Chapter 5  ICTs in Everyday Life: Existing Uses and New Encounters

This chapter investigates the circumstances in which people encounter ICTs, where they find out about them, and where they use them. It illustrates the many ways that we currently use ICTs, and the places, relationships and activities that bring us into contact with them. This includes direct experience at work, at home, through the media, activities related to special interests, and the experiences of others. I introduce the environments in which the respondents in this study used and encountered ICTs and then show the role of the social network in exposing them to innovations. This starts to show how an individual links together, on the one hand, various spatial and organisational domains of everyday life, and on the other, formal and informal networks of family friends, colleagues and other acquaintances. This chapter does not look in depth at the processes of adopting new technologies. Neither does it break down the types of technologies, services or uses into categories. It uses examples of whatever technologies or services people mention. Some may be ‘work’ technologies, others domestic, some multi-purpose, others, specialised.

Many new ICTs are developments of existing products: there are few really original products. Many people are aware of the general class of product for a long time, so it is normally the application or particular form of the technical artefact that is new. Examples include tele-shopping, electronic mail and mobile phones. For years we have seen images of ‘personal communicators’ in sci-fi movies, but with only a remote expectation that we would all have one, since they are just a few of many futuristic ideas that normally never come true. When it appears, the application or configuration can be profoundly different in consequences to earlier generation of a technology or service, a fact that may be immediately obvious, or only become apparent over time. The mobile phone is of course only a telephone, a technology already well integrated into our lives. However the development of the mobile phone has led to a significant number of completely new social and service features that even sci-fi writers seldom explored.
Nonetheless the continuity is striking, and a predominant use of the mobile is as an extension to overcome the limitations of fixed telephones.

The general message is that new product introductions are just part of a continuum, and most people are well aware of past developments, and approach new products with experience and knowledge. So many new products and services are announced and few come to anything. Successful products are often very slow to arrive, but are announced through the media, as prototypes, in fiction and in the military, years before, giving us plenty of time to get used to the concept, if not in actual configuration and implementation.

5.1 Encounters with ICTs

We encounter many new technologies in our everyday lives: at home, work, in the streets, in places we visit for holidays, on business, in public spaces, through conversations and the media. Depending on our activities and network we are more or less likely to be exposed to any particular innovation, and then more or less likely to take notice and be in a position where it makes sense to follow it up. Different occupations and interests make particular technologies more relevant for some people than others since many are designed for particular types of use or organisation. There are also other more generic technologies such as the telephone or the PC that are much more flexible in their use, and can be used or configured by users according to their particular interests and activities.

As well as being influenced by the activities that we or our community engage in, there is a personal component related to the interest in innovations. Some people appear to be more attracted to investigate innovations in general or to particular classes of innovations. A number of questions can be asked about individuals encountering innovations: how likely is someone to take notice of innovations when they encounter them? Is a particular individual the sort of person who looks out for innovations? Is this purely a personal issue, or does the social situation shape our likely responses to innovation?
Change in our personal circumstance is important in bringing us into contact with innovations. Change often involves us innovating ourselves, as we explore or struggle with a new situation. Adapting to new situations often involves finding out about factors in the new environment, looking for tools to manage change, new activities and relationships, and looking for ways to maintain existing relationships, values, and activities in the face of change. In this case, what sorts of circumstances make it more likely that we will encounter innovative ICTs? Not all innovations are the same of course, and the assessment depends very much on the individual, their values and activities. Some innovations can have immediate and profound implications, such as space travel, others, such as a new computer games terminal are completely trivial and uninspiring to all but a few.

As detailed in earlier chapters, Rogers proposes three different sorts of knowledge to do with new products: ‘knowledge of’, ‘knowledge about’ and ‘how it works’ knowledge (Rogers, 1995). Some people hear of an innovation, but for some reason do not follow that up by learning more. Others will find out more about it, either by choice or obligation, and start to know about an innovation. Adoption may occur after this. However reflecting on these interviews, it is would seem that this distinction between types of knowledge, although useful, is a slightly mechanistic explanation of what happens. With increasing visibility of new ICTs in everyday life, and the diversity of products and services, we are likely to gradually become aware of different products, their uses and users through many different channels, even if there is little active desire to engage with the innovation. If the person we are sharing a home or office with is using the technology or talks about it, then we cannot avoid its presence. There can be many different ways of knowing about and having knowledge of. It is perfectly possible to know nothing of how a technology works, but be very well aware of what it is like to live and work with it, through the experiences of others.

These issues will be followed up in future chapters, but help set the scene for the various situations in which people use and encounter new ICTs. Not only do I include examples from those who use ICTs, but situations where people come into contact with ICT via
our activities and relationships. Knowing of a product from the television can be very
different to knowing of it through a close friend.

There are a number of ways we can come into contact with new ICTs, either directly or
indirectly:

- We can hear about them or read about them in the media, including advertising
- We can hear about them through the knowledge and experiences of others
- We can see them in the local environment
- We can be given them to use by an institution, work, or family etc
- We can learn about them and how to use them in formal education
- A particular event brings us into contact with ICTs.

The first three are indirect methods of contact, and the way the adoption process is
usually considered as starting. In many cases the first contact can be being actually
presented with the product without prior knowledge (4). Formal education plays an
important role in introducing new ICTs too, in a planned and controlled way. However
we often encounter new ICTs in unplanned way, through contingent events that may
involve the other mechanisms, but in a way that is rather out of the ordinary.

In the innovative world of ICTs, there is considerable change in the actual products and
services on offer. There is a continual flow of new information and experiences we
could be exposed to. How do individuals engage with this? This question will be
addressed in later. For the moment I will show the wide range of situations and activities
through and in which people encounter new ICTs, based on the list of above.

First of all I look at the different activities of everyday life – work, home life, education,
consumer activity, civil life, and community and personal activities – and give examples
of people coming into contact with ICTs in these areas of their lives. Second I look at
relationships, and how our contact with other people introduces us to innovations.

5.1.1 Work and Employment

Work appears to be one of the predominant ways that people come into contact with new
ICTs, often by actually being given them to use. ICTs have been introduced into nearly
every domain of work, and into many organisations. The telephone has become one of
the main work tools, and the mobile phone has extended this for many. ‘Work’ is an area
where information and communication are often at a premium, and the technologies are a way of increasing or improving information gathering, access or control, of improving communications, and for production of ‘information’ product. Most implementations of ICTs have been in work environments – the local area network (LAN), main frame computer, the PC, enterprise data systems, EDI, generic applications such as word processing, spreadsheets, databases and design packages, and applications for specific functions and industries. More recently many industries are finding themselves increasingly valuing the information they product, and circulate, and oblige many employees to co-operate in formal information gathering and sharing systems.

Whatever someone’s occupation, they are likely to encounter least some ICTs. The workplace is a prime site for adoption of recent technologies, such as the multimedia PC and the Internet, although certainly not so dominant as for earlier generations of computer technology. While some people have had ICTs as an important part of their working environment for a long time, others are finding that is arriving now, with a computer landing in the office or desk top of many people for whom it is otherwise an anathema. Hitherto primarily those in technical jobs or bureaucratic administration might have been expected to deal with ICTs, but now few organisations operate without a plethora of business technology available to all.

