

Social Shaping of UMTS

Preparing the 3G Customer

Report 26

This report is the result of an independent study conducted by the Digital World Research Centre (DWRC) on behalf of mobile communications industry body The UMTS Forum. An alliance of Third Generation (3G) mobile network operators, equipment manufacturers, regulators and mobile developers, the UMTS Forum promotes the global success of 3G systems and services.

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1 Executive Summary

The research programme has identified and explored some of the key ways in which consumer needs and expectations have driven GSM technology and how those same or similar needs will shape future UMTS services and products. The purpose of this has not been merely scientific, but is intended to enable suppliers of UMTS products to be in a better position to plan, shape and develop their offerings. It will also enable them to develop more effective strategies for shaping customer expectations.

The need to do so is evident from the experience of technology innovation in other sectors. The most obvious example of a failure to appreciate social shaping factors is to be found in the fate of fixed line telephony at the beginning of the last century. Here initial expectations on the part of the supplier industry were that their technology would be used for business to business calls and for broadcasting content (such as news and musical concerts). In both counts the industry was wrong and this led to inappropriate investment, and delays in the development of products and services for where there was demand. More recently, the fate of office information systems has been similarly beset by misinterpretation of what their use and impact will be. By failing to understand how users of such systems shape them in particular ways, huge amounts of money and investment were squandered throughout the seventies, eighties and into the early nineties. The failure of attempts to deliver the paperless office during this period is perhaps the most obvious manifestation of this.

It is clear therefore that similar errors may be made by the UMTS community if they persist in being a technology led industry. Social shaping factors, if not as important as technological ones, are certainly necessary to understand and bear in mind in planning, in technology development, and in business strategy. A failure to take such factors into account will potentially undermine the commercial opportunities that UMTS will provide.

It was in light of this that the research was conducted. It consisted of three phases.

Phase One: The aims of this phase were to identify key social drivers for the development and success of GSM and related technologies that may be applicable to the introduction of UMTS technology.

Phase Two: The second involved deepening understanding of three social drivers themes, selected in close cooperation with the UMTS Forum working party on the project. Further data gathering and research was then undertaken, before initial drafts of the implications that these social shaping drivers would have for UMTS services and products were prepared.

Phase Three: This involved presenting those implications to key players in the industry, to test for their accuracy and relevance, and to enable a further refinement so as to deliver analysis of the implications that combine scientific and commercial-industrial understanding of what social shaping will mean for UMTS.

In summary, the key implications of the investigation in to these three social drivers for suppliers of UMTS are:

- 1) ***Mobile devices do not enable more social relations but more intensive relations with already existing social contacts.*** The key implication of this for UMTS is that GSM and related technologies have been shaped to satisfy the need for “personal telephony” which is built on the back of mobile technology. This will mean that it will be difficult, though not impossible, to extend users’ requirements for UMTS products and services into non-personal needs, especially business needs. Nonetheless, there will be significant opportunity for expanding and enriching the

experience of personal communications (such as through imaging).

- 2) ***Users have a more emotional relationship with their mobile phone than they do with other forms of computational device.*** The key implication deriving from this is that UMTS services and products that satisfy emotional needs will consist of person to person connectivity applications. The social value of these services will be much higher than the value given to person to information services. This will be reflected in the price sensitivity of each genre of application.
- 3) **The intersection of public by private behaviours enabled by mobile phones will reach a threshold beyond which resistance will start to occur.** The key implications from this are that, in the case of location-based services (LBS), user and regulatory resistance will occur if these types of applications are introduced without enabling more fine-grained permission-based control than is currently available. This will require considerable improvement in the man machine interface (MMI) of UMTS devices that will ensure that permissions can be provided on an ad hoc, 'as need to know' basis. The implications for imaging applications are that they will find wide acceptance if they encourage users to develop a form of use that is analogous to texting. This will involve such things as 'pictures for play'. If the shaping of consumer expectations towards this model can be done effectively, there is a strong likelihood that a considerable market will emerge for imaging. However, the implications for video telephony are quite different. Here the evidence shows that fully two way video calls will generate considerable resistance unless radical improvements in the MMI and form factor of hand-held devices is achieved. These will need to allow much more flexible 'user control' that ensure that recipients of such communications can manage precisely when such communications start and what is being seen by the caller when they do occur. Currently, changes in the MMI and form factor that will deliver these controls are not on the roadmap for UMTS.