

Reach, Relevance and Relationship

The personal mobile channel in every consumer's pocket

Contacts:

Rob Bamforth
Quocirca Ltd
Tel +44 7802 175 796
rob.bamforth@quocirca.com

Clive Longbottom
Quocirca Ltd
Tel +44 118 9483360
clive.longbottom@quocirca.com

Vance P. Hedderel
dotMobi
Tel +1 703 485 5563
vhedderel@mtld.mobi

In a shrinking world where individuals have more choices in almost any aspect of their lives than ever before, and more ways to communicate with each other and the world at large, the bonds and inertia that held consumers and employees loyal to their suppliers and employers have disappeared. Markets are fragmenting, industries are converging, and relationships are more dynamic and fragile. So how do organisations build a connection and maintain an ongoing dialogue with their current and future customers?

The ubiquitous mobile phone has transformed the way people communicate, and as the most carried item of personal technology, offers a channel for extending the reach of any organisation. For the user it might also become the control hub for shifting actions constrained by time and place to somewhere and 'somewhen' more convenient.

So what do organisations need to do to address the opportunity to extend their reach, relevance and relationship? Here is an outline mobile action plan to start the thinking and planning process.

- **Build the mobile business case.** First look at the current business. Mobile is not something to be regarded as separate or different, but to provide additional reach, adding value to existing channels, and a way to communicate with customers, suppliers and partners. Think "remote extension" to something that's already there, rather than creating something new.
- **Identify target customer segments.** The default reaction is to target the young adult and teenager mobile segment, who have been the most prolific and widespread users. But there is a mass market with many separate communities of interest and different needs. Address the ones most valuable to the specific mobile business proposition, not simply the early or most visible adopters.
- **Route to eyeball.** Discovery - given the idea and the target audience, how will they find out? Establish a mobile identity or name and build it into all existing marketing communication plans to ensure that the message gets out. Seek out specialised portals, directories and listings that may help in the process. Work with the market players – operators, handset manufacturers, user experience aggregators – to get customer visibility.
- **Leverage existing expertise.** Most of the skills learned in the development of the Internet are transferable to the mobile channel, so when a mobile web site forms part of the plan, build on the open standards. Principles and tools that worked for the fixed Internet such as existing web and content development skills will extend known brand names into the mobile domain.
- **Localise, Specialise, Personalise.** Do what is necessary to be relevant in the short mobile attention span. Adapt content and services to the specific needs of mobile users, then take the next step of ensuring it is personalised as close to the individual as possible.
- **Build communities of interest.** Personalise to establish a point of contact and open a dialogue, and then broaden by creating groups, clubs and tribes who share a common interest. Use viral communication tools, such as 'send to a friend' or 'alerts', to encourage and facilitate interaction between users and the web site.
- **Learning as part-payback.** Establish a mobile proposition, test with users, and learn. In a rapidly changing market solutions evolve so learn by taking small steps rather than large ones or none at all. A few who take giant leaps into the unknown may be lucky and not fail, but many who do nothing will be left behind.
- **Measure the other facets of return on investment.** If the aim is to use the mobile channel to sell specific products or services, then increased sales is the ultimate measure, but make sure to measure the total value including the peripheral effects of customer brand awareness, appreciation and influence. Building relationships is a major benefit of mobile reach.

REPORT NOTE:

This report has been written independently by Quocirca Ltd to address certain issues found in today's organisations. The report draws on Quocirca's extensive knowledge of the technology and business arenas, and provides advice on the approach that organisations should take to create a more effective and efficient environment for future growth.

During the preparation of this report, Quocirca has spoken to a number of suppliers and customers involved in the areas covered. We are grateful for their time and insights.



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1. Introduction

The silicon age, the digital age, the wired world. Whatever the expression, the truth is that most aspects of the modern world are connected and depend upon communications technology.

The extent of the impact of technology on everyday lives can be noted in two ideas emerging from the IT industry. The first and most often quoted is Moore's Law, which derived from a comment made in 1965 by Gordon Moore of Intel. This states that the number of transistors per integrated circuit will double approximately every 18 months. The main impact of Moore's Law has been faster and cheaper computer components, spreading dramatic performance into the desktop and new capabilities for powerful mobile devices, including smart phones and handheld digital tools from cameras, to games machines and mobile music or video players.

The second idea, with perhaps a wider impact on adoption, is Metcalfe's Law. This was coined in the late 1980s by Bob Metcalfe, one of the inventors of the Ethernet standard for networking. He stated that "the 'value' of a network is proportional to the square of the number of access points in the network." This value is based on who has access to the available services, and depends upon standardisation for growth.

This became apparent with the Internet in the 1990s through the emergence of simple standards to direct and offer access to communications, information and commerce. It is now becoming clear that the mobile telecommunications industry is going through a similar phase with the growth in the number of handsets built with larger screens, faster connectivity and increased processing power. These phones are now capable of presenting and supporting sophisticated data, based on common standards and are therefore viable as general purpose access points for data services. This has a dramatic effect on the value of what was once simply a mobile phone because this pocket-able device has become the most carried item of personal technology. 'Keys, wallet and phone' is a common checklist for many people as they head out from their homes, and according to social research conducted by Nokia (http://research.nokia.com/people/jan_chipchase/index.html) this is also reflected in different countries and cultures. The mobile phone has the potential to be a remote control for access to all types of services and information. Still personal, but now far more powerful.

There are social caveats to the disproportionate rise in the value of a network, notably the sheer scale and ability of an individual to find something they are seeking, or that is of value. In the noisy networks of mass communication, intelligent direction is vital.

Other challenges exist. Security, over-complexity, spiralling cost of infrastructure investment, and limitations in the technology – battery life, screen or keyboard size, speed, availability and cost of connection – are all issues that need to be addressed, but in many parts of the world, industrial or developing, mobile phone penetration is high, and still growing. The mobile channel is becoming increasingly available for use to deliver information, interact with customers, make transactions, and even deliver products.

The usage and technology challenges are being addressed as the market evolves from isolated 'stovepipe' approaches and moves through open standards towards a common mobile Internet where everyone can participate. In the meantime sufficient solutions and technology exists for all businesses to build the mobile route into their marketing and channel strategies for reaching their customers.

The aim of this document is to outline how the mobile opportunity might be approached, the challenges to be aware of and establish a direction for companies to take. It is intended to be read by those tasked with extending the reach of their organisation to develop a more rich relationship with their customers, or find new ones.

2. The modern marketing communications challenge

Key Findings:

- More sources of information and entertainment has led to more fickle audiences with short attention spans
- Greater choice means a more diverse set of alternatives are selected and audiences fragment further
- Mobile offers a broad reach and the opportunity for an instant response, capturing audience attention

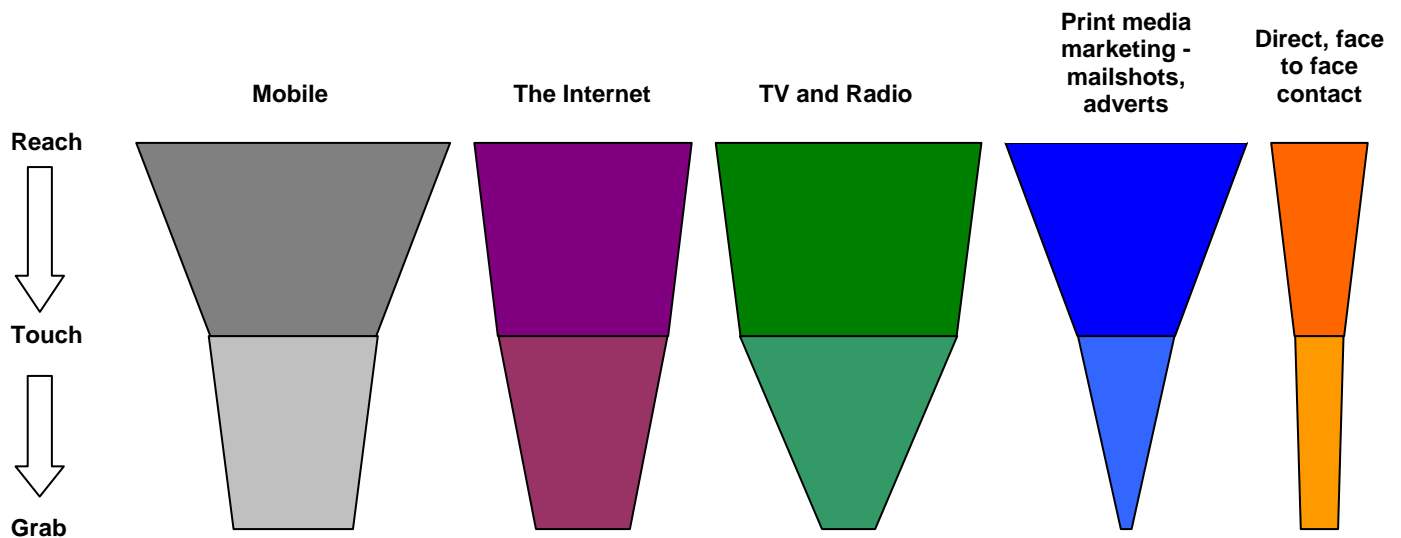
Many organisations face industry specific challenges, but there are consistent themes as all markets are influenced by the widespread application of information and communications technology. Remote and small organisations can compete on a more even footing, as the barriers formed by location and geographic separation are eroded. Businesses may find competition in local markets from the other side of the world, organisations with expensive retail store premises compete with those who access their customers remotely and more cost effectively via the phone and the Internet.

