

## **Teleshopping for older and disabled people**

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# **Teleshopping for older and disabled people**

**An evaluation of two pilot trials**

**James Barlow and Mary Breeze**



**JOSEPH ROWNTREE  
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# 1 Introduction

The ability to carry heavy shopping bags is one of the first that is lost as age and frailty increase. Mobility and strength decline, sometimes to the extent that a trip to the shops becomes a major burden or even an impossible task. This is often a source of regret. As one lady of 84, a participant in the teleshopping trials described in this report, said:

There's nothing like going to the shop yourself. I'm really sorry I can't do that now.

This problem can be addressed in a number of ways. It is increasingly common for supermarkets to offer home delivery services and smaller shops sometimes deliver basic items. More mobile people can use local authority subsidised Dial-a-Ride bus services for transport from their home to the shops, and supermarkets may provide wheelchairs or, at quiet times, have staff available to assist with shopping.

Local authorities play a major role in providing community care services for older and disabled people, and home shopping is one aspect of the service they offer. In 2002, around 367,000 households in England received a home care service managed by local authorities. For an estimated 150,000 of these households, the service included assistance with shopping.<sup>1</sup> There are many more people who are unable to shop for themselves, but are ineligible for council care. These people are dependent on their family or friends, or on privately arranged care.

Assisted home shopping schemes, and help with the collection of pensions and payment of bills, are usually the responsibility of social services home care departments. However, these schemes are costly and organisationally complex, and use valuable home care assistant time that would be better spent on other tasks such as personal care and hygiene, or help with movement between bed, chair and commode.

This problem is becoming all the more acute as the number of older people living independently rises and social services struggle to find the necessary resources to support them. One response has been to reduce eligibility for home shopping services – before the introduction of the Fair Access to Care Services guidelines in April 2003 (Department of Health, 2002), anyone assessed as needing assistance with shopping would qualify for help (see Chapter 3).

New approaches that are able to address the shopping difficulties faced by people with limited mobility in a more cost-effective way are therefore needed. Some of these involve internet- or phone-based 'teleshopping' services. As well as its potential role in helping local authorities meet their home shopping needs, teleshopping may introduce the internet to new users, bringing associated benefits for access to information and advice.

The need for new solutions to meet shopping needs has not gone unnoticed by central government. The Social Exclusion Unit noted in February 2003 that home delivery services could help and proposed a model using 'booking and payment intermediaries' and delivery points to overcome the problems of access to the internet, and limited bank card ownership among people on low incomes (Social Exclusion Unit, 2003). As we show later in this report, major problems would need to be overcome if such a system were to be introduced.

Few local authorities have begun to address the challenges posed by the introduction of new home shopping services based around the use of information and communication technology (ICT). In collaboration with Bristol City Council and the Dolphin Society,<sup>2</sup> this research project designed and tested various models for teleshopping in Bristol. This has provided invaluable information on user needs, possible teleshopping models, and technology, financial and legal issues. A possible intermediate teleshopping model – to step in before access to the internet becomes more or less universal – has been identified. The project has also explored the technology requirements for a more sophisticated internet-based service that might be developed in the future.

In Bristol, the current home care shopping service is proving too expensive to sustain. There are also increasing numbers who are not eligible for local authority care, but for whom grocery shopping is a real problem. Internet and telephone shopping is widespread, but is not generally used by home care service users, many of whom belong to what is termed the 'e-excluded' population.

The project focused on Bristol because this is typical of larger urban areas faced with an ageing population and competing pressures on their social services. It should be stressed that the models for home shopping will to some extent need to reflect the social, economic and geographical characteristics of the areas they serve – what is financially viable in a large urban area will not necessarily be so in a lower-density, rural community or a small country town.

In Chapter 2, we discuss the history of teleshopping in the UK and elsewhere, and show how local authority social services departments have, in fact, been closely involved in the development of schemes for over 20 years. The growth of the internet and home shopping has renewed interest in social services led teleshopping and several schemes are currently being trialled. Chapter 3 explores the policy background. This is stimulating teleshopping in several ways. Access to existing social services home shopping services is being restricted, the ways in which overall care packages are funded are changing and the payment of pensions through a bank or other form of account is being phased in. Parallel to these policy

developments, Government is seeking to widen access to the internet and build public trust in it.

