Home computers

Book section

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The history of the home computer provides an example of how a technology once felt to be far removed from the home and everyday patterns of life was subsequently developed, promoted and embraced – indeed consumed – as a product. For many the home computer continues to mediate a wide range of our consumer activities from eCommerce to online gaming.

The home computer consists of a technology originally called a 'microcomputer' to distinguish it from larger the mini-computer and mainframe computer. The most well known brand is the 'PC', based on Microsoft software, and hence these devices are sometimes referred to as PCs, using the brand name as a generic one. In many developed countries the majority of households now have a home computer, although even here adoption reflects socio-demographics such as age (fewer machines used by the older population) and socio-economic status (fewer used by those with lower SES).

In the early 1970s a variety of individuals, including some working within IT companies, had been building prototypes of 'small' computers – ranging from the size of a desk to that of a large television. But in general there were industry doubts about whether there would be any widespread interest in using such devices. This was in large part because the main trajectory of development in the computer field was towards larger, faster and more powerful machines, not smaller ones that could do less (the exception being mini-computers whose real-time operation offered a different functionality to mainframes). Hence, most the original interest in the possibilities offered by a microcomputer, a machine one could personally own and even build for oneself, came from the electronic hobbyist community. This included some working within the computer industry such as the later founders of Apple.

US hobbyist magazines portrayed computing as a new frontier for these enthusiasts and the first kit microcomputer to be sold within this community was the Altair in 1975. By the late 70s these machines were being sold for educational and business purposes, and in 1981 IBM launched its Personal Computer (PC), using Microsoft's operating system. While its success and that of other machines using this system helped establish the product within these markets, there were still doubts in the consumer electronics field about whether there would ever be a market specifically for a 'home' computer, whether it would be useful in that setting, although some hardware companies such as Tandy, Texas Instruments and Commodore persevered in trying to create this market. As had happened decades earlier in the case of radios, the design of microcomputers had by now changed, initially with the Apple computer, to make them aesthetically more attractive than the original hobbyist machines that looked more like pieces of technical equipment.

The history of home computers varied slightly in different countries. For example, in the UK Sinclair brought out the ZX80 and then ZX81, much cheaper than

contemporary US machines and marketed as machines to learn about computing. One key use of home computers in the early 1980s that helped to establish the product in the home was games-playing, where the home computer took some of the market dominated by games consoles. In fact, in the UK it took a decade before games-playing was replaced by word-processing as the major use (For a more detailed early history of home computers, see Haddon 1988).

Two developments in the 1990s helped to boost the adoption of home computers. The first was the move to the machine being 'multimedia', principally through the addition of sound cards and CD-ROM storage. The second was the use of home computers to access the emerging internet. Since that time the PC has remained the most common device, or 'platform', for accessing the internet, and hence for communicating and socialising online (e.g. through the emergence of social network sites) as well as for watching streamed and downloaded audio-visual material such a catch-up TV. But other, especially wireless, devices – from laptops to (increasingly smart) mobile phones and iPads – increasingly offer alternative platforms.

To put research on people's experiences of home computers into context, it was only in the 1980s that social scientists started to take an interest in the 'consumption' of information and communication technologies (ICTs) in general, and this applied to traditional media like TV as well as the telephone. As a new technology it was understandable that early social surveys examining home computer adoption from the mids-80s considered factors shaping the take-up of these machines (e.g. in the US Rogers, 1985, drawing on diffusion theory; in the UK Haddon, 1992). The early 1990s was also the period when the domestication framework was emerging, which generated research into how the home computer was fitted into the routines of the home.

From the start certain strands of that research were also interested in the consequences of home computers, for example whether it displaced time spent on other activities, including watching TV and socialising with others (e.g. Vitalari et al, 1985). These were research issues which in many ways prefigured the questions that would be asked of the internet a decade later. This also applied to the concerns over the home computers' 'addictiveness' that was explored in various studies as well as explorations in what home computer use could mean for people's sense of identity (Turkle, 1984).

As in the case of other ICTs, a number of these concerns related specifically to the potential consequences for children and youth (e.g. in the US Turkle, 1984) since young people were perceived as being potentially more open to formative influences at this point in their development. Since those early studies occasional work of children continues to appear.

Several studies dealt with gender and the home computer, with different emphases: e.g. mother's lack of leisure time constraining interest (Wheelock, 1992) or the differences in motivation arising from boys' and girls' gendered social networks (Haddon, 2004). One key focus of various studies has been the issue of male versus female engagement with technologies connected with the gendered process of identity formation (Turkle, 1984, 1988). Such qualitative studies, including ones examining ICTs more generally, have commented on gender interactions in the home, such as

competition for computer use. Meanwhile, more recent quantitative research has suggested a decline in gender differences as regards actual uses (Brynin, 2006).

There has been a trickle of home computer studies from the later 90s, including one book on the topic (Lally, 2002). But to an extent studies of the internet seem to have attracted research attention away from the home computer itself.

Brynin, M. (2006) 'The Neutered Computer', in Kraut, R, Brynin, M. and Kiesler, S. (eds) *Computers, Phones and the Internet. Domesticating Information Technology*, Oxford University Press, Oxford, pp.84-96.

Haddon, L. (1988) 'The Home Computer: The Making of a Consumer Electronic', *Science as Culture*, No.2, pp.7-51.

Haddon, L. (1992) 'Explaining ICT Consumption: The Case of the Home Computer', in Silverstone, R. and Hirsch, E. (eds) *Consuming Technologies: Media and Information in Domestic Spaces*, Routledge, London, pp.82-96.

Haddon, L. (2004) *Information and Communication Technologies in Everyday Life: A Concise Introduction and Research Guide*, Berg, Oxford.

Lally, E. (2002) *At Home with Computers*, Berg, Oxford.

Rogers, E, (1985) 'The Diffusion of Home Computers among Households in Silicon Valley', *Marriage and Family Review*, Vol.8, pp.89-100.

Turkle, S. (1984), *The Second Self: Computers and the Human Spirit*, Granada, London.

Turkle, S. (1988) 'Computational Reticence: Why Women Fear the Intimate Machine', in Kramerae, C. (Ed.) *Technology and Women's Voices*, Routledge, London, pp.41-61

Vitalari, N., Venkatesh, A. and Gronhang, K. (1985) 'Computing in the Home: shifts in Time Allocation Patterns of Households', *Communications of the ACM*, No.28, pp.512-22.

Wheelock, J. (1992) 'Personal Computers, Gender and an Institutional Model of the Household' in Silverstone, R. and Hirsch, E. (eds) *Consuming Technologies: Media and Information in Domestic Spaces*, , Routledge, London, pp.97-112.