



Article written for New Design magazine Issue Aug 07.

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Communications Technology

Ring the changes

James Barr comments on what has possibly been the fastest ever decade of consumer demand, technology adoption, product design and information overload

According to Wikipedia, 'product design' can be defined as the idea generation, concept development, testing and manufacturing or implementation of a physical object or service. Interestingly, the word 'idea' originated from Ancient Greece and means an image existing or formed in the mind. So, in other words, an idea is whatever we can imagine.

But not all ideas are necessary and not everything really needs to be made. It's a greedy consumerist society which rebounds off of itself, always wanting the latest incarnation of their existing technology and if not the latest they want to download the future one (as a beta)!

One example of a young mass market has to be the mobile phone. Mobile phone penetration has grown exponentially over the last few years and is now close to saturation point in many countries. A colleague recently joked with a hint of seriousness that there should be a 'mobile phone amnesty' - an email should be circulated, like a Gentleman's Agreement between all the designers of the world, to put their pens down and let the market catch up. Let the consumers catch up with what they are actually using, learn and appreciate all the functions and, above all, accept some dimensional constraints.


A negative byproduct of this insatiable demand for the latest 'must have' device is that a product whether it be a new phone, laptop or music player, isn't allowed to achieve its full market potential. Every product has a lifecycle which includes initial excitement at launch with 'early adopters' pre-ordering, followed by a rapid succession of 'mass market consumers' who have been a bit more wary and have waited to read some product reviews before purchasing. The market will then tail off as competitors launch rival products and take market share. This downward trend continues until a point of non commercial viability is reached and production ends.

This timeline can obviously be affected at any point by press coverage, advertising, endorsements, product placement, exposure, re-branding and promotional deals. The point is that if the competition in a market is too aggressive, that timeline becomes increasingly compressed until a product is perceived as 'old hat' before it has fulfilled its potential revenue. This obviously has a negative impact on real world cash flow for the manufacturers.

The problem with flooding the market with a quick succession of 'developments' is that true worth gets lost under a sea of gimmickery - designers seeking to out-gimmick one another.

Proper technological convergence has been and will undoubtedly be the most dynamic area of change within the mobile phone market in the immediate years ahead. The mobile is no longer just a phone - it can also be a camera, an mp3 player, a substitute for the PC and even a method of payment. It even has the potential to become the most essential technology for networking, with its increasingly ability to substitute for the PC in terms of internet applications.

European regulatory policy has recognised this and is advocating diffusion of faster technology as well as public services through mobile phones. As more network operators enter the market, consumer prices have been spiralling downward in many European countries as a result of competition. This added competition and the threat of overlapping services with the broadband market mean that it will not be plain sailing for the mobile phone operators who will have to seriously look at their options.



There is also a technology battle currently underway between existing mobile and fixed line operators. New technologies such as WiMAX (the Worldwide Interoperability for Microwave Access that provides wireless data over long distances in a variety of ways), WiFi (a high-speed networking technology that uses radio waves instead of wires to connect you to the worldwide web) and ULTRA WiFi (unlimited WiFi internet access) are enabling fixed line operators to offer convergent services to their customers.

For example, Neuf Cegetel, a French telecom operator, has announced that its using an IMS-ready (internet protocol multimedia subsystem) from Nortel to offer TWIN, an affordable fixed/mobile convergence service. While, in the UK, the BT Group has launched BT Fusion - a combined fixed and mobile phone service which brings mobile, VoIP calls and WiFi together in one package.

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Research shows that even with the growth and adoption of data messaging such as short message service (SMS) and multimedia messaging service (MMS) mobile operators across Europe have not yet succeeded in finding a substitute for the growth of voice revenues. Data services (including SMS) represented less than 25 per cent of Western European mobile operators' revenues and only a small part of that came from 'value added services' such as MMS and mobile TV.

VoIP and WiFi is the perfect answer for consumers wanting to have communication and real exposure to information at all times, with the added bonus of the potential to do so inexpensively. This pairing is already starting to take hold with London's Square Mile financial district already having virtually flawless WiFi coverage with many other UK cities rapidly following suit.

The wireless networks have been installed in street furniture such as lampposts and street signs, ingeniously self powered by solar cells. The City of London Corporation, which commissioned the network (provided by 'The Cloud', a leading wireless broadband provider), were proud that it was the first of its kind in the world with full roaming capability. Traditional wireless links comprise standalone hotspots, but the city's new platform is a mesh network that enables continuous activity. "The network uses multi-radio technology rather than the single-radio equipment used in US mesh networks, providing better capacity and seamless roaming capability", says the Corporation's planning and projects manager Simon McGinn.

The City of London is offering complementary WiFi to attract and retain businesses, maintaining the capital's position as a global financial centre. There are also potential cost savings for businesses exploiting this new network through applications such as VoIP telephony. The WiFi platform provides greater flexibility for city workers, allowing them to use communication devices between buildings. For a trader, time is money and every second counts; walking from one building to another without dropping a VoIP call can add enormous value to a business.

Ten years ago when the internet revolution was upon us we could hardly have imagined the kind of access and speed of access to information which we now enjoy in our everyday lives both at home and at work. As consumers we have an insatiable appetite for 'more' and 'faster' and with flexibility.

Part of the product designer's job is to try and see into the future, to spot these trends and try to imagine just how they might be tailored to a specific industry or to answer a specific need and offer it back to the public. We now have washing machines and cookers which can be operated by SMS message as well as fridges with built in LCD screens (hooked up to satellite TV). Your high definition TV even learns what you enjoy watching and can record a bespoke selection for you.

In addition to all this, Microsoft has reinvented the coffee table. Code named Milan, the device consists of a table with a large multi-point input touch display on the top of it and a computer with wireless capabilities behind the display. In addition to Multi-Touch, which is rebranded Microsoft



Surface, the device can detect objects that are placed on it and can interact with them. For example, if you place a photo you have taken with your digital camera on the table, the photo will automatically appear and you can then slide it across the table with a flick of the finger and drop it to another device such as a mobile phone. This means that you can share digital photos with your friends as you would in the physical world. It is certainly a new development and an example of how a bit of blue sky thinking can spark a potential revolution in how we interact with technology. Its an example of taking design back to basics and delivering an intuitive solution to real consumer needs.

As designers we have to be sure we know how much we truly understand about our intended markets increasingly complex lives - the stresses and strains, the hopes and fears, the underlying needs? I personally believe a good design is often the simplest answer.

ENDNOTE

James Barr is a senior product designer at eye2eye design, a London-based product design company. He is also one of the judges of Bluesky 2020, a national design competition which aims to focus our thoughts as a design community on future concept design. For more information visit www.product-design-tips.co.uk