In the study I found that the workplace was the main area where people came into direct contact with new technology, even if they had not heard of it there first. Of the 24 respondents, 17 were engaged in paid work, and 15 of those encountered new ICTs in their everyday working life. In general all the respondents were aware of personal technologies such as the Internet, PCs, mobile phones, etc. Many had been using with them on and off for many years. In specialised jobs people were exposed to technologies related to their tasks and organisation. Many of these organisations had been computerised recently. One example is the medical laboratory, where test machines and data logging had recently been computerised (Terry, group 3, interview 2).

A particular industry that is represented in the study is the education sector, where computers are now common in schools and colleges. Computers were introduced into
schools in the 1980s in the UK, so teachers of whatever age are familiar with them as a specific taught subject and increasingly as a teaching tool, in some disciplines (mostly scientific and technical), and age groups (primary and secondary). However in the past few years the hype of the Internet, and the arrival of multimedia machines targeted at all subject areas called for an relearning and reassessment of the place of computers in their classrooms.

Two primary teachers in the study Valerie and Amanda (group 1), who otherwise had little contact with computers, and preferred to avoid them in their private lives, had to use stand-alone computers at work, with CD ROM teaching packages and software for children, during the period of the research they were obliged to start using special software for writing reports. In fact they have access to and use media technology extensively:

Amanda: Video we have, BBC computer, Apple Mac, listening centre. We have a Camcorder in School, but I haven't actually haven't used it yet.

James: Do you use the TV a lot?

I use the TV and the video a lot. I video all the programmes to keep then in, like a video programme on last time to use this term, I find that quite useful. or in another year. So I use the TV and the video a lot. The Apple Mac I use.. I have it switched on, I have some child on it, at least one a day. I don't use the BBC [microcomputer] as much anymore, which is a shame, because it is still quite useful, but the Apple Mac seems to have taken over. Amanda group 1 interview 2

However their workplace also excluded them from using and experiencing many new ICTs. The school had no money for a network, or Internet connection, and there was certainly no need for current mobile communications.

Mary (group 3, interview 2), a special-needs teacher, had not had to dealt with computers, and they were not a part of her job, but in looking for a new job she discovered that computer skills and competence were on the agenda for recruitment, and she started to realise that she had to do something about it. Her friend Ruth (group 3 interview 1,2) also had computers and e-mail introduced into her office, but was not obliged to use them, she could pass off the tasks to a competent colleague. She had a go at using the Internet as well, by the second interview, and by then many of the students had access.
I have used it for the course, another colleague and I wanted to find out who the Beattie Committee were, so we tried to surf the net, but we didn't find it. Sometimes I've been less than impressed because of the way the key words can work. If you don't know what it is... it's not the answer to everyone's problems. The applications I hear people using most often are projects for school for the kids. [Ruth group 3, interview 2].

Another colleague Maura (group 3, interview 1 and 2), in the same college, was very happy to start using a computer when they were introduced, indeed she had to demand a new one. She also came across the Internet when she was moved to an office with a connection and was using her spare time to find out what is was about.

Fiona (group 1), who runs a nursing home deals with the technical resources all the time but is in no particular need of productivity enhancing information technology. As her own boss, no one is going to impose it on her either. This does not mean that in the course of her work she does not come across multimedia innovations. While getting a brochure made for her business Fiona found out about computerised desktop publishing:

Took a film, developed the pictures, gave him the pictures I wanted scanned so he just laid this picture on the scanner and scanned over into the computer and then it was printed onto a page and we moved them around. We wanted that one there and this one there and em, printed it all out and then I took it to the printer – [Fiona, group1 group interview 2 G1 : 704 - 704 ]

Trevor and Nigel (Group 2), who work in a relatively remote area have also discovered new ICTs though work. Desk top publishing, electronic graphic design and e-mail saves them a great deal of time and money and enables them to do many things that would probably be impossible otherwise. Trevor (group 2, interview 1) used computers in his first job in a bank, and quickly took up e-mail and desktop publishing when he moved to Scotland from London. Nigel (interview 2), who had hitherto avoided many ICT technologies, lives in a very small caravan on a remote Scottish hillside, and reluctantly manages to cram in an Apple computer and fax machine.

Their friend, Andy (group 2, interview 1), who wanted to explore sculptures that use sound turned to computers as a possible way of putting it into practice, that led on to exploring multimedia as a creative genre for his work.

Because I needed to do the sound one [artwork]. And the only way I could think of was doing it at the digital level. So I went on a course... That was 1990 and I saw introduction to computing. And also I didn't know how to switch on a computer. I didn't know anything about computers at that time so it was like, quite literally, feeling like a dinosaur. I really felt, you know, put me in a better situation for the jobs market and also get introduced to it so that I could possibly get the sound block done digitally. So
that I could do it myself instead of paying large amounts of money to other people to do them, which obviously they can't do anyway 'cos it's just like the equipment's not there. Andy group 2 interview 1

He does his artwork at home, and has his computer in the living room, as well as using computers at his paid-work place. When Andy moved to his new job in a College of Art he found everyone using computers:

“There's a lot of people, most folk are very competent in one or two packages. Ian is very competent with Director. I think just about everybody is fairly competent with Photoshop, because every artist who's worked with electronics, Photoshop is the major electronic software for any artist.” Andy group 2 interview 2

In the office of Group 2, the educational technology team are continually adopting new technologies. In general they choose what they need from the market, but the market and evolving technology and ideas about applications imposes technical change on them. They develop web pages, multimedia packages, set up distance education projects, and use the Internet the WWW and First Classii to find out information and communicate in their development projects.

Maurice (group 3), who teaches Unix and Java systems to companies, is also obliged to keep up with changes in technology to keep his job and is continually learning about new innovations. He also is developing a multimedia product himself and is constantly scanning for new ideas and innovations. Since he travels away for weeks at a time teaching, Maurice was obliged to get a mobile phone to keep in touch with his family. At home he has a small office with 2 computers and Internet connection, a fax and telephone, and piles of magazines and books on computers.

Terry (group 3), works in a biotech company, where new technology is very important, from chemical analysis to international communication.

Where you've got a situation where something may crop up em, and it's quite critical that you discuss this with the client but there isn't the time to get everybody together to sort of fly over to see them or vice versa and so it's actually quite useful. And also that our parent company is a global company so we do communicate with email quite a lot but occasionally it's useful to actually discuss things using this video link as well because you've got something physical to actually show them and talk about.

Those interviewed also knew others who had come to use the ICTs through their job. For example, Terry (group 3, interview 2) spoke of a friend taking up using a computer to do word-processing.
Well no, in fact I do know what he use it, he was asked to write a chapter for a maths textbook fairly recently and he's used that PC for that. He said he found it invaluable. He said if he had to hand write it and get it typed it would have taken him forever. Terry (group 3, interview 2)

The workplace and work activities give many people resources and the opportunity to exploit new ICTs, just as they use many other technologies, either as the basis of the work, or to try and improve their productivity, quality of service. The workplace also gives people a change to explore the on-line world for information and services not related to work.

5.1.2 Education

Another important arena for hands on contact with computers, multimedia and the Internet is by undertaking formal education. Schools, Universities and Further education colleges have had the teaching of information technology on the curriculum for many years, and it is in these institutions that many, particularly younger, people encounter ICTs. Of the 24 respondents, 9 were or had been in education very recently, and all had encountered new ICTs, especially the PC and certain applications, and been taught how to use them.