Chapter 4 describes the current home shopping service run by Bristol City Council and reports on a survey of users of the scheme. This confirms that the lack of access to computers or digital interactive TV and general inexperience of computers among the service users would cause problems for the introduction of an internet-based teleshopping model. In Chapter 5, the findings from trials of four different teleshopping models are reported. These are evaluated in relation to the current home shopping system. Chapter 6 draws together the issues arising from these trials and outlines an intermediate home shopping model, involving a simplified ICT-supported system based on intermediaries who handle the transaction, but without the need for individual service users to have internet access or use a bank card. Finally, Chapter 7 draws conclusions on future prospects for social services led teleshopping and argues that major supermarkets need to play a greater role in the development of new models.

## 2 Home shopping services

Since the internet developed, its use for grocery shopping has emerged as an important aspect of e-commerce. Of the 54 per cent of the UK population that regularly access the internet, almost half (47 per cent) use it for the purchase of goods and services and, of those, almost a quarter (23 per cent) have used it for the purchase of food and groceries,<sup>1</sup> largely through the mainstream supermarket shopping services. Tesco accounts for the largest share of the online grocery market, with annual sales of around £350 million and coverage of 95 per cent of the UK population, compared to £110 million for Sainsbury's, with 75 per cent coverage.<sup>2</sup>

Teleshopping has a long history, though, and a number of early schemes were led by local authorities as part of the social services provided to older or disabled people. This chapter discusses the development of home teleshopping schemes, focusing on examples that have been steered by social services. We then outline the home shopping models that are currently in use in Bristol.

### The use of ICT in home shopping

Home grocery shopping services using ICT have developed over the last quarter of a century (see Cairns, 1996 for a comprehensive list of early schemes). A very early example in the 1970s was trialled by Qube in Columbus in the USA, using cable TV. In the UK, early schemes include a collaboration between Tesco and Gateshead social services from 1981, which piloted the use of interactive TV, infrared wands and PCs in homes and community centres, before moving to predominantly catalogue and phone orders from homes (see case study 1). Another early service (Club 403) was provided by Carrefour and other retailers in south east Birmingham between 1983 and 1986. This involved interactive TV with a phone-line connection, as well as orders by catalogue and phone. Elsewhere in Europe, there were also developments in the early 1980s. In France, 30 retailers were providing services over the Minitel system from 1981. Other schemes in the mid-1980s involved interactive TV with a phone or cable TV connection (e.g. the Super-a-Casa scheme in Milan and Comprercasa service in Madrid, and a Dutch scheme involving interactive TV South Limburg and Amsterdam).

Cairns (1996) identified the provision of a social service as a rationale in a number of schemes, with several run either partly or solely for people with mobility problems. It is noteworthy that a number of early schemes in the UK involved the collaboration of local social services with retailers. These include the following.<sup>3</sup>

- Gateshead Shopping Service (Tesco and Gateshead social services, from 1981): see case study 1.
- Centrepoint (Morrisons and Bradford social services, 1985–90): home shopping and information service using interactive TV in community centres and homes, as well as orders by catalogue and phone.
- Asda Teleshop (Asda and Tower Hamlets social services in London, 1988–91): home shopping using interactive TVs in community centres and homes, as well as catalogue and phone orders, with in-store order point.
- Shopperphone (a local charity and Thamesdown social services, 1988): orders by post, phone and fax, using a catalogue. No longer active.
- PJs Dial & Buy (Tesco and Croydon social services in Thornton Heath, London, 1992): orders by phone or post. No longer active. Social services now recommends Dial-a-Ride to those requiring shopping or home care assistants shop for those who are unable to leave the house.
- Tesco and Ealing social services in London (1995): orders written out. No longer active. People asking for shopping are now provided with a list of accredited agencies. Home care assistants shop for people who also have personal care.
- Mother Hubbard's and Chiswick Social Services (1993): Mother Hubbard's collected orders, then bought and delivered groceries from various shops. Inactive since local supermarket started offering internet and telephone ordering.

Perhaps the best known home shopping scheme for older or disabled people is the Gateshead Shopping Service, a joint venture between Tesco and the local social services (see case study 1). The service was launched in 1981 after research revealed that 25 per cent of local people had difficulty in accessing grocery stores (Cairns, 1996; GSS, 1997). Cairns also found that some schemes were started in order to help maintain community shops and community spirit. For example, the desire to support two relatively small town centre supermarkets lay behind Somerfield's 'Black Knight' project in its stores in Bath and Keynsham (1992–93). Here, the supermarkets were developed as places to buy fresh goods, while customers could order other products for later delivery from a central warehouse.

