

Proceedings of

MOBILE ENTERTAINMENT: User-centred Perspectives

**25-27th March, 2004
Museum of Science & Industry in Manchester**

Edited by

Karenza Moore & Jason Rutter



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Contents

<i>Introduction</i> Jason Rutter	v
Part 1: Business, Markets & Regulation	
<i>Emerging and Future Mobile Entertainment Technologies: Drivers and Barriers in the Technology Evolution</i> Mika Ylianttila	3
<i>Innovative Entertainment Services in the Portuguese Mobile Communications Sector – the Examples of MobiComp and YDreams</i> Nuno Correia & Manuel Mira Godinho	19
<i>International Comparison of Mobile Entertainment</i> Sonja Kangas	32
Part 2: End Users and Consumption	
<i>Understanding Consumers’ Understanding of Mobile Entertainment</i> Karenza Moore & Jason Rutter	49
<i>Consumer Perceptions Towards WAP Games</i> Eusebio Scornavacca & Clarry Shchiglik	66
<i>Mobile Entertainment Users: Headline results from an online survey</i> Jo Bryce, Karenza Moore & Jason Rutter	86
<i>The Effects of Constant Touch on Consumer Behaviour: The Case of Iranian Mobile Users</i> Ali Saeidi	100
Part 3: Location-based Games	
<i>On the Streets with Blast Theory and the MRL: ‘Can You See Me Now?’ and ‘Uncle Roy – All Around You’</i> Duncan Rowland, Martin Flintham, Steve Benford, Nick Tandavanitj, Adam Drozd & Rob Anastasi	115

<i>‘Gangs of Bremen’: The First Prototype of a Mobile Game</i> Jochen Hahn & Katja Fahrenholz	125
<i>On the Development of a Mobile Play Mechanic</i> Barbara Grüter & Anna Mielke	133
<i>The Design History of a Geolocalized Mobile Game: From the Engineering of Displacements to the Engineering of Encounters - A case study of the development of a mobile game based on the geolocation of terminals</i> Christian Licoppe & Guillot Romain	149

Part 4: Innovative Services

<i>Stay in Contact – ‘Landlordz’ Strategy Online Gaming for Mobile Platforms</i> Michael Coldewey, Helmut Eirund, Peer-Oliver Görke, Christian Hein, Marcus Knittel, Thorsten Wittwer & Hans Voitke	183
<i>Mobile Phones and Football Fans: Technology, Services and Markets</i> James Orwell	195
<i>Designing an Auditory W-LAN based Game</i> Rikke Hadrup, Pelle Svane Jakobsen, Mathilde Schytz Juul, Dan Lings & Ásta Olga Magnúsdóttir	207
<i>C Space an adaptive, user led communication service exploiting the convergence of DVB-T and UMTS in portable devices</i> Leon Cruickshank	218
<i>A Content Personalization Engine for Mobile Device Games</i> Danielle R. D. da Silva, Alexandre L. G. Damasceno, Börje F. F. Karlsson, & Geber L. Ramalho	231
<i>The Future of Ubiquitous Gaming</i> Anxo Cereijo Roibas & Riccardo Sala	244
<i>‘Be a Freeporter!’: Enabling a Mobile News Publishing Community</i> Tom Nicolai, Nils Behrens & Heidi Thielemann	254

Part 5: Posters

Conceiving an augmented reality, through the tone of mobile data, the proximity of its users and the poetics of environmental communication

Adam Cooke

273

Understanding Consumers' Understanding of Mobile Entertainment¹

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Abstract:

This paper looks at the consumer perception to developments around mobile entertainment. After providing a brief overview of the current state of the mobile and mobile entertainment markets this paper details focus group research undertaken in the UK, Sweden, Finland and France involving actual, potential and non-users of mobile entertainment. It highlights six recurrent themes emerging from the research: 'Clarity', 'Compactness and Coolness', 'Complexity', 'Convergence' – the four Cs - and 'Access and Affordability', 'Age and Context Appropriateness' – the two A's . Moving away from the digital optimism of commercial market analysts the authors argue that there is utility in understanding consumer perceptions of the use of current and future technologies and micro-level behaviour in order to inform planning and foresight at a macro level. Implicit throughout the paper is a belief that a particular focus of users' understandings and practice had significant value in supporting development and implementation of mobile entertainment.

