

The wireless landscape has been dominated over the past couple of decades by the emergence of a range of major technology standards, such as DECT, GSM, Bluetooth and WiFi. Now commonplace in our lives, these technology 'trailblazers' have firmly established wireless as a global phenomenon that today's consumers have grown to expect. However, the story hasn't been entirely rosy. Products adopting these standards have often failed to present the technology to the user in an effective manner, and are not always that easy to use. This has limited the rate of adoption. Too few products today succeed in delighting the user with their convenience and usability and, as a result, too many products fail to encourage the user to 'bond'. This results in a general lack of loyalty to the standards and a specific lack of brand loyalty to the products that employ them.

Looking to the future, opportunities certainly remain for more players in this race for wireless fame, but the winners will be those that encourage their product developers to think beyond the limits of the standards, and which result in products and services that bring the user real value. At

Cambridge Consultants we see enormous potential for innovation in these non-core products and services. We believe that this shift in emphasis away from the core technology will dominate the development of wireless technology over the next decade, and that these developments will happen most aggressively in two main areas. One will involve the creation of more compelling applications, and the other will focus on the enhancement of the user experience.

How to win the race for wireless fame

This application-led focus will constitute a shock to many technology OEMs who have been used to driving demand through the early availability of faster, cheaper, smaller (or other such 'performance'

parameter) technology. In this new paradigm, performance and availability will be secondary to the product's ability to deliver a meaningful, valuable and contextually relevant service to a user seamlessly, attractively, effortlessly and in real-time. This will increasingly come to define success in new wireless product development.

That said, the identification of opportunities to develop these winning products is not straightforward and will require a great deal of imagination and entrepreneurial spirit. We need to be creative enough to stand back from the technology and focus instead on the user benefits and services that we want to enable. Only when we have identified what we want to achieve for the user should we start to choose an appropriate technology. The industry must then be nimble enough to bring together multidisciplinary teams quickly to ensure standardisation and interoperability. There are, of course, other practical limitations that have to be overcome in the next decade, such as internet bandwidths and investment in content-push, but these are most likely to be secondary issues that will



be overcome as and when demand reaches commercially viable levels.

A particularly strong example of how this shift will play out is in relation to instant, on-demand and 'contextually-aware' services. People have become used to accessing daily information such as email, news, weather, reviews and directions from the internet, in the comfort of their living room or study. The next step is for people to want to access this information wherever they are. Following on from that, people will then want to have direct access to just the information that they need now, information that is relevant to their current activity and which might be intelligently co-ordinated with other information or services. Expect to see new services like a 'taxi broker', where at the press of a button, the service finds an appropriate taxi for the user by knowing the location of the user, places a request for it and informs the user when it is likely to arrive - similar services have already been launched in South Korea. As another example, picture a scenario in which a patient could know the state of a doctor's queue en route to the clinic. If they found that they would have to wait for 30 minutes

after arrival, they could divert to a shop or friend's house on the way or, if at work, they could make a few extra calls.

'Automating the routine' - making life simple rather than more complicated - is the key to peoples' hearts. Nevertheless, to complete the picture, access to these services will need to be easy and intuitive. People don't want to manually connect their 'hi-tech' device or specify the optimal delivery service by which to receive the information. Rather, the device should select a service automatically so that the data is presented via the optimal route. Nor do people want to have the hassle of updating or configuring their devices. Instead devices should automatically manage themselves to remain up-to-date and healthy.

In many ways, today's internet services provide real-time information and entertainment as a mechanism to order real-world physical experiences for enjoyment in the future (shopping, booking travel, etc.). Only experiences in a virtual world can be delivered in real-time. But as service implementation becomes more integrated and more of the real world becomes 'internet

enabled', it is likely that more and more real-world experiences will come to be accessed through such interactions.

The companion devices and services that will be required to deliver this will need to provide very rich sensory - audible, visual or tactile - experiences if they are to be adopted and followed by a loyal set of users. The richness of the interface will come from a combination of the overall processing power, their design and the immediacy of the communications behind them.

Of course, in order to internet-enable the real-world, we will also see the proliferation of wireless systems that deliver high traffic density, high peak transfer rates in low-cost and long battery life configurations. The early pioneers of this brave new world will be uniquely placed to exploit these technologies and reap the inevitable rewards, but they will only be able to do so on the basis of not just a detailed understanding of the technology, but also a visionary approach to wireless service delivery and companion product design.

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