Lisa and Laura (group 1, interview 1 and 2) attend a private and a state school respectively in Scotland. Both have computer studies and business studies courses where they use computers and the Internet, and learn many basic skills. Laura, when she was at primary school was introduced to videoconferencing as part of an experiment to connect small highland primary schools. Now in senior school she is learning about all aspects of office software, multimedia packages, but not yet the Internet. At Lisa’s boarding school use of the Internet is not restricted to educational subjects. There are many foreign students, and they use e-mail to write home, and she was allowed to use the Web to do some research for a holiday to Africa. Ross and Aiden (Group 4) had both left school recently where they had used computers extensively, but were now unfortunately unable to access the facilities.

It is not only children that learn about computers in education. Retraining and later life learners find that returning to study means they have to deal with new technology that is now common place for the younger generation to learn. As mentioned above, Andy the
artist, was unemployed and took a course where he came across the Internet. He was interested in sound processing, it got him into the world of multimedia:

When I was in the multimedia course. We did the multimedia and we did HTML and we were sort of like told to surf the Internet and see what design things are. [Andy Group 2, interview 1: 719-719]

He then did a Masters of Fine Art a Scottish art college and was able to do his dissertation on interactive art and develop his ideas of ‘active’ art. He used various graphics and multimedia packages to create an experimental interactive artwork.

John (group 3, interview 1), when he retired, took an Open University course, and found he had to write essays on a word processor. He had spent his life as a test engineer in an electronics firm, but even so it was a struggle to go to classes at a local further education college and sit at the back of a class of young people learning WP skills. His daughter-in-law, Mary (Group 3, interview 1 and 2), age 40, who was sent on a higher education course from her work, also found she had to submit her essays word-processed, which made her face up to a technology that she had always ignored, despite the house being full of computers. She soon found the best way to deal with it was to get her husband Maurice to do the typing for her. Bob (Group 4, interview 1 and 2) also went to University in middle age to do a degree in electronics and discovered a wide range of information technology which he studied and used in his studies. He was introduced to the Internet which he uses from the University and local cybercafe for his work projects.

5.1.3 The Home and Domestic activities

At home there are less opportunities to experience new ICT technology and services directly without someone in the home making the choice to go out and bring them in. However with the development of communications technology the telephone and the Internet are bringing many new services into the home space, and in the last few years it has become possible to have access to information services, databases and communications that either have never existed, or only been available in organisations. Common technologies physically in the home were the home computer, mobile phone, the Internet, computer games, home banking terminal, cable TV receiver, VCR, answering machine, the telephone, and electro-mechanical household technologies.
Internet and phone services are innumerable, although at the time of the study they were only trickling into homes. These include home banking, advanced domestic telephony services, pay per view movies, Internet book and CD shopping on the Internet, e-mail and access to Internet based information services on the World Wide Web. At the time these were in there infancy. The home is also a place for heavy media use, and for discussion of the activities and relationships of family members, both inside and outside the home, which may often cover ICT use and knowledge.

Those people who did work at home had office technology in the house, and it became part of everyday life for all the household. In these cases the work computer was often kept in an office in the house, rather than in a more public room, therefore was not in full view (Aune, 1996). Fiona (group 1) had a computer in their house which all the family used. Terry (group 3) had a computer in the spare bedroom, which his wife was reluctantly trying to learn to use. She was not too pleased with him spending too long on the computer at home though. Maurice (group 3) has a whole home-office and moved one of his computers to the children’s playroom, as well as having a home banking terminal and 2 mobile phones. His children and is wife have all encountered the technology first at home and through their domestic life, although most of it is kept away from the children in his office.

“because Maurice is working on that I don't have a, I have not had until the kids got one downstairs, there's not been a computer in the social space in the house. It's been Maurice's working computer. Em, and I have thought that I mean if that one was just sitting there and he didn't have his own stuff all carefully shielded from prying hands I might sit and play with that of an evening and do things.” Ruth, group 3, interview 1

Ruth’s mother, Dorothy had got as far as learning to use an electric typewriter when she retired from her job as a doctor’s receptionist, but computers came into her life when her husband John started studying, and bought the computer. Now he uses the machine constantly, discusses computers with friends and family and she cannot avoid it. Trevor (group 2) who built up his art business has all his machines in an office in the house, and thus brought the technology to his wife who also works at home. His friend Andy (group 2) has his computer at home in the living room, in fact there was not much space for his
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chairs and television – the whole room is dominated by the computer, and piles of magazines, disks and books.

Television services are the most likely to be used and encountered in the home. Aiden and his family connected to cable television. Through this they have access to multichannel television and were introduced to pay-per-view movies. Their neighbour Bob (group 4) also bought cable television where his children where younger, but now they are older he no longer subscribes.

Teletext is an interactive service that has been on UK televisions for about 20 years, and is well used, but many people are still only discovering it now. It comes as an ‘add-on’ to the TV, that people only encounter as a result of buying a TV set. Helen and Mike (group 1, interview 1) bought a television and she uses the teletext service on it. Aiden (group 4) bought a new TV that has teletext, as did John, but both have problems with it.

Many activities such as hobbies and community activities bring people into contact with new ICTs. Most directly of course is when that hobby is the technology itself. Alec had always had an interest in electronics that he developed with his father, and over the years this had turned to computers, and he had built and used computer technology, both hardware and software from almost as early as it become available. He was later to turn this into his career. For other people it is incidental to another activity. Fiona, though her mountaineering came across GPS navigation aids, and the club Web site where members were supposed to post details of climbs they had done.

5.1.4 Shopping, Personal and Citizen Activities

There are many essential activities that take us out the home and out of work. Shopping of course is important for many people, but we also have to do banking, go to the doctors and dentist, deal with the government in various ways, use public transport and private transport facilities, deal with schools and other groups as parents, and many more things. Many of these organisations we deal with in this way have been computerised and are probably the places where we experience major information systems most frequently.
I know that a lot of the systems are all computerised and I've noticed that when you go into the doctors that there's not, your files not there anymore, it's all up on the screen. Everything's on disk in the computer. But I really don't know too much about the medical side. I know that nurses have said that their job's more technical than it was. [Amanda Group 1, interview 2: 348 - 348]

Thus even if we do not work in a computerised organisation, we are still able to directly see and experience large scale organisation information technology systems.

There are other types of IT system visible to the public as well. In Edinburgh, the new museum is a place to experience multimedia terminals for John and his grandchildren:

“In the new museum they have some very interesting, well laid out touch screens. Have you heard the guillotine? They have a touch screen in the front of it. A Scottish designed, Edinburgh made guillotine. On the touch screen if you push all the right buttons you can put your finger on the trigger and the blade in the picture roars down and you hear it. The kids love it!” John. Group 3, interview 2

John also notices terminals while travelling:

“I noticed out at the airport that you can check yourself in if you haven't any luggage. Like these automatic ticket machines in railway stations.” John. Group 3, interview 1

Supermarkets with the barcodes, scanners and loyalty cards are another place where we use and watch technology develop:

“I think probably more and more the shops use computers at stock levels don't they and the big supermarkets in particular. ...this is going back a bit with bar codes and they run through different stock levels. They're sent down south or something and it's all automatic re-ordering.” Fiona, group 1, interview 2

She also has a card for her local supermarket, and has noticed that there are more and more services it can be used for

“Yes, I have a Tesco card. Yes. Quite useful. I think eh, well they've got different ones now don't they. They've got the basic one and they've got one that you put money in every month and you use that and then you've got another one so that you can save, so you've got three sets.” Fiona, group 1, interview 1

In shops we do not have much choice about use of technology, just accept it, some more than others. Andy (group 2) has a loyalty card in his wallet just because the supermarket gave it to him for free.