Consumers are now more aware of the widening range of options available, have an increasingly diverse ways of gathering information and a far shorter attention span. However brands and the customer service experience matter more than ever, so this poses a difficult set of challenges for any organisation:

- How to be seen to be offering a solution to a recognisable need rather than just products?
- How to strengthen and differentiate a brand in a world of too many choices? Concepts such as 'The Long Tail' (Chris Anderson, 2004) have made many suppliers realise there is an important market way beyond the best sellers. Gaining awareness for one new product in a mass of market availability is a huge challenge for suppliers and a complex decision making process for consumers.
- What demographics can be used to segment a target audience? Age, gender, nationality and social profiles based on job roles or income are becoming less valuable than lifestyle, aspiration and social profiles based on connections such as club membership and social networking along with stage in life. All of which are fuelled by economic and social flexibility, opportunities offered by new technology, and the rise of a throw-away, celebrity brand culture.
- How to reach different segments where individuals have shrinking attention spans? There are significant differences in media usage between audiences. For example in the UK, 16-24 year olds spend on average 21 minutes more time online and send 42 more SMS text messages per week than the general population. However they spend over 7 hours less time watching TV, and generally in shorter segments (Source: Ofcom, The Communications Market 2006)
- How to build relationships to engage, influence and build customer loyalty?
- How to encourage a long-term conversation to gather feedback, understand concerns and raise the level of customer service and satisfaction?

One way to quantify the influence or value a communications channel has for a given customer segment is to look at three aspects of the marketing communications link between supplier and consumer - reach, touch and grab – and see how these map onto the methods and channels available:

- Reach - how many have seen or heard the message or advertising material
- Touch - how many are affected, entertained, or stimulated as a result of the awareness
- Grab - how many are sufficiently engaged to respond, communicate or buy



With any communication channel, the numbers sufficiently motivated into action will always be fewer than those who were touched by a message, and these are still fewer than those the message reached. Face to face communication is often the most efficient and direct contact but it is always harder to cover the ground; a reason why many companies build a distribution channel to increase their reach.

For many aspects of mass communication, print is an established medium, well supported by an industry and easy to produce, but increasingly expensive to deliver to a large audience. Without interaction it also loses reader attention quickly. Even important materials such as bank statements or bills are prone to being lost in the noise as 'junk mail' as print media is so easy to throw away, although at some cost to the environment. Most critically, once produced the content is fixed and can not be updated, changed or corrected until a further print run is produced. For marketing purposes this is a considerable constraint.

The broadcast reach of television and radio with a pedigree for compelling and rich media content make these important mass market channels, but despite some degree of interactivity with digital and cable TV, few viewing audiences feel immediately engaged to respond, except perhaps by switching to another medium and making a phone call. The Internet adds interaction and through the use of broadband, an increased capacity for rich media and content, but still struggles to be globally inclusive due to the costs and complexity of owning a PC and paying for broadband connection. The costs of surmounting this 'digital divide' means that in developing countries, wireless high speed data infrastructure provision is often a more effective route than a copper wire or cable route.

The mobile channel provides the opportunity for instant response, from the widest potential audience. It offers not only broad reach, but also the potential for far more frequency of contact due to the personal and portable nature of the mobile phone. The real challenge is to make the connection between supplier and consumer straightforward and for the experience to be still sufficiently entertaining, engaging, affordable and worthwhile on a small device. Only then can they be used to start to reach those who still see mobile phones as just that – a mobile phone.

3. The state of the mobile market today

Key Findings:

- Mobile phone penetration is very high and many people are very comfortable with using voice and messaging services
- Internet penetration is high, and moving part of this experience to the mobile domain is seen as the next opportunity
- Several different methods are being used, no clear mass market leading approach dominates

Growth in mobile handset penetration has been astounding, with over 2.4 billion devices in circulation across the various mobile networks worldwide by mid 2006, according to the GSM Association. The number passed one billion in May 2002, and since then growth has been most significant in the population centres of emerging markets in Africa and the Middle East, regenerating economies in Eastern Europe and even certain areas of the Asia Pacific region. The numbers do not give a completely accurate view of the total numbers of users, as in some countries multiple handset ownership is common, and with active markets for refurbishment and re-cycling of handsets returned for upgrade, it is not clear how many devices are actually no longer in use.

The main use of a mobile phone is still voice communications but other services are important, in particular messaging. The value of mobile data as a whole for mobile operators has almost doubled in many countries between 2001 and 2005 according to the Ofcom International Communications Market report. In Japan mobile data represented 26% of total mobile revenue, in Germany 18% and in the UK 20% (Source: Ofcom 2006). Uses are varied, but the emphasis is still communication. Over half of all mobile households have sent or received an SMS text message, and over a third have sent or received email on a mobile phone (Source: Ipsos 2006). Access to the mobile Internet is also becoming of significant interest, as globally just over a quarter (28%) of mobile phone users have browsed the Internet at least once on a wireless handset at some point during 2005 (Source: Ipsos 2006).

The potential for crossover between mobile and desk bound Internet access is very encouraging for those with an interest. According to Nielsen/NetRatings web users on a global basis visit on average over 1400 pages per month but spend on average only around 40 seconds per page, showing some appetite for relatively short bursts of information. Although the Internet is shifting some viewers from their TVs to their PCs, the usage patterns are different with more channels of information visited, each for short periods of time.

In countries like the US, where over 55% of households had Internet access by 2003 according to the latest US Census data, interest in mobile Internet in August 2006 was growing with over 21% of mobile phone users very or somewhat likely to browse the web on their mobile device in the coming year, twice as many as those likely to view a TV or video clip. In the UK where mobile penetration is higher than the US and with similar levels of household Internet access, over 27% of mobile users indicated they are very or somewhat likely to browse the web on their mobile phone (Source M:Metrics).

Mobile phones are becoming sufficiently capable, subscribers have broad experience of Internet access at home and in the office, but more useful content and services are necessary to encourage adoption. How quickly this might grow is difficult to predict, but there is clear interest in staking a claim to addresses in the mobile domain. Businesses and individuals in more than 100 countries registered over 75,000 wireless Web sites with a .mobi domain name in the first 8 hours when registration was first opened to the public on 27th September 2006. Translating these points of access into useful services that will encourage users to initially try and then repeatedly return to mobile Internet sites is the challenge faced by the industry.

Current approaches

In addition to making voice calls, mobile phones are increasingly powerful mobile computing and communications platforms. They are able to assemble, transmit and receive complex messages and display rich media content – images, videos, music – presented in small but high quality screens. User interaction has extended from simple keypads to include tiny joysticks, thumbwheels, and touch screens. In many cases mobile phones have sufficient power to run more sophisticated applications – browsers, media players, games - some of which are pre-installed prior to delivery, some that the subscriber can download or install later. This opens up a number of ways to exploit the capabilities on handsets:

- Fully functional mobile applications provide a rich experience on the phone, taking complete control of the user environment and encouraging user interaction with sophisticated functions. While flexible and adaptable to any type of content or service, they are likely to only operate on a subset of devices, arbitrarily subdividing the customer segment. The complexity of delivery and installation to the handset must also be dealt with – either by pre-installation or over the air download.
- Web sites are often available on a phone through some form of mobile browser. Although most website content can be viewed, the experience is less than ideal for the mobile user. Some mobile browsers will automatically strip out or “render” content and try to present in a way that works on a mobile device. This still means a larger amount of information has been arbitrarily transmitted, tying up bandwidth and device performance. There is no regard for the specific application needs of someone on the move as the information was designed for a desktop interface which is not ideal for the mobile user. Designing mobile friendly websites specifically for the mobile user needs means a simpler, cleaner and more relevant experience, and can be based on existing web development skills and tools.
- Fixed Internet and mobile access can be complementary using full screen desktop web as a trigger and the mobile as the target for delivery. It can be simple to use, and works well as a way to ‘pre-load’ the mobile with some capabilities, but relies on PC access rather than a truly mobile experience. It also glosses over mobile incompatibility issues leaving users frustrated, and may elevate the “for free” attitude of the Internet, which does not help those looking to sell content or services. However, many of those with the most sophisticated mobile devices are likely to also be PC users, so this is an ideal route for initially directing them to a mobile opportunity.