### **Case study 1 Gateshead Shopping Service (GSS)**

#### *History*

In 1979, before the advent of online shopping, Tesco commissioned research into the shopping problems of people who were unable to leave their home. As a result, GSS was set up as a partnership between Tesco and Gateshead Borough Council. It initially provided a shopping service to 15 older people. It was originally funded by government and EC grants, the latter to help retrain unemployed people as personal shoppers. The Manpower Services Commission provided the Meals-on-Wheels vans. The scheme was staffed by volunteers and unemployed people on programmes of work. Tesco provided overall supervision. The service gradually expanded and the technology changed. The Council, which assumed overall responsibility for GSS in 1990, now manages and finances the scheme, with Tesco providing accommodation and one member of staff.

#### *Description of current scheme*

Service users are placed on GSS by social services. They are issued with a text-only catalogue, where items are identified by a four-digit number, and they are informed of the contact and delivery days (usually consecutive). An operator phones the service user and enters the item numbers into a customised database, which identifies the item, but not its price or its availability. Operators can print a single list for up to four service users, so pickers can shop for four people at a time. Individual lists are also printed to be delivered with the shopping. Pickers physically collect the lists and shopping is usually done the day before delivery, with perishable goods being stored at the appropriate temperature. Shopping is scanned through the till and a receipt printed, but no payment is made at this point. The delivery driver collects payment by cash, cheque or bank card, and will return unwanted goods to the store.

#### *Charges*

Delivery charge is £1 for all service users. GSS is considering raising this to £2 or possibly £4. The average order value is £24.

#### *Technology use*

A range of technologies have been used, as the service developed.

- Goods were chosen from a catalogue of 100 items, each with a bar code that could be read by an electronic wand attached to a cash register. The till was installed in a communal room in a block of flats and information was sent via the telephone to a computer at the store. This proved cumbersome.

*Continued*

- Community PCs were provided and were used by a GSS operator.
- Televisions were adapted to provide videotext, and were installed in communal settings and in individual houses. Both PCs and videotext were used for a few years, but inherent software design limitations prevented their further development.
- Neighbourhood ordering centres were closed and contact is now made by telephone. Lists are produced using specially commissioned software.

### *Range of goods offered*

GSS offers around 4,500 products in its catalogue, including items from the delicatessen, lottery cards and clothing. Other items can be ordered on request.

### *Number of users*

About 350 a week, with a total of 700 registered users.

### *Main lessons*

GSS is heavily subsidised by Gateshead Council. The estimated cost of running the service is approximately the same as for a traditional home care service, although Cairns (1996) noted that the subsidy costs were partly offset by savings in the wages of home care assistants. The financial input of the supermarket is minimal. Social services is now discussing reducing the size of the scheme. Cairns (1996) also reported that a major advantage of the scheme was the sense of independence it gave users, and the close personal contact between service users and delivery and telephone staff.

## **Social services led home shopping schemes using ICT**

Social services led home shopping schemes are fairly common in the UK and several models are in use. These generally involve combinations of assistance from social services, the voluntary sector and grocery retailers, and are currently organised in a variety of ways.

- Service users phone a supermarket, the shopping is carried out and delivered by supermarket staff, and the delivery charge is paid by social services.
- Social services staff phone the service user and carry out and deliver the shopping.
- Social services staff or volunteers phone the service user, then order via the internet and receive and deliver the shopping.

- Service users and volunteers use a local authority shuttle bus service to supermarkets or service users are driven to the shops by volunteers, who then help with the shopping.
- A supermarket home delivery driver collects the order, supermarket staff carry out the shopping and delivery is through the supermarket's service.