Do you have a loyalty card?

“No for anything other than it was free. I don't think I'll ever get enough points to get anything worthwhile. I don't spend much in Sainsbury's.”

One UK supermarket gives shoppers like Maurice even more technology, and takes even more information:
“because I've got this loyalty card and they know about every single purchase I've ever made and they've got me down to a T because they're all about doing this self scanning stuff and you get a thing like that so you just stick the stuff in these wee boxes on the trolley, you don't have to check it out. So I mean it's absolutely brilliant. So there's technology in action.” Maurice, group 3, interview 1

Shops can also expose us to many new consumer products, but whether we take it in depends on our shopping habits and general interest. However this turned out not to a particularly important point of exposure to new ICTs, but they are available for consultation when some first hand information is needed. Alec for example, who is a self-confessed technophile will go to shops to find information about a product he is interested in buying:

Either magazines or I'll just go round the shop and hack around until I get the information I need in a leaflet. Well I've discovered they don't like printing the leaflets for items nowadays. Alec Group 2

Many people have a bank account and know about, or use, services such as cash machines, telephone banking and Internet banking:

“the Bank keeps sending me details about their 24 hour banking and phoning (Amanda, group 1, interview 1).”

In one area where the members of Group 4 live there is a cybercafe. It is the only café in the middle of their house estate, and is well known even if it is not used by many of the population. As well as offering games and Internet access it is a subsidised café and many children and adults go there just to eat at lunchtime, alongside the computers. Bob uses the Internet here, and sees he see other users using different services that he is not interested in, especially chat.

5.1.5 Encounters though the Media

Media use is an important activity for acquiring knowledge about product and use innovations, and it is though the media that it is possible to become aware of many innovations, and other people experiences and assessments of them long before they touch one’s own life directly. New ICTs have been extensively covered across media, and there is a great deal of advertising for consumer products such as Internet access, computers, mobile phones etc. Different programmes, magazines and newspapers give different coverage, depending on how they view their audience, and, thus exposure to ideas, endorsement etc will vary (McQuail, 1969). People use media very differently,
and take notice of things in different ways: it is quite possible to ignore or be unaware of much media coverage of a topic if one is not interested.

The study asked people about their media use, what newspapers and magazines they read or came into contact with, and their TV, radio and Internet use and also use. There was a wide range of engagement with the media, both general and specific to interests or profession. Some people hardly take any notice of the media, do not read newspapers, watch television or listen to the radio, others are self admitted information junkies, reading and watching all the time. The reasons for this range of engagement with media are various, and will be discussed later. Most people are fairly selective about what they consume, and some, such as the two sisters, Valerie and Fiona (Group 1), have quite negative attitudes about ‘wasting time’ with electronic media especially television, despite being keen on getting information from other media.

Advertising campaigns for multimedia related products and services are one source of exposure.

Em, I noticed the Intel Pentium 3 processor's coming out which is, because I always said about when the Intel Pentium 2 processor was out on the adverts I used to always have a wee sort of joke you ken, "och I'll no bother getting a PC because by the time I save up for one the Intel Pentium 3 Processor will be out" and now it is ken. [Aiden group 4 interview 2 :358 - 358]

Prime time TV advertising obviously raises awareness among heavy TV watchers like Aiden. However Aiden missed extensive advertising in the local paper for a Web TV style device. Fiona (Group 1) is not particularly interested in new technology, but is still vaguely aware of developments though the media.

…but they are a lot of new innovations I gather in the computer world, whatever they are selling, it tends to be what you don't want as there is something better coming, you could go on for ever going on for something better. But I think there is a whole new system coming it, it is a new set up, a new more information on the disk, I can't remember. I think there was a big selling campaign over Christmas (1996), there were a lot of old computers, outmoded ones, holding up some new innovation coming in Feb., March, so I am told this is what they are waiting for. [Fiona, interview 1 Group 1 : 342 - 342]

General news coverage of major product launches can get though to people who watch or listen to the news. The launch of digital TV for example, got considerable coverage as it is a product promoted by the television companies. However as Amanda (Group 1) points out, the advertising messages are not at all clear to a non-specialist.
They were advertising quite a lot. And I didn't understand at all what it was at first. I asked my uncle about it actually because I was interested because they were talking about clearer pictures and all this sort of thing. I didn't realise you had to buy a completely new tube set and everything but they're saying that once say that telly blew up we wouldn't even consider buying another one like that. You'd buy one that's got the gadgets. [Amanda interview 2 Group 1 : 222 - 222 ]

The newspapers have been picking up on stories that involve the Internet and other technologies for a few years, and these appear scattered throughout the paper, in business, news and technology sections. People can pick up on individual news items or just become aware of general developments through scanning the paper.

Yes, there was an interesting article about I think it was bed and breakfasts and a small bed and breakfast in Scotland how they'd advertised on the Internet and the amount of custom they had got through that and the article went on to explain about the benefit. I suppose it was a promotional article in a sense but the benefits of advertising. It was quite an interesting article. That was in the business section not the IT section. [Maura 2 G3 : 355 - 355 ]

Yeah, I've heard - I've not actually come across it myself because I don't use the Internet but I've heard of that. Roughly what I understand you can practically just about buy anything over the Internet. Get instructions to make bombs and things. [Aiden 2 G4 : 418 - 418 ]

In general, the media made people aware of innovations and helped them ‘know of’ certain products and systems, but failed excite much interest, or provide a very clear image of what was being developed. Reports of other technical innovations, such as biotechnology and medicine, seemed to leave a greater impression.

A specialist with interest in the field, such as myself, may have felt that the media was full of information on ICT innovation at the time, but many of the respondents hardly noticed it at all.

5.2 Social Network

Our own experience and activities are not the only way be come into contact with new technologies. We experience it vicariously through our network and through the media. In the previous section media use was seen as an activity that exposes us to innovations. Here I look at the role of the social network. We experience others integrating ICTs into their everyday activities, and undertaking new activities based around technology\textsuperscript{iii}. We also share learning and adopting with others, to different degrees, according to the situation and individual as well as the product. The importance of an individual’s multiple social relationships or networks is one of the key themes of this study. I divide
these relationships into everyday sociological groups – work colleagues, friends, the family (nuclear and extended) and acquaintances through other community and personal activities, although these relationships could be divided in other ways such as voluntary relationships and imposed relationships, everyday or occasional relationships etc.

5.2.1 Colleagues

Colleagues at work are an important source of information and experiences of new technologies. Organisations investing in new systems create the conditions for shared learning, and for local experts to advise colleagues. In a work situation involving the use and development of multimedia products, discussion and experimentation are generally going to be much greater than in an organisation where the technology is an additional tool and facilitator to the principal tasks and relationships. There is also a place for cross-company links with colleagues in other enterprises.