- SMS messages and shortcodes (a carrier independent five digit number, typically leased to an organisation) are easy mechanisms that work on any mobile phone, with applications including voting, competitions, and other quick calls to action. They are simple to key in on a phone, but can be tricky to remember, and a mistake of one digit will miss the target. Even SMS is not universally available or always implemented in the same way. This will mean that a global marketing campaign will need to be segmented to deal with this complexity. Furthermore any delays or problems in the network will frustrate users, and it is difficult to add a lot of value other than to generate a response, although this may include a link to more content.
- Interactive Voice Response (IVR). The simple ubiquitous voice option is often ignored, or left exclusively for the call centre, but it can be used for prescriptive and routine processes. IVR works well for simple procedures and is familiar even to those who only use a mobile phone as just a phone, but the lack of feedback and visible navigation is limiting and can be confusing to the user.
- WAP portals, often run by the mobile operators – O2 Active, Cingular MEdia Net, Orange World, Vodafone live!, t-zones, MaujMasti!, i-mode - offer a flexible, easy to understand and easy to administer way of presenting menus and content. While they are likely to work on a large range of mobile phones, they have less functionality than a full mobile web browser, require specialised development effort, and despite the relative success of operator portals, overselling of WAP initially has led to a poor reputation among both users and content providers.
- Broadcast mobile services offer rich content and fall into two categories: long range requiring additional hardware, for example to pick up a television or radio signal, or those using short range connection such as Bluetooth hotspots to receive local information or services. Both approaches are in their relative infancy, but may provide additional channels to the mobile device over time. However, the broadcast model is dependent on the control of the broadcaster, which may divide up the subscriber base in a similar way to mobile operators, whereas an open network, like the Internet does not artificially subdivide its communities.

4. The rise of the mobile channel opportunity

Key Findings:

- The mobile channel considerably extends reach in fully established and developing economies
- Information or services at the precise point of need adds relevance to the relationship between supplier and consumer
- Services have to be specifically designed or made for mobile to be really effective
- The mobile phone is an instrument offering time and place shifting – a remote control – for other services

What's different

The mobile channel is an invention of the modern technological world, like broadcast media and the Internet, but unlike those forms of communication, the experience is more personal and related to the individual. While the Internet evolved beyond the broadcast mechanisms of mainstream media to offer a narrowcast approach that is connected to the individual, it is driven by consumer 'pull' and demand led connectivity mainly around the "what?"

The mobile experience has the potential to be more directly relevant to the individual, by answering three further types of question:

- When – by addressing timeliness and urgency
- Where – by providing location relevance
- Who – by personalising to the individual subscriber

To successfully exploit this channel it is necessary to understand what these questions mean to the mobile user and how they can be used to create the most compelling and valuable experience.

A new channel?

Why is there a need to use another channel? Organisations already have a number of methods at their disposal and although city street or even out-of-town locations are increasingly the more expensive option, there are other lower cost routes to reach customers through call centres and the Internet. However, the mobile channel offers some additional benefits:

- Convenience – at home, in the office, out travelling, or overseas, the mobile phone is the one consumer item of technology that is likely to be with its owner. The frequency and reach of contact available through the mobile channel is convenient for both supplier and consumer.
- Cost-migration for more expensive channels – services can be delivered right to the point of need wherever the user is, without having to build new infrastructure. The phone can act as point of sale, point of information, or point of service.
- Mass market – moving a channel online from the physical presence is an obvious step, but not everyone has convenient access to the Internet, whereas those without are likely to have a mobile phone.
- Phone penetration – this is so high that even when any other channels are effective at reaching consumers, the mobile channel is available as a supplementary or alternative route. If an airline needs to alert a traveller of a change in route or cancellation, the mobile route is more effective than sending an email, even if the original itinerary was communicated via an email.
- Developing economies – not all countries or locations have access to a fixed telephony or Internet infrastructure, or a well developed postal system. Coverage may be incomplete, as sometimes it is too expensive or difficult due to geographic, social or political instability and some countries are skipping the stage of fixed infrastructure altogether and going straight for a wireless connected society.

In all cases the mobile channel is an extension and a widening of current reach, not something that requires existing structures to be replaced or isolated. It is an alternative or supplementary channel and needs to be well integrated with other routes, and with the existing business processes. Many of the companies who failed with their projects or new businesses during the dotcom boom and bust were not brought down by their poor use of the technology, but by their inability to build their new Internet channel on a strong commercial foundation. The same will be true of companies who place the use of a mobile channel ahead of good business sense.

The user perspective

The ability to communicate on the move has become the most popular consumer utility service; hence the mobile phone is the single most carried personal item of technology, and finds its place alongside keys and wallet or purse as the items many people check are on their person before leaving their home. However even though it has evolved from the straightforward voice conversation telephone into a more sophisticated multi-purpose tool, the expectation remains that the user experience should be convenient, simple and practical. Additionally, those who pay extra to possess the more sophisticated phones will expect an enhanced

experience, not the lowest common denominator interaction that would be expected on a simpler, cheaper device. There is a set of underlying principles that all mobile services need to address:

- Useful Value – can the consumer recognise clear practical value associated with the content or service? It might be as intangible as watching a video clip or playing a game to alleviate micro-moments of boredom, or the fashion statement of the latest ringtone. Or it could be more quantifiable, such as the time saved by access to a map or directions on a critical journey.
- Worthwhile Cost - does the price match the perceived value? This will depend on the service, target customer segment and pricing strategy. Bundling of services and special tariffs often confuses and consumers rarely risk paying when the end cost is not clear. Costs need to be clear, upfront and meaningful.
- Ease of use - is it simple to discover, purchase and use? Mobile phone users do not have time, device functionality or inclination to cope with the challenges they have to endure on a desktop computer. Incompatible and difficult to use services will be discarded as consumers will often choose to stick with the tried and tested voice and text.
- Time or Place shifting - what activity will be replaced or permitted to be shifted in time or place? The uniquely mobile ability to conduct a remote service, there and then, means that other activities can be substituted. This replacement may be at the expense of another activity – text messages instead of phone calls, MMS messages instead of sending postcards - so if an alternative is too expensive or of poor quality, the risk is that the consumer will choose something else.
- Social Interaction - does it exploit social communication and interaction? The mobile phone is after all a communications tool supporting the human needs for company and contact. Any service needs to recognise and build on this value.
- Mobile Aware - does it understand the uniquely mobile needs of the user? They may have limited time at the moment of use, less concentration and the need for relevance, so offering something that works for other media, such as TV or the fixed Internet is unlikely to have appeal.

The Remote Control

The mobile phone is often referred to as the 4th screen for reaching consumers, after movie theatres, television and the personal computer. With each step - from movie to TV to PC – there is an increase in personalisation, interactivity and choice, with the increased complexity of finding what is available, alongside a continuing perception of a somewhat less sophisticated overall experience, although owners of very expensive media specific PCs may disagree. The mobile phone takes personalisation and interactivity a step further, adding the ability to shift the place or location where an activity must be performed to fit with the needs of the user. This ‘place-shifting’ is even more powerful for the mobile user than the ‘time-shifting’ offered by the video cassette recorder or personal video recorder.

This provides the opportunity for ‘made for mobile’ services that recognise the ancillary and supportive nature of the mobile phone, not as a competing alternative screen, but as a complementary add-on, allowing for place-shifting any number of services:

- Informative – presented in a mobile friendly way, respecting screen and user interface limitations, and designed to meet the information needs of a mobile user. Limiting what is presented to meet the mobile need – for example, displaying only current train times for a railway station, contact and location map information for a nearby retail business – the key here is for relevance not information overload.
- Entertainment – allowing the individual to “snack” on games or rich media content, like mobile TV and ‘mobisodes’ specifically targeted for the mobile device to alleviate those micro-moments of boredom.
- Control – need to change the answering machine message, forgot to set the video recorder to record a program, or making selections while out and about? With the right application the mobile can be used as a remote controller for other services.
- Relationship – it’s not possible to do everything face to face, and some things cannot be conveyed in a phone call or message. One wine bar chain offers a ‘buy me a drink’ service so that small favours can be repaid by sending a drinks voucher to the one who performed the favour, paid for remotely by the person who benefited.
- Transaction – scheduling a bill payment, placing a bet, making a share deal. The timeliness of making the transaction when and where the user needs mean that decisions can be taken on the spot, rather than delayed, postponed and perhaps forgotten.

This doesn’t make the mobile phone a remote control for another device, but for life in general. There are things that individuals need or want to do that often require them to be in a particular location, probably at a particular time or range of times. These are the ‘business’ processes of modern life. For example, when someone receives a domestic bill, the traditional approach is to put them in a pile in a study or household “to do” file, and process them periodically, taking the bill and cheque to the bank for payment. The current model of Internet banking removes the need to visit the bank, but the “life process” is still to collect a batch of bills to deal with them together. Mobile provides an opportunity for a re-engineering of the life process to deal with the issue at the individual’s time and place of need. That might be instantly, there and then, with no delay or risk of postponement, or held as a mobile ‘to do’ list, still kept close to the individual to work through at the time and place of their choice.