Local authorities have been behind a number of attempts to introduce ICT to home shopping services. These date back to Gateshead's use of bar code reader technology in the early 1980s (see case study 1). Other examples include the social services led schemes in Bradford, Tower Hamlets, Thamesdown, Croydon and Ealing. These were predominantly carried out during the late 1980s and early 1990s (see above). All trialled a variety of technologies including early examples of interactive TV, as well as phone and fax. All therefore predated the diffusion of the internet. As the internet developed in the 1990s, and as supermarkets began to introduce their own internet- or telephone-based home shopping services, many of the initial schemes were discontinued, but a second wave of trials has now emerged.<sup>4</sup> These can be categorised according to the technology used and the extent to which service users are provided with assistance in ordering their shopping (Table 1). All these schemes used various models for placing the order and carrying out the shopping and delivery. Their main characteristics are shown in Table 2.

As Table 2 shows, most involve the user ordering over the phone. Only in Rotherham do users shop online unassisted. Some of the schemes are pilots, where shopping is not the main focus of the project. In Rotherham, Leicestershire and Durham, participants are given access to PCs and provided with training. These projects are part of a wider e-government agenda, which concentrates on improving access to public services for those who are not natural users of ICT. Participants in all three schemes have also been introduced to online grocery shopping, with a view to enabling them to shop independently from home or from a community centre.

**Table 1 Categorisation of recent teleshopping schemes**

	<b>Assisted</b>	<b>Direct to store</b>
Phone	Epsom and Ewell (case study 2) Gateshead Newcastle Stockport	Cheshire Oxford, Swindon and Gloucestershire Co-op (case study 3)
Internet	Durham* Leicester* Rotherham (case study 4)*	

\* *Initial training provided. These schemes are intended to migrate towards unassisted direct ordering by service users.*

Table 2 Main characteristics of recent teleshopping schemes for older and disabled people

Scheme	Case study	Order placed	Order to store	Delivery	Payment	No. of users	Cost to user	Current status/reasons for failure
Gateshead	1	Customer phoned by SS	Customised software	SS	Cash/cheque/ card to driver	700	£1	Successful. In operation since 1980. Expensive for SS, which is now considering scaling it down.
Epsom and Ewell	2	Customer phoned by SS	Supermarket website	SS	Council bank card, then cash/cheque to driver	54	£3.60	Successful. Costs reduced due to good local co-operation with supermarket.
Newcastle <sup>a</sup>	1	Customer phoned by volunteer	Customised software + fax	CSV staff	User paid cash/ cheque to driver. CSV paid store account	115	Variable	Funding withdrawn.
	2	Customer assisted to shop online		Supermarket or CSV staff		15-30	Variable	Poor quality interface, lack of computer literacy, volume too low to interest supermarkets.
Stockport		Customer phoned by Easy Shop employee	Supermarket website	Supermarket	Age Concern bank card, then cheque sent to Easy Shop	125 per week	Supermarket delivery charge	Successful. Managed by Age Concern Stockport, funded by social services.
Oxford/ Swindon/ Glos Co-op	3	Customer rings supermarket call centre	Customised software + email	Supermarket	Cash/cheque to driver	1,000	£5.50	Successful, expanding. Financed by supermarket. Relatively high charge to users.
Cheshire <sup>b</sup>		Customer rings supermarket. Funded by SS.		Supermarket	Cash/cheque to driver		nil	Enquirers now given phone number of supermarket call centres. No SS funding for shopping.

SS = social services.

CSV = community services volunteer.

<sup>a</sup> Scheme operated 1997-99.

<sup>b</sup> Scheme operated 1993-2002.

All other schemes are currently operating (January 2004).

*Continued*

**Table 2 Main characteristics of recent teleshopping schemes for older and disabled people – continued**

Scheme	Case study	Order placed	Order to store	Delivery	Payment	No. of users	Cost to user	Current status/reasons for failure
Rotherham	4	Supermarket website	Supermarket website	Supermarket	Customer's bank card	15+	Super-market delivery charge	PCs and tuition provided to 650 users at home or in community as part of wider health and nutrition awareness project. 90 per cent have bank cards.
Leicestershire Care Online		Supermarket website	Supermarket website	Supermarket	Customer's bank card	0	Super-market delivery charge	PCs and tuition provided to 60 users at home to improve their access to care services, etc. Most popular use is for email. No interest in shopping due to wariness (or lack) of bank cards.
Durham		Customer phoned by SS	Supermarket website	Supermarket (SS pay for delivery)	Customer's bank card	3	nil	Low interest due to wariness (or lack) of bank cards.

