

# MAKING *IT* MAINSTREAM?

Robin Burley MBE FRSA

Eskhill & Co  
Eskhill House, 15 Inveresk Village, Musselburgh EH21 7TD  
Tel: +44 131 271 4000 Fax: +44 131 271 7000  
Email: [robin@eskhill.com](mailto:robin@eskhill.com)

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## Mainstream is Consumer Force

What do the DIY giant B&Q, the Ford Focus car and a kitchen utensil company called OXO all have in common?

They have woken up to the new reality of what the marketing consultants are calling the grey pound.

The demographic change that is sweeping through developed countries worldwide will generate innovation in products and services based on an agenda that is set by people over 50. In Europe, North America and East Asia, the balance of the population is changing. People are living longer and birth rates are lowering. These two – increasing longevity and fewer babies – will not only alter the population balance, they will also transform the power balance between the generations.

Tomorrow's older people are the generation that did not accept things the way they always were. In the 60's and 70's they created youth culture in Liverpool's Cavern Club and the pop festivals on the Isle of Wight. Through the 80's and 90's they remained forever young by moving effortlessly to consumer culture in the aisles of Tesco and Ikea. This is the baby boom generation that in the next two decades will make itself felt as a silver boom.

In the first two decades of this century this generation will bring into play the purchasing power of their index-linked pensions and their youthful attitude to living. They will not find it difficult to persuade the commercial world to support their desire for home comforts and independent living.

This will lead to a change in culture, not by waiting for legislative change but because customer pull acts on the commercial strategy. And the customer pull will be influenced by some of the realities of growing older.

If the newsprint is too difficult to read because the font size is small, the paper will be left on the newsagent's shelf. If the jam maker is incapable of providing a lid that is both airtight and easy to open, there will be another manufacturer that will identify the opening in the market. When we visit the supermarket we will pass by products out of reach. The more that consumer pull acts on the market place the more the market place will change to meet the requirements of the older customer.

Let me return to my first question but answer it in a different way. What do B&Q, the Ford Focus car and OXO – Good Grips all have in common?

Good Grips by a US company, OXO, market their kitchen utensils with chunky rubberised handles as 'innovative consumer products that make everyday living easier'. These are designed for easier use by people with manipulation difficulties and cool enough to appeal to a wider market.

B&Q has for long been praised for its employment policies on diversity but this has now led to taking things further. B&Q stock garden tools, such as secateurs, that are designed for the older market and they are now developing a range of power tools specifically designed to be lighter and easier for older customers to use.

Ford, with their successful Focus, have brought out the first car to be designed with the aid of a third age suit', a heavy, clumpy, padded garment that Ford's engineers put on to simulate stiffer joints, with goggles to blur eyesight, gloves to reduce sense of touch and heavy shoes to reduce agility.

We might like to think that these product lines are being influenced by the values of inclusion and diversity. But to be realistic we need to recognise that it is the pull of consumerism that is the driver of change in the market place.

It is not my intention to focus on the needs of older people but if we are to change the way technology helps people with infirmities and disabilities we need to develop the business case for companies to set aside their familiar approaches to design and adopt inclusive design as the new standard. By 2020 older people drawn from the stock of the baby boomer 'master consumers' will be over 50 and will represent over half the adults in the UK. They will also have stiffening joints, blurring eyesight, reducing grip and slowing down mobility. In short they will be the business case for inclusive design in almost every area of commercial activity.

## **Accessible Environments**

The physical design of our home environment is one area where there is plenty of scope for change. Our housing is full of physical impediments that make it difficult for us to maintain activity. Switches and power points require us to stretch. Taps and doorknobs are difficult to grip. And, if we have to resort to a wheelchair to move around, we discover that our doors are too narrow and there are steps at the front door.

The problem is probably that most designers are in the active years of their life and the natural inclination is to create built environments that meet their own needs. There are well documented guidelines on barrier free design but still too little attention is given to creating environments that are accessible and useable for people of all abilities. We need to encourage a culture change in our schools of architecture so that the natural thought process in the profession comes to regard inclusive design as the overarching principle.