Mobile commerce

Beyond communication and information, the mobile channel provides an opportunity to sell products and services. There have been some successes, but as the Internet before it, once consumers have become comfortable with the security and integrity of the payment processes, the mobile phone offers a number of ways to extend into sales:

- Device personalisation – a significant market has developed around ringtones, wallpapers and other content that allow the users to identify their personality with their phones. As well as these personalisation features being sold by enterprising new companies, many other organisations are using the offer of free sounds and images for mobile phone users as a way to build brand identity and keep in regular contact with consumers.
- Mobile media and applications – the increased sophistication of the devices allows more interesting consumable content to be offered such as games, full music tracks and videos. It also allows more on-phone functionality, so that applications can provide something of value on the phone in isolation or as a mobile network extension of another service.
- Marketing tie-ins and promotions – in addition to actual payment, the mobile phone can be used as a trigger or to transfer other items of value. This may include money off tokens, invitation passes to a party, or even boarding passes. One way to simply tie this into printed marketing material is to use some form of code and exploit the built-in camera to decipher it to trigger further action. This has proved popular in Japan and South Korea with Quick response (QR) codes. There have been other ideas trialled around the world including circular barcodes or other forms of mobile readable tags, and barcodes that are returned to the phone from a mobile site as tickets or coupons to be read by another barcode scanner in a store or at a venue.
- The mobile payment intermediary – the mobile phone can also be used as a mechanism for making transfers between known accounts or micro payments for low cost goods, for example goods from a vending machine or parking metres. There are a number of approaches being trialled at various stages. Although it is possible to use the mobile phone bill for low value amounts, a number opt for a separate e-cash system, where a specific purpose pre-paid card is used in conjunction with the mobile phone. For example the C-mode system used in Japan for buying soft drinks uses a 2D barcode, the mobile phone and the C-mode Club card which has to be loaded with a cash value before use. There are also approaches being developed to access other online financial accounts or instruments such as PayPal Mobile, using the mobile phone as the access mechanism.
- General sale of hard good - this is more complex as the value of goods rises. Billing via the mobile operator raises regulatory issues if the amount exceeds certain thresholds, bringing in the need to encompass secure debit and credit card transactions. There is also the difficulty in linking the mobile channel to logistics and inventory systems of suppliers. This proved a challenge for many established retailers during the early days of the Internet and offered an opportunity for them to be outflanked by new, innovative companies with completely online presences, such as Amazon.

If the operator is not used in the billing process, such as in a solution where the mobile phone is used as a channel for a banking system credit or debit card payment, some of the regulatory issues diminish, but security and risk both to merchant and consumer have to be contained. If the commercial challenges are dealt with, the mobile channel could open up exciting new opportunities.

There are still challenges to address. The cost of sending data over the network has to be taken into account and borne somewhere. For some soft goods this cost may be high and if it lies with the user, they will need to see real benefit of making a purchase at that moment in time versus delaying and paying less via another route. For other goods, for example travel and parking tickets or vending machine products, the extra convenience might easily outweigh the small extra cost of making a mobile transaction.

There is also the challenge of exception processing for non-delivery, faulty goods and fraud. These commercial processes where there are risks to the consumer and supplier are not reliant on technology, but will have a significant impact on adoption if mistakes are made.

5. Challenges of the mobile channel

Key Findings:

- Users differ greatly and expect personal relevance - content has to be tailored to meet individual and market needs
- The mobile value chain is operator dependent but the fruits of success need to be more evenly distributed amongst content and other service providers
- The market should not be segmented arbitrarily by supplier powerbases or proprietary technologies, but to suit the needs of consumers

Different regions, different appeal

Mobile phone penetration is rising rapidly, faster than any other technologies in developing economies where a fixed communications infrastructure was either lacking in capability or simply not present. Current prices and market demand for raw commodities such as copper mean that implementing new fixed infrastructure will remain an expensive proposition and wireless communications of all types will continue to grow their appeal. There are geographic and environmental issues that exacerbate the differences between fixed and wireless infrastructure, such as mountainous terrain where it is uneconomical to deploy cables, or regions where temperature variation will cause cables to deteriorate. The value of copper as a sellable commodity also increases the risk of theft.

Often other prevailing cultural views or economic drivers have an influence on the rate and style of mobile adoption. The great success of i-mode in Japan, especially for messaging may have much to do with the previous poor penetration of PCs. In the US, the late entry of cellular networks and widespread business use of pagers coupled with long established all-you-can-eat fixed phone tariffs led to the early interest in email devices like the BlackBerry and also Instant Messaging, instead of the massive appeal of SMS elsewhere in the world.

Investment in high tech payment systems for transport and ticketing starting with smart cards has opened consumers' eyes to the potential for other forms of mobile commerce. South Korea, Austria, Finland and Hong Kong have led the way as the more advanced m-commerce markets, while systems for mobile car park payments are being trialled in the UK, US and Croatia. Also in the UK, complete mobile systems are being deployed, such as the new mobile banking service for HSBC/First Direct.

The phones themselves do have a strong hold on users. In some countries, including Italy, Sweden and the UK, subscribers have more than one phone, perhaps to fit with their style of clothing, and in the Middle East upgrade rates are as short as three months as the latest and most expensive mobile phones are seen as jewellery and sought out for their fashion appeal. Western European users favour hardware brands they recognise in retail outlets, with the handset companies holding a strong influence on the market, while in other parts of the world price and service are more important, and the hardware company is invisibly white labelled behind.

However as the market evolves, the strength of brands beyond the technology suppliers of network and handsets start to attract greater customer attention. These sometimes appear as Mobile Virtual Network Operators (MVNOs), such as Virgin, Disney, Amp'd and Helio, but success has been patchy, with notable difficulties for some, such as Disney's Mobile ESPN. There are also the Internet and IT cross-overs from Apple based on the success of iTunes and the iPod players, and the search-engine come portals of Google and Yahoo. In most markets, carrier, device and content brands are all in play, and vying for the most important prize – the customer.

What this means for those seeking to exploit the power of the mobile reach to those customers is also complex. The relationships have to be tuned to the geographic area as well as demographic profile being targeted. Just as the content being used or delivered has to be adapted to local languages and cultural differences, it is important to recognise the variation in local market conditions.

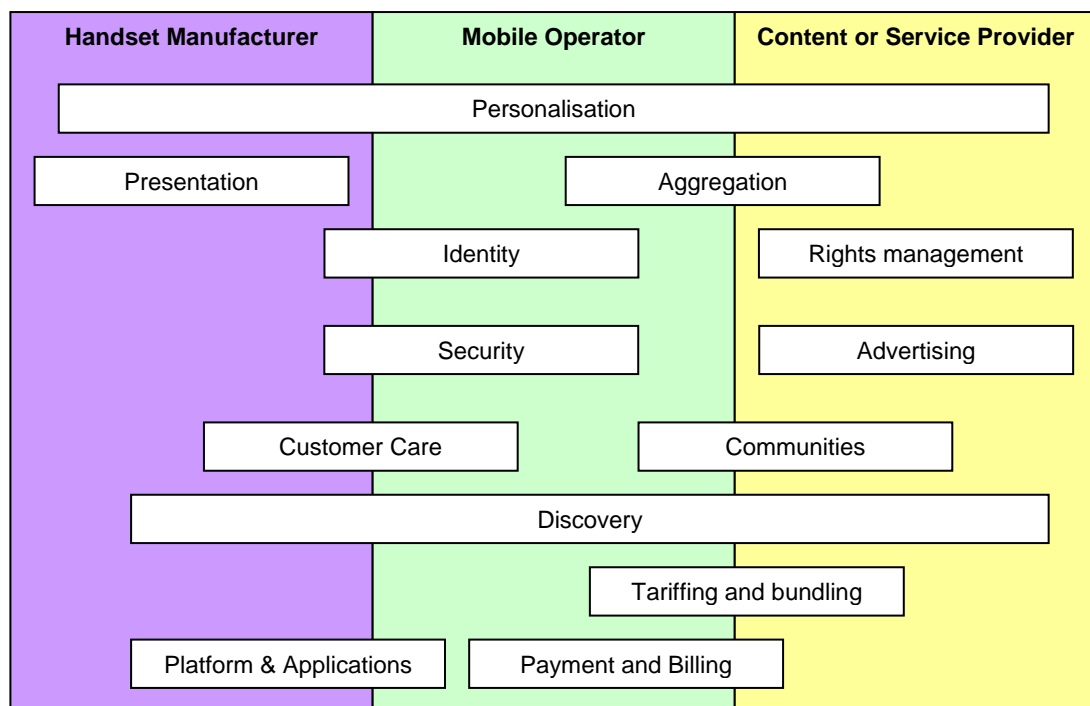
Powerbases and the mobile value chain

Some of the geographic variations come from differences in where supplier control lies in the market. Mobile operators are dominant players in the mobile market in Europe and despite the more patchy coverage are even stronger in the US, but this is less the case in the Far East. Even the strength of European operators was insufficient to pull together a standard for mobile payment and the collaborative Simpay project was finally closed down as an international initiative in 2005. Although some developments may appear at a national level, or mobile versions may grow from successes elsewhere, such as eBay's PayPal. The organisations which exert control and influence in any region have a significant effect on how the market might develop and how the mobile channel might be exploited:

- Mobile operators with handset control – these aim to manage the entire end to end experience. While some operators have had early success with WAP portals, the next step is a fully customised experience, with a limited set of choices of services with well-defined tariffs. The goal is high quality services targeted to subscribers, and using 'hero' handsets to strengthen the brand. While this strengthens the operator and offers a simpler high quality service to subscribers, it makes the challenge harder for other services and brands outside the operator's set scope.
- Mobile operators with fixed network assets – these are heading for closer alignment between fixed and mobile and bundling of services. This may also involve control of the end to end mobile experience, but the link with other services increases the depth of the bond with the subscriber, making it harder to switch providers.
- Mobile operators without handset control – this is more prevalent among smaller operators, and also many in the Far East. They are often being squeezed by the stronger brands, but are keen to engage their subscribers with new data services. They

also generally recognise the need to have a sufficiently broad set of services to be able to combine and focus specific offers to different communities of interest.

- Handset vendors – there is increased focus and marketing spend from the major handset brands – Nokia, Motorola, Sony Ericsson – not only on strengthening the brand image, but also on embedding specific applications to appeal directly to the consumer. After the success of the MP3 market, and in particular the Apple iPod and iTunes environment, music is seen as a prime market, with again a recognised need for an end to end solution.
- Software platforms – there are few, some of which have moved in from dominant positions in other markets, such as Microsoft, some specialists in small device platforms – Symbian, Palm, RIM – and others where the software platform is simply absorbed and hidden in the device. Among these, there are also the open source choices based on Linux. The strong influence comes then from the effectiveness of developer communities, but unlike the desktop computer market this remains fragmented with successes in specific usage categories, such as the BlackBerry for mobile email.
- Consumer handset application software vendors – few have real power as they are often subsumed in the infrastructure, but many have influence. One significant area of interest is the user experience or user interface environment that is embedded on the handset. This allows for customised branded experiences to be provided from the moment of switch on. Currently these are for the operators or handset companies themselves, but it is possible that in future other players and brands will want to have their own bespoke environment.
- Pure service, media information and entertainment providers – this is set for strong growth and there has already been an explosion of ideas, with some notable failures. The main challenge is how to reach the consumer. One noticeable approach has been to establish a Mobile Virtual Network Operator (MVNO) offering the complete user experience with branded services and the carrier providing the connectivity and billing hidden. The second challenge is dealing with the complexity and level of pricing. Consumers would prefer services to be billed on their value, not the cost to ship them across the network, while content or service providers would prefer commonality of pricing across carriers.



All parts of the mobile value chain have their roles to play as the solution involves many aspects. The delivery of services to mobile devices brings several industries together in close proximity: media and entertainment; telecommunications; the information technology and software industry. This brings uncertainty and with it defensive attitudes, as major brands in one industry realise how low their awareness or value is in another. This affects how organisations work together and their commitment to partnership. To exploit the mobile channel it is therefore necessary to identify who are the key partners and suppliers, how their products and services fit and what will be required to integrate them together into an acceptable solution.

6. Finding a way forward

Key Findings:

- Mobile content and services need to be clearly identified as mobile friendly and simple to find while the user is mobile
- Content that appeals to one person may not appeal to the next, the mass market needs a mass of available content
- User experience is paramount – mobile friendly means being relevant to the specifically mobile user needs
- Open standards are necessary for sufficient content to work well enough on the widest range of handsets
- Personalisation is not an optional ‘extra’, but a requirement for mobile relevance
- Mobile pricing has to be set to stimulate the market for the longer term, not simply make early revenues.

Signposting serendipity

Once an organisation has decided to have a presence or to communicate using the mobile channel, how is anyone made aware of the fact, and how will they find what services are on offer? The mobile phone can be delivered to the customer with a certain amount of functionality and services, but this will depend on the manufacturer and operator offerings. While mobile portals have attempted to package up a useful set of generic services mainly aimed at a particular segment audience, these are unlikely to match the diverse needs of the whole community.

Everyone will have something different that they are looking for. It might be based on a brand name they know or something they have heard of from someone else, or they may be simply trying to find something based on sketchy initial information.

Many businesses are dependant on a memorable name or brand. In the Internet age this extended into cute and funky, with some traditional companies getting so caught up in the idea they renamed and re-branded with disastrous effect. The British Post Office managed to re-brand to “Consignia” for a mere 14 months before returning to a name its workers and customers knew, remembered and respected, the Post Office. The Internet and now mobile identities of companies need to reflect that known name, whatever it might be, as that is the word a customer will try first in a web browser.

As the Internet gathered momentum, there was a recognisable trend of cyber-squatting, where individuals would register un-allocated “.com” domain names that contained the names of major companies to then sell them on to the relevant company at a profit. This has been more controlled as new top level domain names extensions have appeared, so when the mobile domain “.mobi” was made available for an initial period only to companies with trademarks, over 13,000 “.mobi” domain names were claimed in that period, and then 75,000 in the 8 hours after the restriction was lifted.

Just as with .com domains and addresses, mobile specific names and addresses need to be consistently used in all forms of marketing. This means not only on specific material, but everything, added to the list of contact points – address, phone, mobile phone, web and mobile web – for the organisation. As with the growth of the Internet, the time to reflect that this has been successful will be when small businesses have “mybusiness.mobi” written on the side of their van.

Mobile friendly naming and signposting of the intended use of content on a mobile device will encourage users to at least take a look at mobile sites. Whether they keep returning will depend on how useful and relevant the content is for mobile users, and how good the user experience is within the constraints of the mobile phone.

Discovery by mobile search

In the mobile context, most users want to be taken straight to a service, but sometimes despite supplier marketing efforts, little guidance is available or information is patchy. The individual may not know what they are looking for, and whereas on the fixed Internet this may have involved some time spent in non-directional ‘surfing’ and ‘browsing’, this is a far less satisfying experience while mobile. When mobile users search, they want to find something specifically and quickly without wasting time for browsing.

How should this be conducted? Some have trialled the use of voice input for keywords, faster than keypad typing, but while a nice idea in concept, the potential is quickly dragged down by the reality of dealing with background noise, different languages and the ambiguity of words out of context. Will any form of web search find what the searcher is looking for quickly enough, as the desktop browser model of wading through pages seeking out a relevant link is no longer appropriate to the mobile user?

There is more information which might add relevant context to a search. Inferences using the results of a previous search could quickly narrow down context. A search on the topic of music followed by one on “Madonna”, could make inferences about the two being linked, but this would require high levels of constantly updated intelligence in the search engine, and there is the risk that the inferred linkage is not the one required – for example, that the user was requesting medieval monastic plain chant in the “Madonna” and “music” example. There may be aspects that could be drawn from the mobile user, perhaps from their subscriber details, and current location depending on data protection and privacy laws, as well as the time of day. The key criterion for search results is relevance to the mobile individual at that moment.

Different types of answers may be delivered as the result of a mobile search, each presenting the user with a potentially different experience:

- The Internet at large – these results will then need to be trans-coded to be viewed on a phone, and may overload the phone or network link with sites that may not add much value to the mobile user.

- Mobile specific or mobile aware sites – these are likely to have the most relevance to a mobile user and hence should be ranked higher by mobile search applications.
- Operator, carrier or service provider’s own portal – often a very fast route to finding a relatively limited number of alternatives
- Sponsored links – depending on how a search service is offered, for example if it’s free, sponsored links may be used to pay for the service on behalf of the user in the hope of receiving some attention.

With only a small screen available to display these results, there will always be a trade-off between getting as many results to the user and making them as relevant as possible. Even on a desktop Internet search, few users stray beyond the first few hits rather than wading through pages and pages of results. In the mobile context, relevance of search results is even more important for finding good mobile content, and it is important that mobile search engines rank the results carefully for the needs of the mobile user. Those businesses looking to exploit the mobile channel should be aware that mobile users will expect something that is easily discoverable and which works when offered as a result of a mobile search.