*SS = social services.  
CSV = community services volunteer.  
All other schemes are currently operating (January 2004).*

However, online shopping has not proved to be popular. This is partly because of the lack of ownership of bank cards or wariness about using them online (Leicestershire and Durham).

## **Case study 2    Route Call Shopping Service (RCSS) – Epsom and Ewell**

### *History*

Since 1999, Surrey County Council has contracted out its shopping service for Epsom and Ewell to the local Borough Council. It is managed by Route Call, the transport services department of the Council. In 2003, the shopping service was changed from the traditional model to a telephone- and internet-based service. Sainsbury's was chosen as the supplier and an agreement was reached with the local manager, because conventional online ordering was unsuitable.

### *Description of scheme*

Referrals are made by social services and health professionals. Contact and delivery days (usually consecutive) are agreed with the service user. Delivery days are booked in advance on the Sainsbury's to You website. An operator rings the service user on the designated day and enters their shopping list onto the website. Payment is made using a council-owned credit card. Groceries are selected by Sainsbury's staff and are stored at the supermarket. An RCSS employee collects the groceries using a council vehicle and delivers them to the users. Payment is made to the driver by cash or cheque.

### *Charges*

£3.60 per shop. Average spend £26.

### *Technology use*

Supermarket website in conjunction with the telephone. If the website is unavailable, the operator writes the lists by hand and delivers them personally to the supermarket.

### *Range of goods offered*

Complete range. No catalogue.

### *Number of users*

About 35 a week, with a total of 54 registered users.

*Continued overleaf*

### *Main lessons*

- Service is subsidised by the local authorities. It is approximately 15–20 per cent cheaper than a traditional service. The supermarket provides the order pickers. Other staff, vehicles and equipment are provided by Route Call.
- Service is based on one store only and depends on the goodwill of the manager, who has made some changes to normal practice.
- The use of a council-owned credit card is crucial. There are only two card users and both have been required to sign a set of guidelines issued by the Council. The card issuer will ring the Council if the spend pattern is unusual. Since the service started, reconciliation of payments and invoices is out by about only 0.05 per cent.

### **Case study 3 Oxford, Swindon and Gloucestershire Co-op**

#### *History*

The need to release trained home care assistants from shopping duties was identified in Oxfordshire County Council's Best Value Review in 2000. As a result, the Council funded the start up of a scheme run by Oxford, Swindon and Gloucestershire Co-op. The scheme, which began in September 2001, is now entirely funded and managed by the Co-op. It involves several stores in a large area of central southern England.

#### *Description of scheme*

Some service users are referred by social services, while others refer themselves. Service users are given a catalogue and are able to place orders whenever they wish. The service user rings a central low-cost number and the list is sent to their nearest store by email using customised software. Goods are selected and delivered the next day by Co-op employees. The driver collects payment by cash or cheque.

#### *Charges*

£5.50 per shop. Average spend £20–30, variation £5–80.

#### *Technology use*

Telephone and email.

*Continued*

*Range of goods offered*

Catalogue contains the most popular in-store items. Other items may also be ordered.

*Number of users*

1,000 registered users.

*Main lessons*

Service is funded entirely by a supermarket. The delivery charge is relatively high, but demand is increasing. The local authority does not provide a shopping service in this area.

**Case study 4 Rotherham IT2Eat project**

*History*

IT2Eat is a three-year, multi-agency project, which began in 2001. It is funded mainly by the Government's Invest to Save Budget and aims to give information and support on healthy eating issues to people over 55 by providing IT access and training.

*Description of project*

The two main aims are:

- internet shopping – enabling people to use supermarket websites unaided
- healthy eating and food preparation advice – enabling independent access to web-based information.

IT equipment and training has been provided in over 60 individual homes and 16 community settings. Participants were selected following their response to publicity and from referrals from partner agencies; 40 per cent had used a computer before and all had clear views about their training goals. A mailshot of users of the social services department providing shopping and other care received a very low response rate. Identification of older people who were unable to leave their home was more successful through analysis of users of the library's mobile unit. Detailed evaluation of the impact of the project has been conducted on a sample of 41 users.

*Continued overleaf*

### *Charges for shopping*

Delivery charges are paid by users. Internet costs are totally subsidised from IT2Eat funds.

### *Technology use*

Both PCs and DiTV have been trialled. DiTV was not popular because of difficulties reading the text and limited availability of websites.

### *Range of goods offered*

Complete range.