Keywords:

mobile phones, mobile gaming, mobile entertainment, 3G, consumer research, users

Introduction

The mobile phone is now firmly embedded in consumers' everyday lives throughout Europe and in many states has become a near omnipresent technological artefact with ownership outstripping that of landline phones. During this process of diffusion and assimilation the under-thirty market has demonstrated regular and heavy use of SMS and mobile phone calls and are currently being seen (along with premium rate business users) as the potential economic saviours of European mobile telecommunications faced with unusual economic circumstances:

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In April 2000 the UK government happily received £22.5 billion from the auctioning of third generation (3G) spectrum licenses for the next generation of mobile phones. Similar auctions shortly afterwards in France and Germany netted the respective governments £12 billion and £32 billion. Despite Finland and Luxemburg allocating licences for free, about £220 per person throughout Europe was spent on the battle to control slices of the mobile phone airwaves.

The problem is that this feeding frenzy has to be paid for. In September 2002 in Germany Mobilcom came desperately close to bankruptcy and in March 2003, Graham Howe, the deputy chief executive of Orange, said that he did not expect 3G services to become a mass-market proposition for another 3 years. As such, throughout Europe mobile operators are searching for new ways to catalyse sales of new handsets, increase the amount consumers spend on profitable data services and, at least partially, recoup these considerable sums of money spent on 3G licenses. 'Mobile entertainment' (ME) - which includes not only gaming but also gambling, adult services, music and location based services - is recognised as the most promising fillip for the industry.

There is perhaps some rationale behind such optimism: In the United Kingdom alone 1.65 billion chargeable person-to-person text messages were sent in January 2003 across the four UK GSM networks ('SMS text messaging hits all time high in the UK', Mobile Data Association, 2003). SMS signals a success story for the industry, supporting as it does peer-to-peer communication but also mobile information and entertainment services such as news, sports, weather, horoscopes and downloadable ring-tones and icons. Anyone who has spent time watching television in Europe throughout the last few years can hardly have missed the way in which programmes such as Big Bother, Pop Idol, I'm a Celebrity, Get Me Out of Here, etc have involved viewers and generated income through SMS voting.

However, it is a long leap from SMS to assuming that mobile entertainment more broadly understood will become a successful market across Europe. While much commercial research has, unsurprisingly, been enthusiastically optimistic about diffusion of technologies and use of ME services some analyses make sombre reading for the industry. The Wireless World Forum (W2F) argues that it is unlikely that MMS will match its hype and become as widely accepted as SMS. Despite upgraded capability of colour, audio and graphics, W2F maintains that a migration of users from SMS to MMS is improbable ('Multi-Media Messaging 2002: The Big Picture', W2F, 2002). W2F's results are based upon statistical data and interviews with wireless industry executives which prompts the question, 'what do consumers themselves think about the adoption of mobile entertainment?'

Such information is useful because it facilitates the informed development of new devices and services to meet consumer needs as well as highlighting areas of consumer knowledge and expectations which will need addressing by providers. As such the analysis contained within this paper aims to provide a useful

exposition and understanding of the practices and discourses which users bring when engaging with Mobile Entertainment. To do this the paper draws upon a series of focus groups with a diverse range of consumers from Britain, Scandinavia and France which we undertaken during 2003.

'Does this count as entertainment, what I'm doing now?'

A primary difficulty we face when researching mobile entertainment is that of definition. As the above quote from a focus group with young French consumers demonstrates, it is not always clear to consumers exactly what 'mobile entertainment' is. The problem of producing common understandings of what mobile entertainment has been previously highlighted by the Mobile Entertainment Forum (MEF) when stating that '[t]wo different industries make up the mobile entertainment industry: entertainment and telecommunications. Mobile entertainment is created as the convergence of both industries. Each of these worlds speaks a different language, and holds different assumptions about the nature of its work' ('Terminology of Mobile Entertainment: An Introduction', *MEF*, August 2003). If industry specialists have difficulty in agreeing the parameters of mobile entertainment what do current mobile consumers make of it?

Recent research demonstrates that many consumers are unclear about the mobile entertainment and related wireless technology options available to them. For example, a Packard Bell-sponsored survey of nearly a 1000 British home PC users found that 70% of respondents did not know what Wi-Fi was ('Knowledge of Wi-Fi Hotspots' *MORI*, April 2003).