Alec ((Group 4), the technical specialist in the college, uses his existing network to learn:

“Yes. I mean over the years, I've kept track of what other companies are doing. I have contacts and I've still got contacts in all of the colleges, around Edinburgh anyway, and beginning to pick up contacts in medic and other places.” [ALEC 1 G2 : 148 - 148 ]

In fact the distinction between friends and colleagues is quite loose between organisations – Alec’s personal network is a quite heterogeneous:

Yes, I've got quite a good circle of friends and contacts, all from different areas of technology. Again, measuring up trends, what we think of new technologies coming along. It is a kind of technology watch. The technology affects different people in different ways, the way they work or are developed. [ALEC 2 G2 : 129 - 129 ]

Nigel, the techno-resistant artist, would have been quite happy to ignore computers, but for his work with Trevor:

Well we had a conversation about eh, I was doing everything here for work more and more and more. He would type things out on his typewriter and then bring them here for me to do on the computer, and it came to the stage where we were really on lift off point and I just said to him "this has got to stop. I am not doing this, I can't do this, we can't do that again." I said "Nige, you're going to have to get a computer, two of us need to be working on this." And he said "I had a horrible feeling in the pit of my stomach that you were going to say that." So he incredibly reluctantly got this computer. [Trevor 1 GR 2 : 423 - 423 ]
The relationships at work can also be with managers, clients, students and others who share experience and ideas, activities or an organisation. The contact with ICTs may be separate from the work relationship, and come up in conversation about something else. By the second interview Fiona was getting into conversations with others about the Internet, such as with the man preparing the brochure for her business.

I think Mike was talking about that [Web Publishing]. He's the lad that I was talking about with setting up pages on the Internet, Internet selling, he's all set up a page, got a local photographer Dennis Hardley, he's got some wonderful Scottish scenes and he's going to sell his Scottish scenes, photographs over the Internet so he's setting up pages with a selection of them so.

Andy made use of this colleagues, such as Alec, to help him learn about computers. He was also trying to get someone in the college to write him some software": Valerie and Amanda who work in the primary school work with the children on computers and through this they find out about the applications they use, who has machine at home, how they share them and who is missing out.

5.2.2 Friends and Family

Discussions between friends can bring up experience of ICTs both at work and in other domains. In particular, some of the men spoke a great deal about computers, while the women avoided talking about them, and switched off. For example, computer are an important talking point for Andy and his friend Trevor – when I went with Andy to meet Trevor that was the topic they immediately launched into. In contrast, Dorothy and Fiona both switch off when their friends and family start speaking about computers.

Amanda has a network of friends in a variety of professions, who discuss their work a great deal. Many of them have computers and talk about them, although it makes her switch off, however home computers are not common'.

I've got the odd, a few friends who do have a computer but ... his friends but - and my friend Jonathan who's a doctor, he's always can be found in his wee hole on his computer. You know, and he does, I mean if him and Ewan get together you know, just talk about the latest game or whatever. [Amanda2 G1 : 220 - 220 ]

Amanda shared a flat with an avid computer student, and this exposed her to the Internet and other aspects of a home PC she may not have otherwise have seen.

Ewan input photos onto his screen and copy them and have them on screen. He's done that with photos he's taken before. [Amanda2 G1]
Neil (Group 2) was a regular Internet user, but still learnt about new ways it could be used through friends and colleagues. Both Valerie and Amanda, the primary school teacher note the importance of childrens’ friends in getting access to home computers.

Friends can share lots of things about how they are coping with work, and the adoption of new ICTs are no exception. Terry and Mary (Group 3) even find themselves taking about computers with their least technophile friends.

Mary: I think quite a few of our friends on the Internet and send emails and all that. I mean I would say most of them are because all our friends are professional, aren't they, so they're all using.

Terry: Yeah. I would say that we're exceptional that we don't - there's only one couple I can think of that might be more backward IT wise than ourselves and that's only because they don't have a TV.

Mary: Who? Oh Brandon and Susie. Yes they still eat lentil soup.

Terry: Having said that, they have got a computer with a CD drive and it's on the Internet.

Mary: Brandon has. Susie -

Terry: Susie doesn't use it much but he certainly does. He's a maths teacher.

JKS: Oh right. So he uses it for work or just -

Terry: I don't know what he uses it for to be honest.

Mary: ... probably.

Terry: Well no, in fact I do know what he use it, he was asked to write a chapter for a maths textbook fairly recently and he's used that PC for that. He said he found it invaluable. He said if he had to hand write it and get it typed it would have taken him forever but he found that using the PC is great because he's got a package on there that's got maths formula in for example. He's found that quite useful and he sees this as another way of making a bit of money because there's going to be a whole series of these books coming out. So he should actually cash in on it. Susie his wife who's not that IT orientated, I think it won't be that long before she gets sort of interested because she's a botanical illustrator and em she could sort of scan some of her work directly into some sort of presentation. (Mary and Terry 2, Group 3)

However, although most of their friends use e-mail, they do not talk about ICTs very much. Some friendships are not always sources of information and sharing experiences. A particular social circle or relationship may not facilitate sharing, may restrict access to information and experiences, or they may avoid the subject in conversation. Some people it is a ‘boring’ topic to be avoided in outside work.

Well Mary Dewaracatch does a lot [talks about computers], she was a colleague but I mean I socialise with her sometimes so she's a bit of a friend. She's not ... it's just once a week. No I don't tend to be attracted to those kind of people, I think my friends are probably quite similar to me. [Mary+Terry 1 G3 : 1283 - 1283 ]

Maura is quite keen on using her computer, but does not talk about them outside work:
James: And do you have any friends who've bought computers or anything like that?
Maura: Not that I'm aware of, no. I mean most of them had computers already.
James: Do you ever talk to them about it, about them? Or is it something you -
Maura: No.
James: Ask advice?
Maura: No. [Maura 2 G3 : 195 - 205 ]

Valerie is similar:

Valerie: Some of the people who work with computers in places like Ferranti, and people doing research of different kinds. Mainly the people I know.
James: Are they good friends?
Valerie: Not the close friends, no, friends
James: Do you ever talk about it with them?
Valerie: No, just in a general sense, about how they are getting on, how things are going, not in the technological terms. [Valerie 1 G1 : 695 - 699 ]

By her second interview, she was beginning to hear people talking about the Internet more:

James: Do you notice people talking about it more, been more on the TV?
Valerie: No. When I hear about it, it's usually through people who have more access to ... technology, and talking about using it. But not roundabout me. Apart from more cafés opened up with computers that can use the Internet and so on. [Valerie 2 G1 : 513 - 513 ]

Valerie has seen friends using a digital camera, and this interests her, and has led her to find out a bit more.

I've noticed people, friends, using the digital cameras, had a look at them in shops which seemed very interesting, a good idea. [Valerie 2 G1 : 257 - 257 ]

Her sister Fiona is the same, as she starts to hear more and more about new ICTs:

I think probably all my friends, one or two of them, one in particular, she works, she's got her lap top and she works with computers, she's involved with teaching and she's involved with the university down ...London working with ophthalmology and teaching so she carries her lap top round. She talks a lot about it and I'm afraid I switch off. [Fiona 2 G1 : 97 - 97 ]

Dorothy [Group 3] is an older person, and mixes mostly with older people. As she says, they are generally not users of ICTs, with exceptions, and discussion of them is not really part of their relationships.