### *Number of users*

The project reached about 650 users by August 2003 and aimed to reach a further 100. Thirty per cent of the sample group did their main shopping online, the majority (80 per cent) ordering from home.

### *Main lessons*

- Ninety per cent of clients report that IT2Eat has improved their quality of life. Emails are very popular but online shopping is underused.
- All were interested in learning to use IT, 90 per cent possessed bank cards and only 4 per cent had their shopping done by a paid carer.
- Most service users reached reasonable competence in IT after 16 hours of training. All are offered a minimum of 18 weeks' training.
- Supermarkets have not responded to requests to address the particular needs of this client group.

The principal messages from the experiences on past and current social service led schemes are as follows.

- Co-operation with supermarkets is critical. A strong partnership has been developed between Epsom and Ewell Borough Council and the local branch of Sainsbury's. In Oxfordshire, several branches of the Co-op work together to provide a shopping service independent of local authorities but aimed specifically at those unable to leave the home. The Gateshead Shopping Service is located within a Tesco store, but the retailer's support for the service has decreased over time. There are strong suggestions from both Newcastle and a failed shopping scheme in Stockton that volumes can be too low to interest most supermarkets.

- The shopping element has been underused where a shopping service has been linked to wider objectives – for example, the e-government agenda – as in Rotherham, Leicestershire and Durham. This is, in part, because of the lack of ownership of bank cards among those who need help with shopping. Another factor, apparent in Rotherham where the participants in the IT2Eat project were largely self-selecting, is that 89 per cent of those surveyed were able to shop alone or with a carer at the commencement of the project, implying that the need for an alternative ordering service was not great.
- Consideration needs to be given to the range of goods available. A large supermarket will stock 40,000 lines. Schemes that are catalogue-based will theoretically be restricted to much less than this (e.g. the catalogue for Gateshead Shopping Scheme lists 4,000). In practice, users of telephone-based schemes are able to order goods that are not in the catalogue, but people unable to leave their home may have little information about recent additions to the shelves.
- Evaluation of the Newcastle pilot pointed to cost, productivity and value for money benefits of a service based on the telephone and the internet (GSS, 1997).
- There is no single payment model, but most involve the delivery driver collecting the cash or a cheque from the service user.

### **3 The policy stimulus towards teleshopping**

Home shopping schemes provided by social services are currently under pressure because of new government policies that are affecting the eligibility of individuals to receive different care services, the way these services are paid for and the way pensions and benefits are paid. Together, these developments are impacting on the sustainability of existing home shopping services. However, this is also taking place against a backdrop of policy initiatives that are seeking to stimulate use of the internet for delivery of government services and commerce.

#### **Policy initiatives impacting on access to home shopping services**

##### ***Fair Access to Care***

From 7 April 2003, the Department of Health required councils to set eligibility criteria for services in line with their guidance entitled 'Fair Access to Care Services' (Department of Health, 2002). These criteria are now applied to social care and the decision about a person's eligibility for help from social services is made on the basis of risk to their independence if a service is not provided. The level of risk is determined by staff following an initial contact assessment. If someone appears to be in need of community care services, they are entitled to a full assessment.

Risk is categorised into four bands – critical, substantial, moderate and low – and the precise definition of each band is subject to local interpretation. In Bristol, as in most other social services departments, only people who are at critical or substantial risk are eligible for help. Unless the risk to someone's independence is within those categories, the Council is unable to provide a service directly but will offer advice and information to enable people to make their own arrangements. It is unlikely, but not impossible, that someone will be eligible for help with shopping alone. In Bristol, the current cost of agency care is about £12 per shopping transaction. People who receive the Attendance Allowance will be able to use this benefit to finance private help, but others will have to fund it from their pension or savings.

##### ***Supporting People***

From April 2003, government money has been available for the Supporting People initiative. Supporting People providers, such as social service and health departments, offer short-term assistance to help vulnerable people maximise the opportunity to maintain their housing tenure. Assistance with shopping needs is an eligible element of an individual's support package. However, the Supporting People

scheme differs from home care in that the aim is to work with the service users to promote independence and confidence in the task, rather than to perform the task for them. The social and health services funded through the Supporting People Grant will be formally reviewed in a rolling programme up to 2005. When reviewed, the contract may be renewed for a further three to five years.