Elsewhere (Moore & Rutter, 2003) we have defined mobile entertainment as 'any leisure activity undertaken via a personal technology which is, or has the potential to be, networked and facilitates transfer of data (including voice, sound and images) over geographic distance either on the move or at a variety of discrete locations.' While perfectly workable, in certain ways we might regard our definition as overly technology-centred: The social aspects of mobile entertainment are hidden within the phrase 'any leisure activity'. However, it is vital to see ME as an activity embedded within user routines, 'inconspicuous consumption' (Shove & Warde, 2002) and the technology of everyday life in order to gain an understanding of the domestication of technologies. A lead here can be taken from the way Schroeder (2002) looks at the role that cars, television, and telephones have played in increasing 'the diversity of leisure and sociable activities in industrialised countries' (2002:2). He warns of a common misperception with regards print, communication and transport technologies:

It is not primarily that new print media provides users with the (instrumental) means of access to a wide world of knowledge, or that cars and other forms of transport provide the means to get places more quickly. Instead, reading and driving become leisure activities in themselves' (2002:5).

We believe that this is true of mobile communication technologies. The focus of this study is mobile entertainment, namely using entertainment services such as mobile games, as a source of entertainment (that the industry hope will prove profitable). It is worth remembering that for many consumers the mobile communication device represents a leisure activity *in itself*. This is borne out by the popularity of SMS, of downloading ring-tones and of the e-mail/chat functions of the mobile Internet (Sidel and Mayhew 2003). For an industry concerned with developing and marketing new innovative mobile entertainment services, it may be difficult to consider the communicative functions of the mobile device as themselves a leisure activity amongst consumers. However, participants in our focus groups often emphasised the importance, above all else, of mobile devices as communicative devices. The use of mobiles has become a leisure activity to rival others in contemporary social life.

The paper below is divided into six main sections each of which addresses a key theme that emerged from focus group research. Below the themes ‘Access and Affordability’, ‘Age and Context Appropriateness’ (the two As) and ‘Clarity’, ‘Compactness and Coolness’, ‘Complexity’, ‘Convergence’ (the four Cs) are looked at in more detail, whilst we highlight their significance for the current and near future success of the mobile entertainment industry in Europe.

Theme 1: Access and Affordability

This theme predominately relates to European consumers’ *willingness to pay* for mobile entertainment products and services. If European consumers are to take up mobile entertainment with enthusiasm then it has to be not only financially viable for the industry players to develop and run, but also financially viable for the consumers to access. The focus groups we ran with younger consumers for example demonstrate that whilst some potential young consumers may find the technologies and services on offer extremely ‘cool’ they often viewed themselves unable to afford them - at least in the near future. Within the focus groups the range of responses varied from being unwilling to pay for services at all, to being willing if they thought it would add to their enjoyment of leisure activities, and if the service was not too different from what they already use and already pay for in other contexts. Here the participants discuss downloading mobile video clips,

(1) Swedish Group 2

Emma: ‘I buy movies so I would be prepared to pay for it’

Steffan: ‘I think I’m prepared to do that. I’m prepared to pay a set fee, but I don’t want to pay for every single movie download’

Here we see that previous experience of paying for an entertainment service through different technological medium (video, DVD, Internet downloads) acts as a comparative precedent for these consumers. Some participants stated that they were highly unlikely to pay for mobile entertainment services, highlighting either their financial situation or their general attitude to finances as the key reason,

(2) Swedish Group 1

Yvonne: 'I'm so cheap, you have to pay for most things. Bah! Who needs it? If it costs money, forget it'

Other participants expressed the concern that whilst network and service providers may currently offer mobile entertainment 'freebies', charges would eventually be levied and thus it was not worth getting used to having the service,

(3) Swedish Group 1

Brittas: 'But then they are bound to charge for it later, that's what's bad about it'

One of the difficulties with being willing to pay for ME services was that some consumers argued that any money spent of ME would diminish their ability to pay for mobile communication services (i.e. talk and SMS). Members of the focus groups described having to weigh up the consequences of playing a mobile game in terms of their spend on voice calls at another point in time. Whilst consumers may express a willingness to pay for mobile entertainment services in the 'abstract' sense, in practical terms, that is in an everyday context they constantly make choices about the importance of spending on one service against another.

This point belies the fact that statements of willingness, or unwillingness, to pay may not always be a clear indicator of behaviours and attitudes. Willingness to pay needs to be put in the wider context of consumers' general perspectives on mobile entertainment, and also be linked to other dynamics such as whether the consumer thinks that the service 'fits in' or is appropriate to his or her life. Some focus group participants for example noted that whilst young people may use mobile entertainment services, they did not really regard them as 'appropriate' for their stage of life,

So *access* goes beyond the *willingness to pay* and *affordability* for certain entertainment services. Within the European context, our research also relates to who can (and cannot) access services provided through mobile devices, services that may be of particular benefit to certain groups in society. Older consumers for example, a social grouping often neglected within the industry and consultancy literature, demonstrates their interest in some mobile entertainment services, whilst highlighting that certain physical difficulties (such as screen and button size) prevented them from enjoying interaction with these technologies,

(4) UK Group 4

Fred: 'I can't see that. I mean I can see the buttons but I can't see what it does'

(5) UK Group 4

Jackie: 'I just can't see them. I wouldn't be able to use that'

(6) UK Group 4

Sally: 'I can't see the symbols. Can you see the symbols?'