Aggregation and Choice

The mobile channel, whilst valuable for its proximity to the consumer, is fragmented by the geographic coverage of carriers and the types of communication technology employed. As noted the relative strength or dominance of the players in the value chain – handset manufacturers, operators, content or service providers – plays a major role in deciding how the customer is reached. This has led to alternative commercial distribution options to fit different market needs:

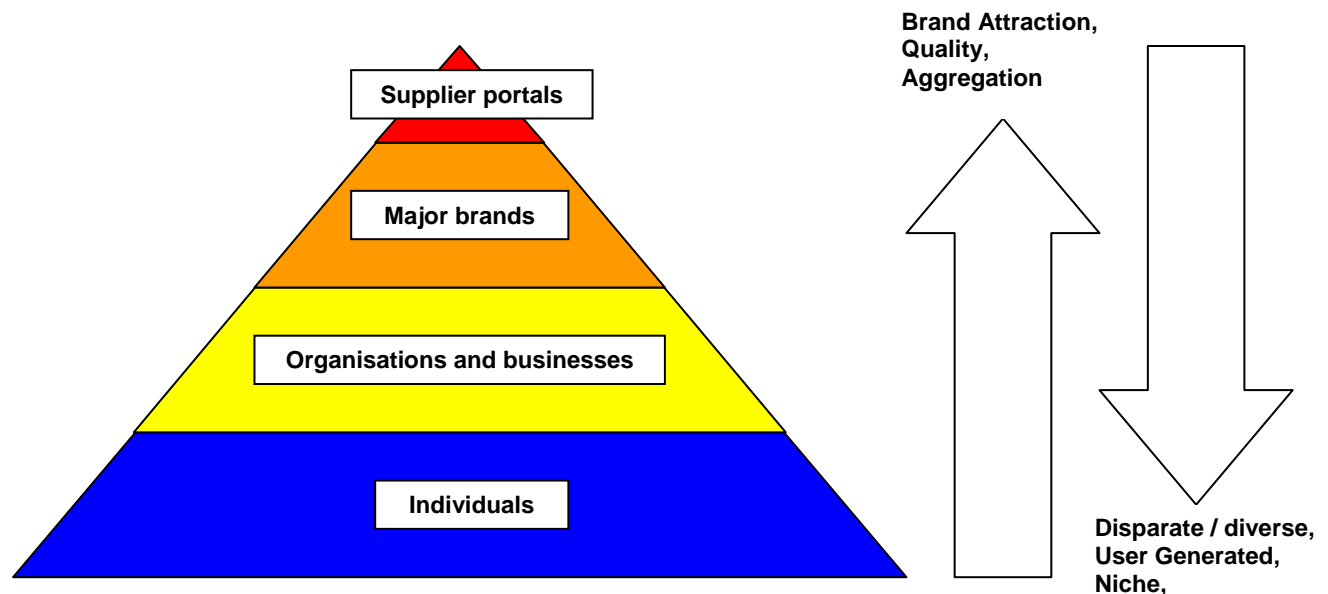
- Operator portals offer a very visible point of entry to services on a handset, sometimes with their own dedicated buttons or menu option, known as being ‘on portal’. They have been well marketed to exploit the operator’s brand, reach and transaction experience, so content is easy to find, subscribers are authenticated and billing is direct. The success of “Vodafone live!” led other portals to follow, but each is limited to their subscriber base, supported handsets and operator processes. Content providers have to balance operator market strength with reach, integration effort and conformance to the style and acceptance procedures of each operator. In every country, full consumer coverage will require negotiation with a number of operators for placement, revenue split and branding. This is still a very fragmented approach, often called a ‘walled garden’ due to the controlled nature of content access only for the subscribers of a particular operator.
- Aggregators act as third party intermediaries between content provider, network operator and consumer. This gives a broad and unified reach, simplifying usability, but will limit the supply side of the relationship depending on the specific aggregator’s breadth of commercial agreements and brand awareness. Some offer a single point of contact and convenient payment, allowing content providers to focus on their services and not be concerned about differences between operators. This is particularly apparent where there are several major operators dividing up the subscriber community in one geographic territory. Thus far the main focus of aggregation has been at the network level to simplify complexity between carriers, but more sophisticated handsets allow for multiple applications to be aggregated within a single user experience. So far this has been the territory of operators with influence over handset manufacturers or the manufacturers themselves, but another brand with strong user affinity might also be able to achieve this level of aggregation.
- With an ‘off portal’ or direct to consumer approach, organisations working as content providers take responsibility for the marketing, discovery and ensuring the mobile suitability of content and services. But this does provide full control of brand and service delivery across multiple countries and operators, with time to market advantages and broad customer reach. For these benefits, content providers have to ensure their content and services are mobile aware, and manage the integration into any other mobile aspects used, such as billing. However this offers the widest choice to consumers – they can go anywhere - so the hardest challenge is ensure they discover the services available. Search engine providers will want to provide mobile relevant results, so content providers have to find means to be easily indexed as “mobile aware”. This will also depend on translating brand strength or names into the mobile domain as well as an appetite to fully exploit all other forms of marketing to raise awareness of the mobile offering.
- User generated content represents an opportunity to massively increase the breadth of mobile aware material, and will accelerate the adoption of mainstream content. There are many specialised and one-off services that will only ever appear to a small group, as well as large scale community media sharing services that appeal to our interest in trading, curiosity, or even voyeuristic nature. Big Brother on television, eBay and YouTube on the Internet, and perhaps services like Rate Your Night – a mobile site encouraging user generated MMS and mobile video sharing with rewards and cash back – all develop communities of interest and grow through viral marketing and the appeal of the latest trend.

Content and services are easier to find if they are all in one place, and the approach of mobile portals thus far has been to pull in and aggregate services to a limited set of higher quality choices. This does not have to be kept as exclusively for the subscribers of one particular operator in a ‘walled garden’. Some content and services could be made publicly available through a generic site attracting the customers of other operators, perhaps asking for their contact details and mobile phone number in return for access. If an operator has good content or services, making it available to a wider audience will increase its use, and may encourage customers of other operators to switch allegiance.

The mobile industry has long been chasing an elusive “killer application”, but as with many markets, it is likely that there is no single application, but rather a “killer cocktail” or blend of different services that prove sufficiently interesting. Even with this, there will be different flavours or combinations which appeal to different segments or audiences. Getting to this stage will require a much broader set of applications, content and services than the on portal approach encourages.

As the capabilities and functionality of the handsets continues to increase, the pressure for standardisation, interoperability and ubiquitous access to information and services also increases. Consumers want mobile friendly content to be easy to recognise and

find, and for it to always work efficiently and cleanly, whatever their chosen mobile device, or their choice of carrier. Content providers want to access the widest possible range of consumers and handsets, unhindered by any economic taxes or constraints imposed by mobile operators or mobile handset manufacturers. This needs to be done rapidly and with minimal effort, extending existing skills and content into the mobile domain.



However, in a large mass of content, there will need to be many mechanisms to improve the chance of connecting a consumer to something that is relevant and interesting for them. Good naming, signposting via the domain name extension “.mobi” and even mobile search tools can only go so far. Just as with any new idea, there will always be a reliance on earlier media. As with the Internet, expect to see paper directories, magazines and books pointing out useful mobile places to visit or cool services. Given the high degree of overlap between Internet access and owners of more sophisticated smart phones, marketing ideas that use the fixed Internet as a way to direct mobile users will prove worthwhile.

There will always be a place for known places or jumping off points to act as valuable anchors or concentration points for other services. Some will be operator portals, but as Internet Service Providers discovered a decade earlier, these will be subsumed by consumer brands, new and old, that attract a particular audience. New mobile portals will appear and ultimately all are aggregated at a higher level by belonging to the mobile Internet. As with the fixed Internet, the only things they are likely to share are a common set of standards for markup and layout properties, and a common domain naming convention. This base of common principles allows for innovation and creative thought to be applied without worrying that content and services will only be available to a subset of users. This leads to the virtuous circle of more content reaching more users, stimulating appetite for more content.

Personalisation and Interactivity

The mobile channel offers an ideal opportunity to open a rich dialogue with the consumer through personalisation. The amount of tailoring and shaping used to hone the user experience will vary from service to service, but there are a number of characteristics related to each individual subscriber that can be used to ensure maximum relevance:

- Personal Profile – the details of who they are, what type of device they use and payment model?
- Personal preferences and recommendations – what do they like, have they chosen to customise their mobile experience, have they created a wish list, or sent favourites to others?
- Recent behaviour and activity – what have they purchased, where have they visited?
- Phone or handset functionality – what are the physical characteristics like size, keyboard, stylus or touch screen and software attributes such as operating system, processing capability, browser or other software available and standards supported?
- Location – where is the handset? A precise fix might be valuable for location specific applications such as ‘find my nearest restaurant’, but even knowledge of country or nearest town could be valuable in narrowing search or discovery criteria.
- Time – the current day, date, season or even time of day can be used to ensure information is more useful to the user.
- When companies started to offer personalised content and e-commerce services on the Internet, it was often seen as a blunt way to increase the value of a sale through cross-selling and up-selling. Now the approach is more subtle, with information used to speed the process flow for the user’s benefit as well as the merchant’s. Well done, this can make it far easier to keep the communication with the consumer going and ultimately increases loyalty, although sometimes this might be because the user feels trapped.