Not really. No, mostly our friends are retired. ... has got one in Glasgow but there again she uses it mostly as a word processor. No it isn't a big part of, I would say, the circle that we have. I think we're all just that wee bit older. Oh some of the male members of the church have computers and things like that but em, not.[Dorothy 1 G3 : 560 - 560 ]
Chapter 5: ICTs in Everyday Life

The family is clearly an important influence on new technology awareness. Much research has found the home to be an important influence on computer and Internet awareness for adults (Rogers, 1985; Katz and Aspden, 1997). For example, a 1997 study (Guardian 30 Sept 1999) claimed that the one of the most important predictors for Internet use was the having teenage children at home. Children in these cases are important, but whatever age they are, 4, 14 or 40. Other family relationships are important sources of knowledge, experience and contact. Partners and siblings having computers or mobile phones, or using and buying technology at work; children using games and computers at home; with friends and at school; parents buying products for children; children telling parents about new technology etc.

Aiden lives in a household where he, his father and his brother all have computer games consoles and television:

My dad's got a Nintendo 64. He got that just before Christmas. Because we used to have a NES, the old Nintendo, years ago it was a NES and em, one of the games for that was Griselda 2 Link and my dad that was his favourite game back then so the Nintendo 64 came in, a big thing about Zelda Links "OH I'll have to get it." So he's never off it. He's still playing it, he's been playing it since Christmas time. [Aiden 1 G4]

Amanda has an uncle who is her reference for new domestic ICTs, and with whom she can discuss innovations and see the new products he has bought.

Oh he's had it [ cable TV] for ages. He's one of these sort of people who gets everything when it comes out. He's got a huge long like screen and three video recorders and got cable and he's got all the surround sound and everything. [Amanda2 G1 : 124 - 124 ]

She had seen advertisements on the television for digital television when it was launched, but did not understand it, so he asked her uncle who tried to explain. It is quite common to rely on someone else in the family to find out about new technology. This happened in Fiona’s family. They wanted to buy a new computer during the 18 months between the interviews, but Fiona relied on her husband to decide which one. Fiona is aware of the importance of computers to her daughters, and knows that they are using them a great deal at school.

The young ones they, Laura, she's into all sorts of computers from games to messaging around with computers as well. The youngest one, Lisa, she's talking about, she's to do a computers studies sort of work study before she goes back to school so I've just been talking to my brother on the phone in the shop because I think that would be an interesting one for her to do, to go in and find how he uses
computers in his workplace. So that's what we were just talking about before you came in. [Fiona 2 G1 : 117 - 117]

Fiona and her husband approve of computers, but not too much of video games, but luckily for Laura her cousin has a console:

We have always gone out for our way not to [get a video game console]. Laura has a cousin who has got one, so she goes and plays. [Fiona1 G1 : 328 - 328]

John and Dorothy [Group 3] are kept in contact with developments in the Internet and computers by their family, especially her brother Eddie and their son-in-law Maurice.

Oh yes, very much so. He's an amateur, but he knows a great deal, he's got great pals in Eastbourne. He has a friend who makes a living by operating various financial statistical services for a chosen few clients. Eddie gets a download from him and any problems he just phones him up. I try and do the same thing with Eddie, but the snag is that I am so delayed, retarded and he's so advanced, that half the time he can't understand what the hell I'm talking about. However, he does a percentage of time say, you don't do that, you do this. [John 2 G3 : 46 - 46] iii

Dorothy, in particular, does not use computers but hears about them all the time:

Yes, I'm afraid so. And if you don't have a computer apparently you're out of the picture all together. The children all seem to have computers, they all seem to know how to master them. I'm still waiting for my first lesson that they promised me up there. The children were always going to show me how to do it. and they're so busy playing that em, 'You just do this' and of course they won't move out of the way and let me go at it at all [Dorothy 1 G3 : 512 - 512]

Dorothy is also introduced to 'gadgets' by her husband. And finds she has more than her other 'lady friends' just because of his interest.

James: Why do you think you've got more gadgets [than your friends]?

Dorothy: Well I use them more and my husband likes gadgets. Not that he uses them, he doesn't use them but he likes the result when I've used them.

James: Oh right. so does he say "why don't we get a microwave" or "this might be useful"?

Dorothy: Oh yes, it was his idea to get a microwave. I had never had one, I didn't know if I wanted one. Now I would be very sorry to part with it and we got one that does, it's a combined one, it's not just the simple one. You can bake in it.

Andy and his brother in law Jim talk about computers – he brings talk about computers into his sister’s house, whether she wants or not!

I mean Jim and I are always talking about computers and Caroline'll go 'oh boring, they're talking about computers again'. So I don't know just how much she's into computers but I think she is, she uses the computers at school.

Through our social network we hear about and see ICTs as much as through the particular activities we do. Our social network brings information and experiences
across boundaries into different domains of activity and into apparently separate parts of our lives.

These examples make it clear that dividing up the network into friends, family, colleagues and so on is an artificial division. The boundaries of life are permeable when it comes to conversations and sharing experiences.

## 5.3 Events

Particular events were important in exposing people to new ICTs, or to making decisions about them. However the respondents tended to speak about a range of small events occurring in a situation or relationship, so have been illustrated earlier. However some particular technology encounters stood out. These included moments when they experienced or learned about a technology, when it became particularly salient, they had a particular problem or developed an opinion. Fiona and her children remarked about an exhibition when they saw the Internet for the first time.

> Once a British Telecom thing in Edinburgh, so we went into that. What did you think? It though it was a bit slow. I think I as expecting something to be far faster, you don't know exactly what you are really getting yourself, and it really is very fast, if you think about the information and what is available. I think it, it was really for Laura, she was playing around on it, I maybe used it for 2 or 3 minutes, I sort of looked on. [Fiona1 G1 : 364 - 366]

Notably this was not a particularly positive experience, but it appears to have shaped their perception for several years.

Ruth and Maura who work at the further education college both knew about an incident involving the Internet at their college that caused considerable consternation and amusement, among the staff.

> We had a wonderful incident at work recently that caused us to spend a little time looking at the web. We had a guy about my own age with learning and physical disabilities. He was discovered to have opened up all sorts of illegal packages of disgusting pictures. This caused absolute consternation in the college because they thought you couldn't get to such hard core stuff, and it turned out, the tutor concerned was so busy sending emails to her son during class time, thinking all the students were happily employed doing things they were happy to work on their own, that she hadn't noticed. And he'd been printing these pictures off in the class! This is a guy in a wheelchair, the printer is several yards away. He was getting a buzz from the idea that people would see, but when it wasn't noticed, he was able to take these printed images home. There was a bit of trouble about a) how had he got into this. I guess there were questions asked about how it hadn't been noticed. He said obviously, I did it by accident. The college is very clear that if you do that kind of thing you should be automatically expelled. We said this guy needs some kind of therapeutic input, it's a huge life problem. So of course
we had to say how did he find these pictures. There's somebody off on long term leave at the moment because he was caught with a lot of stuff. [Ruth 2 G3 : 33 - 33 ]

Maura also gives an example of the problems she had getting on the Internet, and the affect it had on her continued use:

I wouldn't know how to get into it. I mean when I first got this machine I started on the Internet and it came up saying there is something illegal so I immediately got out of it but somebody told me that if you pressed the wrong button you can't do something it uses that word. I thought Oh my goodness where am I going and I just stopped. [Maura 2 G3 : 387 - 387]

5.4 Christmas: A Key Adoption Event

One particular annual event that involved ICTs that everyone mentioned, and which is therefore important to illustrate in more detail is Christmas. Christmas time is an important annual event in most people lives in this country. Not only is it a time that many people will buy new goods, or upgrade, but it is often a holiday time where people will spend some time learning new things, and spend more time with people they might not see very often. It is also a period when projects are finished and new projects started. New Year also brings resolutions to learn new things and make changes in life It is time for leisure, for catching up, and for spending time talking, reading, watching TV and playing games. Christmas gift giving adds a twist to the adoption of innovations. Families will have to make decisions together about making purchases such as a home computer, and may give each other consumer electronics – CD player, games, mobile phone etc.