Florence: 'I'm really struggling. I can see that's red'

Sally: 'Is that red? Oh this is awful isn't it?'

Florence: 'You can keep this one'

The indication here is that even if older users are interested in mobile entertainment services they are effectively designed of the market. It is not that the older users were unfamiliar with digital technologies - all the respondents had, and used, mobile phones, although primarily for emergency use. Indeed a number of the older consumers spoke about their familiarity with digital cameras and their use of the Internet with a notable level of familiarity:

(7) UK Group 4

Jackie: 'Oh it's like a digital camera isn't it? We're getting handy with it. That's quite easy I can figure that one out now'

(8) UK Group 4

Gladys: 'Can't you download it [the picture]?'

Florence: 'Yes you could send it to your own e-mail'

Gladys: 'Can't you take out your SIM card and connect it up to your computer?'

Florence: 'Well that one you can do that but with those two you can't'

Even if many older users indicate low usage patterns, this does not have to be taken as a given in terms of possible future-uptake of mobile entertainment services amongst this age group. The main difficulty is that older participants felt that the services on offer were aimed at younger users (such as mobile games) and subsequently had little relevance to their own needs and interests. In terms of improving access to mobile entertainment services for older segments of the population we suggest that device designers need to consider the needs of different user populations, and that content providers need to think about what entertainment services would be of interest to older users. We suggest that in terms of the establishment of mobile leisure interest groups and communities the mobile entertainment industry would do well to explore the needs and interests of a range potential users.

Theme 2: Age and Context Appropriateness

Rather than concentrating on access in financial terms, or the specific requirements of older users in terms of access, this section focuses upon access in *cultural and moral terms*. Who, for example, do research participants think should and should not have access to certain services? What for example, were their concerns about under-age access to certain services such as mobile gambling and pornography? In terms of mobile gambling, the main concern was over people who were already cast as 'vulnerable' to gambliig compulsion or

'addiction'. Here we see a classic debate running between the idea of protecting people and the idea of letting people make their own choice as to what they spend their money on,

(9) Swedish Group 2

Daniel: 'I don't think it will increase the number of gambling addicts'

Mats: 'I do think so'

Daniel: 'What's the difference? They still have to pay the same amount'

Fredrik: 'Those that are addicted to gambling don't think like that'

Stefan: 'It's the same thing with those Internet casinos that are available. I think the service itself would work just fine, the person who offers it would probably earn a lot of money on it because I think people would use it a lot'

Access to adult services was of great concern to focus group participants. For the most part respondents expressed the belief that such services would 'inevitably' become available on mobiles and would undoubtedly be profitable for the mobile entertainment industry. Respondents voiced the view that if a demand for a service exists it will become available. Comparisons were made between the possibility of mobile adult services and the current situation regarding pornography on the Internet.

(10) Swedish Group 2

Nivva: 'The porn industry is ugly and I think this would work in the industry's interest. Porn is very popular so I think you can earn a lot of money on it. Porn WAP sites. Look at what you can download today. You can download a lot of stuff. I don't think you will download a whole porn movie on your phone. I hope that no-one watches porn movies on the bus'

Context appropriateness also relates to some of the main and recurring concerns that consumers voiced about the social acceptability and mobile 'etiquette' when using mobile entertainment services in certain public contexts. Our data suggests that there are a number of social rules with regards appropriate usage. Rules that are likely to adapt to the availability of new mobile entertainment services:

(11) Swedish Group 2

Nivva: 'Games are always boring when you are sitting next to a person that plays games and you hear all those noises. I just hate that'

(12) Swedish Group 2

Nivva: 'I hope that no-one watches porn movies on the bus'

Exploring context appropriateness allows the exploration of where and when consumers thought they would use mobile entertainment services. The notion of 'killing time' with these services came to the fore in the focus groups,

(13) Swedish Group 2

Steffan: 'When you are travelling you can listen to music but not necessarily download it...when you need to kill time'

(14) Swedish Group 1

Yvonne: 'When the subway's late'

(15) UK Group 5

Silvia: 'In waiting situations'

In addition, respondents spoke of other situations where mobile entertainment services become a solution to a perceived problem, or where they could be used to heighten the enjoyment of a leisure activity in which they are already engaged.