- The most effective use of personalisation in the mobile channel is to take a similar approach. A user experience that works efficiently on the individual's phone, fits their immediate need and flows quickly with the minimum number of clicks necessary to find or use a service reduces the risk that a user will look elsewhere. However one bad experience, a download that crashes the phone, a mobile web page that costs a fortune to view, or content that when it arrives presents poorly on a mobile screen will put users off for good.

Value and Price

Unlike the fixed Internet which is increasingly accessed on an all-you-can-eat broadband model, mobile users have an expectation that they will be charged for individual services. Often service providers believe users should be charged a premium for mobile convenience, but this is a dampener on adoption, particularly with new services. Sometimes charges are best absorbed in the value chain.

There has been much interest shown in using the advertisement funded model for mobile entertainment, which has proved popular among Internet sites. In research conducted in the UK for the Pitch Mobile Marketing Report, almost half of 16-25 year olds said they would be happy to receive ads in exchange for free content, and around a third outside this age group agreeing. The value of the advertising was also seen as significant, with one in four consumers indicating they would respond to mobile marketing providing it was relevant to their interests.

If services have to be paid for, it is important for suppliers, and intermediaries such as operators, to be flexible. The charge demanded for delivering a service might not match the subscriber's perception of value. If the subscriber is expected to pay, it is better to set a range of pricing to encourage repetitive or regular use - \$5 per month unlimited use per month, is more encouraging than \$2 per download. It is important to adapt to specific mobile market pressures, as mobile services have a short lifetime and quickly falls from fashion. Prices need to be adjusted dynamically to maximise margin, but more importantly to maximise sales over product lifetime.

There are opportunities to offer choices to match user needs – monthly subscription, one-off, pay per use, loyalty point based systems – and it is important to understand consumer segments and offer different payment models to meet their needs. This also can mean integration with operator billing systems, but only for lower value items as there are regulatory controls on this type of activity. For example the EU directive covering “electronic money institution” has implications for mobile phone payments, and set a limit of €150 of ‘stored value’ per customer and this may impact the scope of external payments charged on a phone bill.

As well as integration into payment processes, there are delivery and logistics processes to consider. If real goods are involved this means access to inventory management and the supply chain. Given the challenges, content providers could consider and integrate offline alternatives for sophisticated content, for example distribute on a memory card and subsequently activate online.

Rich Content – Poor Experience

Unlike the relative uniformity of desktop capabilities, even across different PC operating systems and browsers – Microsoft Internet Explorer, Firefox, Opera or Apple's Safari – there is huge diversity of mobile device capabilities increasing the complexity of building mobile content. At any one time just to reach 50% of mobile phone users will mean having to deal with over 60 different models of mobile phones with diverse browser and operating system combinations.

The initial setup of a mobile phone as it leaves the store is not ideal for more advanced services. Any special configuration or software installation necessary for the consumer to perform is going to get in the way of service adoption. It even took the industry some time to realise that pre-charging the battery was a good idea, so that users could try the phone out immediately.

Simply expecting existing Internet web sites and content to be acceptable without modification to a mobile phone is not realistic. Although mobile phone technology has advanced greatly in handset screen quality, network performance and software functionality, it will never have the same capabilities as a desktop computer. Rich content designed for the desktop is not suitable for the mobile phone or the mobile user. There are several routes for content and services to take:

- Lowest common denominator. The basic services of SMS messages and WAP browsing are available on most phones, and while WAP enjoys some success embedded as the basis for mobile operator portals, it is unlikely to be sufficient. As a way to start the process, with shortcodes and web links, SMS is likely to be an effective supporting mechanism for most mobile operations.
- Trying to adapt web content while resident on the phone. This is a poor option as the subscriber and network has already paid for data traffic that may not be of use, the content may prove too big for the phone's memory, or may be too much to process in a time that is acceptable to the user.
- Adapt web content to the phone before transmission. This depends on recognising the handset type, and trans-coding the content into a form that is more efficient to transmit and will be recognised and displayed appropriately on the phone. The need for this intelligent delivery means only major portals, or content providers with sufficient infrastructure are able to put in place a suitably sophisticated adaptation service.
- Create mobile friendly content using existing content as a starting point. This means a separate or alternative set of pages of content designed specifically for mobile, with more limited functionality which is known to be acceptable to the web browsers on mobile phones. Although this seems like extra effort, in reality most web design skills and tools are transferable, and as the mobile route is likely to be used as a complementary rather than equivalent channel, it is likely that the flow or service available

will be different to that on the fixed Internet. There are guidelines available from the W3C Mobile Web Initiative and tools are starting to emerge to automate the process of 'mobilising' existing content. dotMobi, the company behind the ".mobi" domain, encapsulates these rules in developer guidebooks and tools as well as establishing compliance practices to direct search engine recognition and consumer discoverability for mobile aware content. Rather than a lowest common denominator, this can be seen as a highest common factor approach.

- Premium purpose built services. Rather than using existing web content, create a brand new rich and functional service that can be delivered to a mobile phone, or used within another application already resident on a phone. While this is likely to result in a highly effective user experience, it will require significant investment with programming skills, and to be effective will have to target a subset of all available devices. This can be taken to the ultimate ends, with custom mobile devices specifically tailored to the service, an example of this is the supperclub mobile, www.supperclub.com where exclusivity and style are the primary goals.

Whichever the route taken, the starting point is always to be clear, straightforward and mobile aware. From a design perspective this means constraints, and to help content providers there are guidelines available from the W3C Mobile web initiative, www.w3.org/Mobile and the dotMobi developer forum <http://dev.mobi> as well as some direction on a mobile friendly approach in Appendix A.

The norms for broader mobile application functionality are yet to be formed, but the most reasonable approach for extending services to mobile is to be consistent. If the phone is used as the remote control or instrument for another service, make the concepts used consistent. A service for mobile cash movement should be based in the same principles as an ATM, a service to grant access to private parties via an invitation should operate in a similar way to paper invitations.

Users need to be encouraged to spend their time and perhaps money on mobile services or mobile sites, and need to be fairly sure that when they enter or find a web address on their mobile phone, the experience will be positive. Failure to meet expectations will dent user confidence in the mobile experience, which has already suffered from the over-hype and limited-delivery of WAP.

New channels – old laws

Finally, although the mobile channel is an opportunity to be exploited, there are a number of issues covered by the existing legal framework, which organisations need to be aware of:

- Privacy and data protection. Much personal data can be collected in particular by the operator, including current location, and while this might be valuable to those offering services, it can only be used within the prevailing data protection regulations, and generally only with the express permission of the subscriber.
- Presentation and acceptance of terms and conditions. Most commercial transactions require some form of commitment to a set of terms and conditions, and these have to be seen and understood by both parties. For the mobile consumer who is accepting the terms of sale or agreeing to certain use of their contact details, this may require more complex information than is palatable on a small screen. For the provider, the need to interpose this information during the course of a transaction might put the user off, for example when it is necessary to outline the different charges that may be imposed by diverse mobile operators in any given country.
- International boundaries and interpretation. Mobile services face similar challenges to those delivered over the Internet in that they can be offered from one country, travel through or touch intermediaries in other countries and be delivered to a handset while the subscriber is roaming in yet another.
- Access to inappropriate content. Also a problem prevalent with the Internet, but in theory it is more practical to apply greater control of access to inappropriate material as more is known about the owner of the handset. Who decides what is appropriate is a sliding scale encompassing censorship and parental control.

7. Conclusions

There have been many false dawns heralding the start of a so-called mobile Internet and this has led to widespread cynicism of the whole idea. Much of the early hype raised expectations of a mobile experience that would be somehow directly comparable to that of the fixed, desktop user, and this of course has proved to be impossible. The mobile device will always be smaller and the airwaves will continue to heavily lag the carrying capacity of wires, so the experience has to be different. The value chain is also somewhat more complex, with control and access to the end customer being fiercely fought over by device manufacturers, software suppliers and mobile operators, leading to proprietary solutions that artificially divide up the user community.

However, this industry has moved to a more open and standards based approach which now addresses the challenges of the early mobile Internet solutions:

- Device proliferation - The penetration of sufficiently capable mobile devices has passed the point such that any type of business can extend its reach to a worthwhile community of mobile users.
- Transferable skills - The skills learned and tools used in developing a presence and community of interest through websites on the Internet transfer easily to the mobile domain and can be extended by more personalised interaction.
- Direct to consumer – The restricted ‘walled garden’ concept where content is available only from the mobile operator is changing into open alternatives with other effective methods for establishing links to content or communities of interest.
- Mobile specific marketing – Greater open audience size make it feasible to leverage traditional marketing, direct discovery through mobile naming and searching, as well as the other players in the value chain.

The mobile Internet offers new opportunities beyond that of the fixed Internet. Where the fixed user generally actively ‘pulls’ services only when they sit to look and use them, the mobile user is available for a two-way interaction at any time. The access and communications device is almost always on, and almost always with the person. This alone will not generate an uptake if the services are difficult to find and use, are not sufficiently compelling to be worth the price being asked or do not add value to the mobile consumer and the service producer.