In the survey many of the respondents bought ICTs over the Christmas period, and had some time to learn about them. Some also mentioned that is was a time when they watched TV and played video games more than usual.

5.4.1 Christmas gifts

Giving gifts is a complex ritual, symbolic and utilitarian process that considerably confuses the linear, individual adoption process. In general, Christmas gifts (or similar gift giving around other significant cultural events) are exchanges between people with close personal ties, especially family and friends. These gifts are often related to thoughtfully choosing a meaningful token for a significant other, but the Christmas gift
can also be the almost ritual annual investment in consumer goods, necessities and luxuries, negotiated between the gift givers, and informed by the offerings and persuasions of the market place, and broader social group.

Christmas gifts came up frequently in the interviews, in discussions about particular products, or more generally when the interviews were conducted around Christmas time (which included most of group 1, group 3 and group 4).

As I expand elsewhere in a more complete history, Aiden (group 4) mentions Christmas as being an important event in the adoption of ICTs, for him and his family: his father got a video game, and he got a TV.

He [Aiden’s father] got that [video game console] just before Christmas. Because we used to have a NES, the old Nintendo, years ago it was a NES and em, one of the games for that was Griselda 2 Link and my dad that was his favourite game back then so the Nintendo 64 came in, a big thing about Zelda Links "OH I’ll have to get it." So he’s never off it. He’s still playing it, he’s been playing it since Christmas time. [Aiden 2 G4 : 682 – 682]

Not only is Christmas a time to buy for other people. Aiden also got a Christmas pay bonus, and treated himself to a new TV (although it turned out he did not actually get the money, and was forced to cancel his holiday).

Well I got my bonus from my wages, I had about £100 more than I thought I would get and I had some money to spend and that and I thought och I'll just spend loads of money on other people for Christmas and that, bugger it, I'm just going to spend a lot of money on myself (Aiden 2 G4 : 94 - 94).

Helen (Group 1) used Christmas as an excuse to buy herself an electronic bread making machine. Note the influence of her friends in exposing her to the innovation. Unusually, bread making is her hobby and part time job– she bakes for her daughter’s retirement home and the local shop. In fact she has spend her whole life baking bread as working in the hotel she owned with her husband.

I bought a bread making machine, which is quite useful, make your own bread, you put it on in the evening and it is ready next morning

James: How did you find out about that

Oh I have seem them and I have heard people talking about, so I thought it might be quite useful

James: Do your friends
In the family in group 2, Maurice, Ruth, and their sons, Christmas, and Haneka are important times to buy presents for each other, and ICTs have figured high on the shopping list. Daniel, Age 7 likes this time of the year!

A remote control car. My best month is December, that's the only month I get presents. I get Haneka presents, I get Christmas presents and my birthday presents. I always get a wee thing when it's Joe and Ben's birthday. Last year I chose a wee Lego car which I had in Legoland as well, it was good. I always break things up and make them into my own models (Daniel 2 G3 : 228 – 228)

The first time I interviewed the family, they had given the children a computer for Christmas:

No, not really. What happened was my dad wanted to get the kids a computer and I weighed up all the options and decided the best thing to do was to sell him my work computer, put that downstairs, network it to the machine upstairs and effectively I've still got the use of it or a lot of the time I'm still not using it. But we personally will get the money and we can pay that too. Maurice 1 group 3

.... It's a way to get some money out of the business, I didn't say that. And the business will pay for a new machine Maurice 2 G

In a cross link with his work, it also gave Maurice a chance to upgrade his work machine. The second time was just before Christmas and Maurice was buying them new computer games, which they had really taken to during the year.

Not much, there haven't been many new ones at all, and between you and me, I bought... I saw some games they wanted and somebody who's a regular supplier has bootlegged it. I'll go into PC World later today for Christmas, spend £100 on games. Maurice 2 g3

On interviewing after Christmas, I discovered that Maurice had also bought his wife Ruth a mobile phone:

Our daughter has just been given one for her Christmas by her husband who already has one .. (Dorothy 2.2 G3 : 57 – 57)

Ruth’s colleague at work, Maura also got offered a mobile phone, but was not sure if she wanted it. In Maura’s household, with 2 teenage children, Christmas was also a time to buy a games machine and a computer.

James They [your children] have a Playstation?
Yes, but my husband is on that half the time anyway!

James: When did you get that?
At Christmas time. My husband said the kids wanted it. (Maura 1 Group 3 : 617 – 624)
Which is absolutely brilliant. And I’ve bought a PC for the house and the children were very anti because I had a little Mac that they were very familiar with and I said no it will be much better but they didn’t want it for Christmas so I just had to buy it anyway. And em, my daughter in particular was very against it and she spends all the time on it now. And my son has started. [Maura 2 G3 : 13 – 13]

Christmas was also the time they bought a video recorder:

Do you remember when you got the video recorder?

Yes, my brother gave it to me in Christmas 1984. I used it to tape cartoons for the kids, and hire cartoons. [Maura 1 G3 : 829 – 835]

Finally, Laura (group 1) did not get a Playstation herself, but at least her friend did, so she could go round to play on it with her:

Well, some of the other computer games are better. Playstation’s a good, my friend has got one. She got it for Christmas [Laura 1 G1 : 286 – 286]

These examples show that the Christmas gift is a rather complex affair, involving negotiations within and across generations in a family, interchanges between work and home, self gifts, the obligation to give a gift, giving old and new products, buying the latest off the shelf ICTs and investing in ICTs, as well as simply giving someone a celebratory and relationship affirming present. Particular products such as the mobile phone, or a computer are considerable investments for a family, and therefore it is not surprising that there is considerable discussion around purchasing them. They are also products that involve several family members using them.

5.4.2 Non-adoption at Christmas

While some people invest in new technologies at Christmas, others find think this is really the time not to buy. The high rate of technical change and Christmas interact in a peculiar way. Christmas is a time when shops and manufactures sell products planned up to a year in advance, and at high mark ups can put off people from investing at this time. After Christmas new model are introduced for the new year, and it is often possible to get older one’s at reduced prices, which add up to an incentive for some people to put off a purchase at this time of year.
Chapter 5: ICTs in Everyday Life

The one we have is probably fairly basic, I am not very conversant when it comes to computers. Laura and Ian, Ian went on a course in Oban, and the girls have done a lot of work and they know what they need to do, what they would like in a computer, but they are a lot of new innovations I gather in the computer world, whatever they are selling, it tends to be what you don't want as there is something better coming. you could go on for ever going on for something better. But I think there is a whole new system coming it, it is a new set up, a new more information on the disk, I can't remember. It was a I think there was a big selling campaign over Christmas (1996), there were a lot of old computers, outmoded ones, holding up some new innovation coming in Feb., March, so I am told this is what they are waiting for. (Fiona interview 1 Group 1 : 342 – 342).