(16) Swedish Group 2

Nivva: 'I've been in situations where MMS would have been a good solution e.g. in a shop...am I going to buy this pair of shoes or not. It's a little bit of a luxurious problem though'

(17) Swedish Group 2

Nivva: 'When you're abroad. Instead of sending e-mails to your friends or scan pictures you can just send MMS...'

(18) UK Group 2

John: 'Like when you're out clubbing and you could send pictures to someone who couldn't make it'

The mobility of the device is seen as useful for game play or listening to music when killing time or escaping boredom at work. However respondents note that 'serious' game-playing or music listening may be better undertaken on a home computer or stereo system. This point relates to the ways in which mobile entertainment services need to be context appropriate in that they should be able to harness the benefits that mobility brings (otherwise, as participants argued, why not access services via fixed line Internet connection or play music on a stereo?)

The use of mobile entertainment services is not always linked to being in the public domain. Despite the popular perception of the mobile as something we use when on the move, Sidel and Mayhew's work found that the highest usage of the 'MobileNet' in Japan² was at home and work/school rather than when commuting,

² MobileNet is used as contraction of 'Mobile Internet'.

which was actually the least likely place for usage (2003:5). Their findings indicated that campaigns targeting MobileNet consumers should go beyond location and time considerations and instead focus upon the social, emotional and motivational contexts of users. Sidel and Mayhew convincingly argued that knowing how a consumer views her mobile may be more valuable to content developers and mobile Internet marketing campaigners than when or where she uses it.

Theme 3: Clarity

Our third theme proved to be one of the main concerns of the consumers we consulted and relates to the clarity of mobile entertainment billing systems. These concerns were not directly about amount charged for services but about not being able to decipher what and when they were being charged and whether they would be billed for a crashed connection to or download from the 'Mobile Internet'.

(19) Swedish Group 2

Fredrik: 'I disconnect. No I did not. I'm not disconnected'

(20) Swedish Group 1

Bjarne: 'MMS' it says here 'You have received an MMS, go to Telia to view it'...It says I have to surf to some website to view that message'

This second quotation exemplifies the confusion that consumers can experience about what they will and will not be charged for when using mobile entertainment services and who bears the cost of communication. If a consumer is unsure whether or not she remains connected, whether or not she is being charged will also be unclear. From focus group discussions it was apparent that some consumers felt a lack of control when using a 3G-enabled device, being uncertain whether a payment (say for a mobile game download) had taken place. This indicates that consumers need very clear feedback with regards to payment for mobile entertainment services to reduce such uncertainty that may interfere with their willingness to adopt.

Research on consumer perceptions of mobile payment systems is relevant here. Dahlberg, Mallat and Oorni (2003) for example argue that the issue of user *trust* needs to be explored in order to fully understand the ways in which (new) technology systems are accepted (or rejected).³ Following a series of focus groups with consumers they established that issues of security, trust and billing clarity were important factors with regards to mobile payment solutions. Unauthorised use, transaction errors, lack of transaction records and documentation, vagueness of the transaction, privacy issues and mobile device/network reliability were all

³ See Rutter (2001) for further discussion of trust in electronic transactions.

cited by their participants as major risks associated with such payment systems. If mobile entertainment is to become a widely used consumer good/service in Europe then industry players need to be fully aware of the concerns of consumers about the *clarity* and *security* of payment systems for such services.

As a theme, clarity also relates to the transparency of the services that are on offer, the ease of being able to differentiate between network operators and their respective services,

(21) Swedish Group 2

Steffan: 'I think they charge you for one day and then charge you for every piece of information you download'

(22) UK Group 5

Ellie: 'I want to be able to send stuff and use stuff not depending on which operator or phone I have. I hope that the involved companies will put effort in trying to make more compatible solutions'

Consumers want to be able to seamlessly send picture messages to friends and family members who happen to have different phones or who are on a different networks to themselves and they want to be told exactly what, when and how they will be charged for these services. Issues of clarity thus extend to the consumer's concern with not having to worry about cross-network transactions and complicated billing systems. Clarity of billing systems also relates to phone package personalisation. The consumers we spoke to were keen to see a variety of mobile entertainment service bundles on offer so that they could choose the one they perceived best suited their needs.