Some signs of change encourage the belief that progress is being made. Building legislation in the UK has been introduced that will widen the doors and remove the steps into our homes. Clients' briefing documents, particularly in the social housing sector, are adopting barrier free approaches under descriptions such as design for all, lifetime homes, and universal or inclusive design. All of these approaches will assist people to remain active in their home in later life.

## **A Smart Infrastructure for Care**

Can new technologies provide a smart infrastructure that will render the bricks and mortar of the twentieth century care institutions redundant?

Demonstration projects are already identifying the important role for new technologies in supporting people in their own homes. If we have reduced strength and mobility we can use new technologies to help us control the doors and windows and appliances within the home. There are devices that monitor flood, smoke and fire hazards to improve our safety and security. Telecom and wireless devices will provide new ways to communicate with retailers, services, friends and family.

Of course, the interfaces with these new technologies do not require control to be initiated from within the home. Telecommunications can place controls as readily in the hands of remote carers who may have parallel or complementary systems that operate devices in our homes. This facility has the potential to be an important source of support for a vulnerable older person. However, if it is used inappropriately it also has the potential to be an invasion of our rights.

## **Avoiding the Virtual Institution**

This development of smart homes and telecare creates the potential to regard the masonry care institution as a thing of the past, except in exceptional situations. It also creates the potential for the institution to re-emerge in a new dimension that is not defined by the built environment. Smart systems can either be liberating or they can become a virtual institution that will be more insidious in the way it removes our liberties than institutionalisation.

This choice of institution or independence will be conditioned by the context within which digital care services develop. Will they be installed as stand-alone aids brought into the home in clinically designed white boxes especially for a separate client group of 'the elderly'? Alternatively, will these services develop as incremental extensions of the already familiar array of digital home helps that have found a valued place in our homes? For example a remote controller that works to change the channels on a TV can equally well open and shut doors, windows or curtains. We should not even have to change over the device we use in our hand to control a different function.

Developments in wireless communications may soon let us take this a stage further. Soon our laptops, our mobile phones, our printers and even our refrigerators will have wireless chips embedded in them called 'Bluetooth'. Bluetooth will mean that business devices and home appliances will be able to communicate with each other without wires. One thing that might develop from this is that the mobile phone could be used as a multi-purpose communicator in the home, capable of operating the hi-fi remotely or opening and closing the curtains.

Of course we might be concerned that the size of the buttons on a mobile phone make it a fiddle to use. But this is unlikely to be a concern because we will have the choice of using the keypad or talking to the mobile phone and telling it what we want it to do. Voice recognition is one of the fastest developing technologies and as its accuracy increases it is becoming a more useful tool to use for issuing commands to operate a device.

Further down the line we will see clothing emerge that has sensory circuits built into it. Levy and Phillips are developing a jacket that has a built in mobile phone and MP3 player. At present these are fashion garments but in the future developments in fabrics have the potential to assist people with disabilities or visual impairment.

We need to encourage the development of new technologies for care within a context that maximises the benefits to the older person and, as far as possible, places control at their hands. Such a context might have the following parts:

- it should extend the functionality of already familiar appliances and controls;
- it should exploit the capability of new technologies to be tailored to individual preferences; and
- it should use principles of inclusive design to ensure that new technologies are accessible and comprehensible to the widest range of people.

## **Extending Familiar Technologies**

Around the home there are plenty of home helps that are already part of our daily activities to provide an entry point for operating more sophisticated new technology devices. The TV remote controller is probably the most frequently used and the cordless phone has become a familiar device in many homes, including those of older people. We can add to these: the microwave oven, the hi-fi, the intruder alarm and the washing machine. These devices already provide us with a skills bank that can be built on to operate the new digital devices that will help us to maintain our independence, as we get older.