5.4.3 Other Christmas Changes

Christmas shopping is also an activity that may tempt people to shop in a different way to normal. Buying many gifts, spending a lots of money, and buying thing that involve investment and learning may all be better satisfied by alternative shopping mechanisms.

For example, Ruth in Group 3

Do you ever use mail order
I hate that kind of thing, except at Christmas and that's when I use it in a big way.

How do you do that
Yeah, well that's how Christmas gets organised. First of all I take, for the kids stuff, Shona gets a shopping list and goes to the Early Learning Centre using their catalogue or a Boots catalogue, and then besides that I would use charity catalogues. What else have I done. Yes, that's it, because that's the only way to make Christmas manageable because Maurice doesn't take any part in that at all whatsoever. Not his religion but also just because Christmas is my thing, not his. [Ruth 1 G3 : 521 – 527]

The use of mail order shopping has a variety of benefits at Christmas – saving time, getting credit for expensive purchases that can be spread over the year, saving the hassle of going to the high street in December etc. The popularity of mail order is growing as many companies move into direct selling. Two ‘broad-sheet’ newspapers ran supplements in November 1999 on the variety of mail order sources of Christmas presents which is one indication of the growing appeal of this way of shopping among a broader group of customers than have traditionally been seen as the natural market for mail order shopping (Observer 11 November 1999).
5.4.4 Christmas use of technology

Christmas time provides a number of opportunities to use ICTs. Many people send Christmas cards or a family letter at this time, a major communication exercise for some people, and one to which ICT can be used to assist or facilitate. Other people, both adults and children, will use their holiday time to use entertainment technology and content heavily – computer games, the television etc. Christmas is also a time when families and friends get together and talk about what they have done over the year, and visit each other’s home, and will certainly see and talk about new ICTs that they have been involved with.

For Ruth and her family, these are all factors for Christmas use of ICTs. However there was a slight twist to use of the video and television. They used their video to record many films that were shown at Christmas, but did not have time to watch them:

.. Yeah, that I never watch. Yes, we do at Christmas but this Christmas we recorded less because we still hadn't gotten round to looking at the last lot. But yes, that's a way, if we know we're going to miss something we might tape something but again we're just so bad at just sitting down and watching it. [Ruth 1 G3 : 791 – 791]

Maurice also sent his Christmas letter by e-mail too.

No, just text. The last picture was Maurice's Christmas letter. [Ruth 2 G3 : 33 – 33]

Other traditional Christmas things are also moving into the computer world:

On my email I've got an advent calendar and it's a lovely advent calendar that came through and I liked it. I tried to put it on disk to take it home but it was too big to fit on a disk so I've just left it now. Leave it till next Christmas. Christmas as time to catch up, relax, be with other people. [Maura 2 G3 : 495 – 495]

However, for some people, struggling to get a computer based calendar to work is not a high priority!

The Christmas holiday was not so much a rest for Maurice and his father John, but a time to catch up missed work. In this case it happened that that involved computers.

A great granddaughter, wonderful. Number one grandson is doing a postgraduate course on computers at Stirling, but the impression I've got is that he was going on with his course very happily until he discovered that one third of it had never been put in front of him. I don't quite understand how it could happen, but it did. At least my son in law, who used to lecture in computer studies at Stirling, had him over at Christmas time and was coaching him. Apparently he was something like 5 weeks behind which could involve a bit of essay writing. He might just scrape through, because Maurice has been in touch with his buddies at Stirling and they are trying to push the lad. [John 2 G3 : 58 – 58]
Dorethy also gave an example of her family seeing what technology she had, and telling how to use it:

I have a camera and I took one, I took a few. I like to just snap unposed pictures and at Christmas I get a bit snap happy. At Christmas there was one of Ben and Ruth, and I think your nose was in it! Ruth said "Why don't you use your zoom?" I said "Because I don't have a zoom on this camera!" I think I've had it about 3 years, a nice simple Canon. But zoom seems to be the thing now, which is another bit of technology. I've got a built in flash. [John Dot 2.2 G3 : 397 – 397]

5.4.5 Christmas Events

Some events at Christmas, aside from the purchasing, of goods, watching TV etc, can be trigger points for change. The community events at work and at home can bring people together with new colleagues. Ruth’s department started to use more IT, and have a great deal more contact with their computer support colleagues, whom she refers to as ‘nerds’. The Christmas lunch was an event to bring them together on a social level:

Ruth: Och yeah. I mean there’s a limit to how many times they'll trail down the corridor but they'll tidy up your files and sort your bugs and things like that

James: Quite friendly

Ruth: Oh aye

James: That's quite lucky, you're quite lucky having them there

Ruth: Yes. Well my colleague was quite wise and he said let's invite them to the Christmas dinner so em, the nerds were duly invited and they're, no they're friendly bunch they're not very nerdish at all really Ruth, Group 3 Interview 2  [Ruth 1 G3 : 899 – 907]

Christmas is also an event in the work calendar, a time to finish off projects, as in the case of Noel (group 3):

I have put a web site up for the publishing company but not actually publicised it very much. Taken it one step further. That's the project really for the summer, is to make that. We've not really done that because we haven't got that many books to advertise. We've got 4 books in our portfolio. So there is not a great deal to push on that but as a 5th book comes along, hopefully in the summer, and looking at another project to finish about Christmas time. [Noel 1 G2 : 98 - 98]
5.5 Summary

The investigation demonstrated the range of situations and relationships that new ICTs were appearing. Work is obviously very important, and probably the main place we are exposed to ICTs, and are obliged to work with them. However through personal relationships we are also finding out about ICTs, and even having them brought into our homes. The media and other household members bring talk about technology into the living-room, and when we meet friends and family it is hard to avoid the topic in conversation, or steer the enthusiastic person away from their favourite subject. Christmas was identified as a key period in the year when many different factors come together: gift giving, investment in household goods, getting together with family and colleagues, contacting friends and changing routines, all of which are today tied up with the adoption and use of ICTs.

While many people are shown to be actively engaging with technical change, it is also clear that some people actively avoid any sort of information or discussion on certain aspects of new ICTs. There are a number of reasons given, but general it is because the find the subject boring, of no to interest to them, or they think they will not understand it. Dorothy is retired and reads the newspaper, but does not take any notice of articles on ICTs. Mary and her friend Ruth are both professional women who have never had a need for many ICTs except the telephone, and who avoid even the television. They have both been able to avoid thinking and engaging with new ICTs, but and are only now finding it difficult to resist, given the demands of others that they should be able to use many computer based applications. In the chapter on Non-use and Non-adoptions I will look in more detail at why and how people do not engage with particular innovations, and the relationship to their activities and network, while in the next chapter I look at how the pressure of work or home life eventually pushed many into enquiring about new ICTs and adopting them.