(23) Swedish Group 1

Sussie: 'It ought to be possible to buy those services as extras, games, if that's the main purpose, it ought to be a package, 'additional services'. *Those of us who don't want it can forget it*' (emphasis added)

(24) Swedish Group 2

Emma: 'You can call and buy a new ring tone so I think they should have a special service that you call and receive those services that you are interested in'

Theme 4: Compactness and Coolness

This theme explores everything to do with the physical (mobile) device itself, from interacting with it using a stylus to consumer concerns about adapting content to suit the screen size of new mobile communication devices. The compactness of a device was sometimes deemed a benefit (i.e. small enough to carry around discretely) but at other times viewed as a disadvantage (i.e. too small to be able to see images properly). This section explores these design tensions.

Theme four also deals with the ways in which consumers produced ideas of how mobile entertainment is, and could be, 'cool'. Research conducted with young people notes that something being cool carries importance to younger consumers (Mobile Youth 2002, 2003). What is judged to be 'cool' now may not be deemed as such tomorrow. It is vital for those within the mobile entertainment industry to keep abreast of the ever-changing landscape of youth cultures. Our exploration of 'coolness' includes a discussion of the ways in which consumers weigh up aesthetics and functionality/practicality. For example, many of the young people in our research considered photo-messaging applications to be cool but then went on to detail the difficulties they thought it does and/or could have.

In each focus group conducted we used three mobile devices to start the group discussions about mobile entertainment. We asked the respondents to perform a number of tasks on these devices, from taking a photo with the camera function to finding an entertainment news site. Many of the participants discussed the 'look' of the phones and aired their views about the importance of phone aesthetics. Whilst mobile content providers are understandably concerned with the quality and relevance of their entertainment services, we found that how 'compact' a phone is considered to be was deemed an important factor by the focus group participants in terms of how much they liked the device itself. Size was viewed as important, as was certain design quirks such as 'flip-top' phones.

(25) Swedish Group 2

Steffan: 'There are thousands of people who don't care about WAP services, they just want a good-looking small phone'

(26) French Group 1

Antony: 'Oh this is great'

Anne-Claire: 'Wow this is wicked'

Antony: 'Look at this display'

Davide: 'Yeah that's pretty cool'

Etienne: 'Oh this is amazing'

Antony: 'The display? The look'

Anne-Claire: 'I prefer the flip-top phones like that and there are loads of functions you see'

(27) UK Group 2

David: 'I don't like the Orange SPV. I don't like the bit on the end.'
[The camera attachment]

John: 'The screen's alright'

David: 'It's too big'

Carl: 'Yeah this one's thinner'

David: 'Yeah the camera on them is built onto the phone whereas that one you connect it onto it. It looks a lot better if it's built in'

However in terms of aesthetics, whilst (small) size was equated with ‘newness’ and desirability, the mobiles were often criticised for being *too* small and *too* compact, especially in terms of screen and key size,

(28) Finnish Group 1

Ville: ‘The screen should be bigger if you wanted to...’

Laura: ‘...go check your e-mail’

(29) Finnish Group 2

Leena: ‘It’s pretty hard to type messages with these keys’

(30) Swedish Group 2

Daniel: ‘Music is ok, but a movie? On this screen?’

Coolness is an ephemeral concept and we certainly do not set out here to pin it down. Yet it is worth noting that consumers, perhaps more so in the younger age groups, perceive ‘coolness’ of a mobile entertainment device, application and service as an absolute must when purchasing mobile-related products. The ring-tone, screen logo and facia market amongst teenagers is perhaps the clearest example of the importance of ‘coolness’, or in more sociological terms (sub)cultural capital (Thornton 1995), to the mobile market. The research consultancy Mobile Youth maintains that young people will spend a combined €13.4 billion on SMS, MMS, ring-tones and mobile java gaming during 2003, suggesting that this will rise to 20.1 billion Euros in 2006, an increase of 50% (Mobile Youth Report 2003). What is and is not deemed ‘cool’ very much determines what young people are prepared to spend their money on.

Theme 5: Complexity

Nieminen-Sundell and Vaananen-Vainio-Mattila (2003) note how designers of mobile user-interfaces (MUI) may either enable or discourage expressions in technology-mediated communication. Taking SMS as an example, whereby users are ‘limited’ to 160 characters, a whole culture has developed around this designed imposition, with new kinds of short hand being used to express commonly used terms such as CU L&R (‘See you later’). Indeed there are numerous Internet sites and books on the ‘art’ of text messaging (see www.txt2nite.com for examples). Consumers of mobile entertainment devices are subject to similar enablers and barriers when using MMS, taking photos with camera phones, playing mobile games, conducting downloads and so on.

In the context of the focus groups, consumers discussed what they perceived to be the limitations or enablers of mobile entertainment technologies and services. Developers who spend their time surrounded by these technologies may be surprised to learn about the difficulties that some participants experienced when attempting to access services for example.