The key to exploiting this mobile Internet community lies in a pragmatic approach, based on solid business principles, rather than market hype. It will rarely be acceptable to simply replicate an existing website or service and expect it to be a mobile success. Nor is it wise to create an entirely new business concept centred round a wholly mobile philosophy; mobile extends not replaces. As was demonstrated in the Internet boom and bust, ideas that are not founded on reliable business processes and established market concepts usually fail. A leap into the unknown is not sound business practice.

An effective strategy is to use the mobile Internet to extend the reach of the business as a channel for marketing communications and adding value to existing services or products and a route to reach new customers. This requires a mobile approach encompassing:

- Simple discovery – identified as mobile relevant from the outset means easier to find, select and use.
- Mobile acceptability – mobile friendly design, not just small screen, but effective and valuable specifically for the mobile user.
- Broad constituency – open standards, cross operator, cross device types, a common open community
- Personalised – segment and target based on user requirements and benefits not artificial technology or supplier constraints.

What is the mobile Internet? A small screen replication of the fixed Internet is an unrealistic and technically oriented view, more realistically it is a thread of control. A spider builds a web to generate income in the form of food, and the quality, size and positioning determines how many passing insects will touch the web, and how many will be ensnared. However the critical thread in the web is the separate communication line that connects outside the plane of the web to the remote spot where the spider is hiding. This gives the crucial interaction between the prey caught in the web and the spider – the mobile Internet is poised to give a similar capability for many businesses.

From this viewpoint the mobile Internet is becoming a reality that extends reach, offers relevance and enhances relationships.

APPENDIX A - Good Mobile Thinking

- **Business focus** - Focus on customer and service, leave the technology specialists to provide the technology solution. Technology changes too rapidly – insulate content creation from the delivery channels and handsets. Operators have different infrastructures – use a solution which abstracts services to be operator agnostic. There are too many proprietary options – use a standard which separates content from underlying technology.
- **Visibility and discovery** - Make it easy to find products and services. Use mobile friendly naming and signposting. Work into existing marketing material – put mobile website address on all collateral. Combine traditional, Internet and mobile marketing – use SMS as a call to action, e.g. ‘send to my mobile’ links to remove need to input complex addresses. Try super-distribution - download first, share next and pay later for something related – like the Internet models of Netscape, Google and Skype. Beyond this use other viral techniques of referral, recommendation and bundling. Many consumers unconvinced by advertising will listen to friends and peer groups.
- **Management Processes** – Ensure mobile content is synchronised with all other business processes and assets, not a detached add-on. Run a well defined publishing process that is easy to communicate – important for internal staff, but vital for 3rd parties and partners. Make frequent changes in a known schedule, it encourages repeat visits. Publicise and use a “What’s New” link for recently added content. Synchronise with external marketing – launch new content alongside adverts and in the same territories, but support multiple languages so that multi-region activities can be launched. Keep in step with external events – changes in legislation, breaking news – it encourages users to bookmark and return. Mobile content has a shorter lifecycle, be ruthless in removing and archiving old products. Allow advance scheduling – e.g. for major events where plans need to be made well in advance. Rush to market with fresh ideas or the fad or craze that inspired it may have passed.
- **Abstraction** - Network infrastructures and devices are complex, and differ widely. Although many organisations are proud of their products’ distinguishing features and differentiation, consistency is more valuable to content and service providers. There is a pool of developers with strong web knowledge but limited telecoms knowledge to be leveraged to create new mobile applications. This does not mean that everything must revert to the lowest common denominator. Consistency can be achieved through using open standards and widely endorsed guidelines. Look to the standards bodies – W3C, OMA, ETSI – for guiding principles where standards are still emerging.
- **Design for mobile friendly user experience** – Keep it simple and clear, mobile users get bored quickly and will not want to pay for over-complex or unnecessary graphics. Use standards and style guidelines to work with the widest range of devices and dilute user frustration. Test images, such as brand logos or other graphic identifiers on a mobile phone. What looks clear and easily recognisable on a PC screen will blur on the constrained pixels of a mobile screen. Simplify page design and signpost main options at the top of the page – home | downloads | search. Use bold colours – high contrast helps users in sunlight, avoid dark backgrounds. Minimise number of clicks – one click to order, one click to add to wish list. Keep relevant information to hand – automatically feed in known information so user does not have to search, find or enter it themselves. Keep input and response simple, use pre-programmed words or phrases to select by a single click. Edit multimedia content for mobile – concise, valuable while mobile, fit to handset capabilities and likely viewing model.
- **Personalisation** – Recognise the individual, their preferences and their circumstances. Only offer content and services that are relevant to that particular user and are suitable for that user’s device. Structure based on recent usage – push frequent selected menu items to the top of the list. Store lists of preferences – favourites, wish lists, bookmarks. Store recent activities – top 5 pages viewed, last product purchased. Display personalised and relevant content as close to the head of each menu structure as possible. Encourage interaction across the channel and with and between consumers.
- **Analysis** – Keep track of subscriber and handset information for personalisation, cross-selling and customer support. Reports may be required for communicating internally, for managing service level agreements with partners or for sharing revenue with other parties. The information needs to be recorded, but also make available for export into suitable formats for financial analysis using existing data mining or reporting tools. Reports need to be available across and beyond the organisation so web-enabled tools give an extra level of freedom to share information.

About dotMobi

mobile Top Level Domain Ltd (mTLD) is the global registry for the .mobi top level domain.

dotMobi – the informal name of mobile Top Level Domain Ltd – is the ICANN-appointed global registry for the .mobi top level domain. Backed by 13 leading mobile and Internet organisations, .mobi addresses the need for seamless access to Internet-enabled mobile phones.

.mobi is the first – and only – top level domain dedicated to users who access the Internet through their mobile phones. With four mobile phones purchased for every one personal computer, there's a world of people whose main access point to the Internet is a mobile phone. And every one of those users can trust that a web site is compatible with their mobile phone if that site's address ends in .mobi.

In an increasingly mobile society, businesses, organisations and individuals need to reach and interact with their customers via the mobile web. A .mobi address allows them to bypass the constraints of geography, operators and handsets to effectively reach their audience. In doing so businesses and content providers can sidestep the economic barrier to entry which typically involves sharing a portion of revenue with the operator for placement and instead invest in their content and/or marketing and advertising to build reach to their sites. In addition, dotMobi ensures a predictable, consistent experience on a mobile phone by encouraging site owners to use dotMobi *Switch On!*TM Guides, based on Worldwide Web Consortium (W3C) open standards.

dotMobi, the company behind the .mobi domain, is backed by the most prominent mobile and Internet players in the world – the same companies who have delivered the promise of today's information society: Ericsson, GSM Association, Google, Hutchison, Microsoft, Nokia, Orascom Telecom, Samsung Electronics, Syniverse, Telefónica Móviles, TIM (Telecom Italia), T-Mobile and Vodafone.

dotMobi is also a sponsor of W3C's Mobile Web Initiative.

Try .mobi sites yourself. Use your mobile phone and visit <http://demo.mtld.mobi> or see <http://dotmobi.mobi>.

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About Quocirca

Quocirca is a perceptual research and analysis company with world-wide research capabilities and a focus on the European market for information technology and communications (ITC). Its analyst team is made up of real-world practitioners with first hand experience of ITC delivery who continuously research and track the industry in the following key areas:

- Business Process Evolution and Enablement
- Enterprise Applications and Integration
- Communications, Collaboration and Mobility
- Infrastructure and IT Systems Management
- Utility Computing and Delivery of IT as a Service
- IT Delivery Channels and Practices
- IT Investment Activity, Behaviour and Planning

Quocirca research is always pragmatic, business orientated and conducted in the context of the bigger picture. ITC has the ability to transform businesses and the processes that drive them, but often fails to do so. Quocirca's mission is to help its customers improve their success rate.

Quocirca has a pro-active primary research programme, regularly polling users, purchasers and resellers of ITC products and services on the issues of the day. Over time, Quocirca has built a picture of long term investment trends, providing invaluable information for the whole of the ITC community.

Quocirca works with global and local providers of ITC products and services to help them deliver on the promise that ITC holds for business. Quocirca's clients include Oracle, Microsoft, IBM, CA, O2, Symantec and Cisco. Sponsorship of specific studies by such organisations allows much of Quocirca's research to be placed into the public domain. Quocirca's independent culture and the real-world experience of Quocirca's analysts, however, ensures that our research and analysis is always objective, accurate, actionable and challenging.

Many Quocirca reports are freely available and may be downloaded directly from www.quocirca.com.

Contact:

Quocirca Ltd
Mountbatten House
Fairacres
Windsor
Berkshire
SL4 4LE
United Kingdom

Tel +44 1753 754 838
Email info@quocirca.com

The logo for Quocirca, featuring the word "quocirca" in a lowercase, sans-serif font. The letters "quoc" are in blue, "irca" is in red, and the "c" at the end is in black.