By making use of existing skills, we already have the ability to operate a wide range of new technologies if only the interfaces were designed to be friendlier. Too often, we write off the abilities of older people to use new technologies because there is little attention given by the designers to developing user-friendly interfaces and operating procedures. We seem to accept as a given that our children should be able to operate the latest piece of high tech that we have introduced to our home rather than demand that the manufacturers make it comprehensible to a wider audience.

## **Responding to the Individual**

The second factor in the context of telecare's development is to focus on the capacity of new technologies to respond to individual preferences. We know that our computer screen can not only be arranged so that the programmes we most regularly use are most conveniently to hand but also the symbol size, colour and contrast can be adjusted to aid us if we have a visual impairment. It is now commonplace for mobile phones to allow us to choose the ringing tone with some being capable of having a ringing tone implanted that we have recorded and when connected to our car being operated by voice commands.

Older people will wish to stamp their individuality on the appliances they use. Why not have differently styled clip-on fascias for the telecare hub to fit in with the house décor? After all, we can buy a variety of fronts for our mobile phones. But, more importantly, we will want to choose the way an interface device is controlled or which type of interface we use. One person may use buttons, another may prefer a menu, a third might use a touchscreen while a fourth would make use of voice control. Our choice of interface might be the infrared remote controller, the cordless or mobile phone or a computer or personal digital assistant. A manufacturer in Japan has even developed a user-friendly interface in the form of a cuddly toy pet, which acts as a memory jogger for older people.

Whatever we use as our digital home help as we grow old we will want convenience, familiarity and that they should be an extension of the ordinary activities of our day. We will also expect good design. Fitness for purpose and reliability are rarely the factors that differentiate the products of one manufacturer from those of another today. We expect design that reflects our lifestyle both in an aesthetic sense and in the sense that the device can be tailored to our personal preferences.

## **Adopting Inclusive Design**

The unique selling point for so many new devices when they are brought to market is their capacity to be tailored to individual choice. However, in this world of choice we are also frequently reminded of the impossibility of mastering the technique of operating the video. This black box mounted two inches off the ground with an array of confusing controls has become the butt of anyone who wishes to poke fun at the intelligence of home appliances.

Even if we arm ourselves with a remote controller to operate the record and playback functions of a video there is no getting away from having to get down on hands and knees to change the cassette. It is a rarity to find a manufacturer of televisions that has thought through the design of the stand to mount the video at a convenient level.

The difficulties in operating videos do not stop there. The development of user-friendly graphical interfaces seems to have passed most of these appliances by. Videos that are full of microchip technology should be capable of being configured to give high priority to ease of use. However, they have the reputation of being one of the least comprehensible appliances found in most homes.

The video serves as a lesson that inclusive design should be the third contextual layer for the development of smart home and telecare services. Products and services designed according to the concept of inclusive design should improve the opportunities for people to live on equal terms regardless of their ability, circumstances or stage in life. The key principles would be:

- ❑ Designs (hardware and software) that are flexible enough to be used without modification by people of the widest range of abilities
- ❑ Designs (hardware and software) that are capable of adaptation to suit people's varying needs,
- ❑ Assistive technologies that enable people with complex needs to make more efficient and effective use of their operating environment.

## **Someone Old with Something New**

The silver boomer generation will not be content to grow old as passive recipients of care. Neither will older people be content to settle for products and services that mark them out as a different group in society.

The way forward for smart home and telecare products and services is to become an extension of ordinary and familiar technology in the home. In this way they will complement the things older people choose as important to their everyday life and they will avoid the stigma of ageism.

We will grow old with our strongly imbued sense of independence and a desire to shape a silver culture that is as potent as the pop and consumer cultures of our former years. New technology industries need to develop their product lines and services to support active ageing and be relevant, accessible and comprehensible to all ages.

Our expectation today is to buy what we want, when we want it. We regard reliability as the basic standard and we differentiate on the basis of style. These things will not change as we grow old, although our priorities and tastes may. The challenge for services and industry is to identify older people's emerging care priorities and to seamlessly integrate the related services with familiar home products and services.