(31) French Group 1

Etienne: 'This is bloody terrible. It really isn't fun. Bloody hell I can't work out how to get the sound working. *It looks ok but it really is annoying me*' (emphasis added)

(32) French Group 1

Davide: 'I think this one's bugged because you can see the video but you can't hear the sound'

Perhaps one of the biggest problems consumers encountered when using the devices we gave them in the focus groups was negotiating the menus. All the participants had mobile phones and so were familiar with mobile phone menus in general. As is clear from this selection of quotations, however, many participants found the menus and software related to mobile entertainment far from intuitive.

(33) Swedish Group 1

Bjarne: 'Lets have a look...here's Aftonbladet [a gossip magazine]...not under 'entertainment' anyhow, not where I ended up. Should they be under 'Entertainment'? 'New download'...what do they mean 'download'?'

(34) French Group 1

Antony: 'So what did you do?'

Anne-Claire: 'You hold it up and press that. You can save them too'

Antony: 'Oh ok'

Anne-Claire: 'Oh bloody hell. Now I'm still in the phone book. The menu...oh right you press that one in the middle. Oh right you come back to that'

(35) UK Group 3

'You have to go through so many menus to get to the games. At the main screen, at the top, it's got different pictures yeah, but it doesn't actually tell you what each of them are. You can get the obvious ones like messaging and calendar but the other ones...'

These consumers' frustrations link to research conducted under the Technology Acceptance Model or TAM (Heilman and White 2003). TAM states that users' acceptance of a (new) technology system will depend largely on their perceptions of it regarding *usefulness* and *ease of use*. In terms of ease of use, research has demonstrated that users' perception of 'fun' is closely linked to how easy to use they find the system (Kwon and Chidambaram 2000) i.e. the harder they perceive a system is to use, the less 'fun' it will be to use. Within our focus groups those participants who struggled to use the mobile entertainment devices, or became frustrated with their limitations, particularly in terms of the speed of connection, soon expressed their reservations about how fun such devices and services would be.

Theme 6: Convergence

Mobile devices in Europe are currently thought of first and foremost as a communication tool. However new layers of meaning are constantly being built up around mobile devices as new applications and services are added. For example, before the advent of SMS, mobile phones were viewed as a means to contact others via voice, but text messages have changed that. With entertainment services now being incorporated into mobiles, it seems likely that what we think of as 'a mobile' will change once again. This is already occurring with the advent of camera phones. However, the consumers we spoke to seemed reluctant to embrace the mobile phone as something more than a voice and text platform although it is possible that this perspective may change as we become more familiar with mobile entertainment and 3G services.

(36) Swedish Group 2

Emma: 'I don't need extras. I use SMS and the phone only as a communication tool. The most important thing is that it works well. I am very satisfied with it'

(37) UK Group 5

Frank: 'I think the mobile phone should be used mainly for making voice calls'

(38) UK Group 3

'At the end of the day it's a phone, not a camera'

Here we see how consumers are concerned about 'extras' such as mobile music interfering with the mobile's perceived primary use, that is a tool with which to keep in touch with others. However, this reluctance to embrace the 'extras' that new mobile entertainment services can offer may, for certain services, may not prove entirely durable. This is because a number of mobile entertainment services, in particular MMS, can be thought of, and perhaps should be marketed as, enhancing the perceived primary communicative function of the mobile. Accessing e-mail whilst on the move is another appropriate example here.

(39) Finnish Group 1

Ville: 'It [accessing e-mail] is pretty handy all right but a bit slow'

Susanna: 'Isn't it pretty handy?'

Rivta: 'Yes it is very handy'

Leena: 'No it's not handy'

Pauliina: 'Just because everything is shown as text only'

Laura: 'It's boring, it always looks the same'

Pauliina: 'Yes but it is, but then again you get to read your e-mail through it'

(40) Finnish Group 1

Moderator: 'If you had a gadget like this one, what would you use it for?'

Susanna: 'Photography, phone calls, and also for reading my e-mails...yeah maybe not web pages otherwise, but it would be ok to check your e-mail through that'

Consumers are willing to consider those services they perceive will enhance their ability to communicate and stay in contact with others. Recent research on the use of mobiles by young people that enjoy clubbing is another example of the ways in which mobile entertainment services could be used to enhance the communicative functions of phones. Research participants expressed their reliance on mobiles to maintain contact with new friends made while clubbing, and to keep in contact with friends that were unable to come out on any particular occasion. The camera function of new mobile devices, and the ability to send pictures between old friends and new acquaintances in MMS formats, was deemed fun and useful by the majority of participants in this study (Moore 2003). Mobile entertainment services may be used to enhance rather than detract from the communicative functions of mobiles, thus casting convergence in a different light.

