by different interpretations of 'enhancement'. Some see the enhanced features that mobile TV can offer as the *extension of developments already occurring in contemporary television*, in particular, the increasing control that viewers have over the content they want to watch and where and when they will consume it.

Thus, the discourse on mobile TV is characterised by competing claims from experts charged with the construction of the technology. Harri Männistö, Director and Head of *Watch New* in Nokia's Multimedia Business Group, has joked about how with so many new technologies being denoted by acronyms, 'mobile TV' is a friendly term, encompassing an acronym with which everyone is familiar. This neatly captures the centrality of the 'old' – a recognition of the significance of the familiar technological world of TV in contemporary understanding of mobile TV. At the same time, as discussed above, Männistö and other technologists involved in the production of mobile TV, are championing the novelty of the technology and the progress and change it represents.

This confirms Marvin's (1988, p. 232) observation that the opposition between the technologists, who are commonly regarded as "champions of novelty, change and progress", and the non-technologists, who critique the wisdom of a world that technologists have put in place, is false. Similar to Marvin's (1988) analysis of the discourse about communication technologies in the late nineteenth century, examination of the current thinking about mobile TV reveals that the experts involved in the production and delivery of this technology are highly attentive to the inherent tensions created by the coexistence of old and new into which it is introduced.

One explanation of the centrality of new/old in the characterisation of mobile TV relates to the particular trajectory of this technology to date. Since 2003, and especially from 2005, the hype surrounding mobile TV has increased, with various enthusiastic forecasts predicting an explosion in its use and mass adoption. However, in 2008, the technology has yet to live up to some of these expectations. For a variety of reasons the launch of different services around the world has been delayed, sometimes more than once. There is much uncertainty surrounding several issues that will affect the technology's development, including the establishment of sustainable business models, development and implementation of appropriate regulatory frameworks, and certain technological problems.

The various commercial players, including manufacturers, operators, broadcasters and market companies, that have invested heavily in the production, delivery and marketing of this new technology, are confronted by this uncertainty and must manage it. One way to do this is to seek to connect the new and unknown with the familiar; to promote an understanding of the emergent technology as evolving from familiar, safe, and comfortable technological and social worlds, to accommodate the new technological world by 'lodging' it in an old one. Novelty, Silverstone (1999, p. 12) wrote, "is never simple and rarely uncontradictory...Novelty is, therefore, the problem". This paper has shown that novelty is a problem not just for us as analysts engaged in critiquing the social construction of technology, but also for the producers and the experts that actively participate in its construction.

FOOTNOTES

[1] Some experts regard this definition of mobile TV as too broad. E.g., Spectrum Strategy expert, Alfonso Marone, argues that mobile video services, which are already available and popular at present, should not be collapsed into the term mobile TV (The Impact of Mobile TV panel, 10 November 2006) which, for him, refers to live broadcast services available on mobile devices.

[2] www.mobiletvforum.com/resources/videos/ (accessed 28 April 2008)

[3] www.mobiletvforum.com (accessed 28 April 2008)

[4] See, specifically, the reference to British people watching TV on their mobile devices on p. 17 in *The Mobile Life European Report 2007*, and Philip Gould's comment in the *Mobile Life Report 2006* (p. 41), on how "a small, miniaturised version of the BBC Television Centre can be packed into the pockets of billions across the globe".

[5] In the *Millionaire* programme each message costs £1, and reported figures showed averages of nearly 250,000 responses, suggesting the potential for serious revenues (Grenville, 2005).

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APPENDIX 1: INTERVIEW LIST

Interview 1 (6 June 2006): Dr Leslie Haddon, London School of Economics.

Interview 2 (21 June 2006): Dr Anxo Cereijo Roibás, User Experience Research Manager at Vodafone, previously researcher at the School of Computing, Mathematical & Information Sciences, University of Brighton, UK.

Interview 3 (28 June 2006): Mr Harri Manisto, Multimedia, Nokia.

Interview 4 (12 July 2006): Ms Maria Mandel, Digital Innovation at Ogilvy Interactive.

Interview 5 (19 July 2006): Mr Luca Pagano, Buongiorno UK.

Interview 6 (28 December 2006): Mr Alan Moskowitz, MobiTV.

APPENDIX 2: EVENTS

1. The Impact of Mobile TV (10 November 2006). *Nokia*. London: BAFTA.

<http://www.nokia.com/press/mobiletvreport> (21 May 2007)

Panel participants:

- Mr Matthew Postgate, BBC, Future Media and Technology division
- Mr Mike Short, O2, Vice President – Research and Development

2. Mobile Meets Media (11 July 2006). ‘Wireless World Forum’, Mariott Hotel, London.

http://www.w2forum.com/i/W2F_Round_table_Summit_on_Mobile_Meets_Media1

(21 May 2007).

Panel participants:

- Mr Tom Erskine, MTV Networks International, Commercial Director
- Ms Melissa Goodwin, Interactive and Telephony FremantleMedia Licensing Worldwide, Vice President