Finally from our focus group data it can be surmised that some consumers remain reluctant to see certain new mobile entertainment applications and services as 'the real thing'. This involves consumers making (usually negative) comparisons between mobile entertainment applications and services and other currently available:

(41) Swedish Group 1

Emma: 'Me personally would not spend much money on it, I would *spend the money on a real camera instead*' (emphasis added)

(42) Swedish Group 2

Nivva: 'Then you say to yourself: 'I would like to see this movie tonight' then you download it to your mobile and when your back home you just transfer it into your computer and watch the movie. Otherwise you'll need to download the movie when you arrive home and it takes ages'

Staffan: 'The thing is it doesn't take time to download a movie nowadays so you can just as well download the movie direct to your computer. It will not be fast to download it to your mobile phone'

This perspective is at the crux of the issue of **convergence** and it remains to be seen how the European mobile industry will tackle the issue. Mobile communication devices will be viewed as a viable alternative to currently available technologies such as digital cameras, or they may become wholly convergent devices that replace uni-functional digital technologies such as MP3 players or portable game consoles. What is clear from our research is that for the

convergent model to work, consumers must perceive that convergent devices add values to services available to compensate for additional cost or quality of content.

References

- Dahlberg, T., Mallat, N., and Oorni, A. (2003) *Trust Enhanced Technology Acceptance Model-Consumer Acceptance of Mobile Payment Solutions*, Helsinki School of Economics, www.hhs.se/cic/roundtable2003/papers/D31_Dahlberg_et_al.pdf (Accessed 28 January 2004).
- Heilman, G., E. and White, D. (2003) 'On General Application of the Technology Acceptance Model', <http://mcb.unco.edu/pdfs/WPS/TAM-2.doc> (Accessed 28 January 2004).
- Kwon, H. S. and Chidambaram, L. (2000) 'A Test of the technology Acceptance Model: The Case of Cellular Phone Adoption', *Proceedings of the 33rd Hawaii International Conference on System Sciences*, <http://www.computer.org/proceedings/hicss/0493/04931/04931023.pdf> (Accessed 28 January 2004).
- 'Mobile Entertainment Forum Report: Terminology of Mobile Entertainment: An Introduction', *MEF*, August 2003, www.mobileentertainmentforum.org/pdf/GlossaryRelease_new%20logo.pdf.
- Moore, K. (2003) 'The Use of Mobiles in British Club Culture', unpublished research report.
- Moore, K & Rutter, J. (2003) 'Defining Mobile Entertainment' in mGain, *Mobile entertainment State-of-the-Art*, available at <http://www.mgain.org/MGAIN-wp3-d311-revised-final.pdf>. (Accessed 28 January 2004)
- Nieminem-Sundell, R. and Vaananen-Vaninio-Mattilla, K. (2003) 'Usability Meets Sociology for Richer Consumer Studies', in C. Lindholm, T. Keinonen and H. Kiljander, *Mobile Usability: How Nokia Changed the Face of the Mobile Phone*, New York: McGraw-Hill.
- Rutter, J. (2001). 'From the Sociology of Trust Towards a Sociology of 'E-trust'', *International Journal of New Product Development & Innovation Management*, vol. 2, no. 4, pp.371-385.
- Schroeder, R. (2002) 'The Consumption of Technology in Everyday Life: Car, Telephone, and Television in Sweden and America in Comparative-Historical Perspective', *Sociological Research Online*, vol. 7, no. 4. <http://www.socresonline.org.uk/7/4/schroeder.html> (Accessed 28 January 2004).

Shove, E, and Warde, A. (2002) 'Inconspicuous Consumption: The Sociology of Consumption, Lifestyles, and the Environment', in R.E. Dunlap, F.H. Buttel, P. Dickens and A Gijswijt (eds.) *Sociological Theory and the Environment: Classical Foundations, Contemporary Insights*. Lanham, Maryland: Rowman and Littlefield, pp. 230-251.

Sidel, P.H. and Mayhew, G.E. (2003) *The Emergence of Context: A Survey of Mobilenet User Behaviour*, www.mocobe.com/pdf/EmergenceofContext1.pdf (Accessed 28 January 2004).

Thornton, S. (1995) *Club Cultures: music, media and subcultural capital*, Cambridge: Polity.

W2Forum/MobileYouth.org (2002/2003) *MobileYouth*, www.W2Forum.com.