### ***Direct payments of pensions and benefits***

Many older people do not have a bank account, preferring to pay for everything with cash. However, from April 2003, traditional pension books began to be phased out, in favour of paying all pensions through an account. New and existing pensioners now have a choice of three accounts.

- A standard bank account.
- A basic bank account, operated through a high street bank. Account holders are issued with a card that can be used to make cash withdrawals at a post office or cash machine. Direct debits and standing orders are possible.
- A post office card account. Account holders are issued with a card that can be used to make cash withdrawals at a post office only. Direct debits and standing orders are not allowed. Account holders can nominate a 'carer' to hold a second card on their account.

The cards issued for the basic bank account and the post office card account cannot be used to make payments online or in shops.

## **Policy initiatives promoting access to internet-based services**

Two specific issues that will shape the future development of teleshopping are, first, the extent to which access to the internet will broaden and, second, public trust in, and ease of payment of, online purchase of goods and services.

### ***Access to the internet***

The latest National Statistics Omnibus Survey (ONS, 2004) shows that, by the third quarter of 2003, 48 per cent of households in the UK (11.9 million) could access the internet from home, compared with just 9 per cent (2.3 million) in the same quarter of 1998. Sixty-four per cent of adults in Britain had used the internet at some time, an increase of 11 per cent on the number reported in October 2001.

Nevertheless, access depends very strongly on income – in the financial year 2002–03, levels of household access were lowest in the first two income groups (12 per cent and 14 per cent respectively). From the second decile onwards, the levels increased rapidly with income, from 14 per cent to 85 per cent for the highest income households. Age also influences levels of access. Some 21 per cent of those aged 65 and over had used the internet by October 2003 (although this is based on a very small sample size), up from 10 per cent in October 2001. Pilling *et al.* (2004) report that two-thirds of internet users in their survey of people with disabilities wanted to use the internet more, but the cost of buying a computer, of online access and of assistive devices was holding them back.

Government has adopted a variety of strategies for reducing the ‘digital divide’. These include the initiatives to develop public access points to the internet and projects to ‘wire up’ disadvantaged communities.

- *Public internet access points:* up to 6,000 UK Online Centres have been established in internet cafes, public libraries, colleges, community centres, village halls or anywhere available to the public, to provide local internet access to people who may otherwise not easily gain access to ICT. Research has shown that these ‘e-gateways’ can provide an environment within which informal learning and skills development can occur (Liff *et al.*, 1999). The authors of this research also show that users of public e-gateways were a more balanced cross-section of the population than omnibus surveys of internet use suggest. They argue that unsupported kiosk type access was uncommon, even in countries with high internet use, and used only by those already competent.
- *Wired up communities:* during 2000–03, this initiative piloted the connection to the internet of around 12,000 homes in seven disadvantaged communities, using a variety of technologies (e.g. standard telephone lines, broadband technology, digital TV). The focus was on improving opportunities by developing new ways of accessing learning, work and leisure services. The initiative has been evaluated by Devins *et al.* (2003) and Halcyon Consultants (2003).

At present, personal computers are the preferred method for accessing the internet, but in time other methods such as digital interactive TV and third-generation (3G) mobile telephony will grow in importance and broaden people’s options. Around half of the households in the UK are now watching digital television. The Government’s current strategy relies largely on a market-led, voluntary conversion to digital, and it is committed to a complete switchover when 95 per cent of consumers have a digital receiver in the home and digital TV is within reach of people on low or fixed incomes – probably around 2010.

As well as access to ICT to allow connection to the internet and emailing, accessibility issues also arise both through the ease of use of equipment and through the design of websites. Websites vary considerably in the ease and speed with which they are navigated.<sup>1</sup> There has been relatively little research on older people's experience of web interfaces (Czaja and Lee, 2003), although there is a huge body of knowledge on age-related changes in cognition and this is beginning to be applied to the design of websites specifically for older people (Morrell *et al.*, 2003). Research has highlighted issues concerning the design and usability of websites – for example, a national survey of 868 people (14 per cent over 55) found that users experienced problems in navigation, such as non-intuitive product category labels and hierarchies, and tended to use search engines rather than navigating through sites (Lunt, 2001). Research into website accessibility by the Disability Rights Commission (DRC) found that 81 per cent of websites fail to satisfy even the most basic Web Accessibility Initiative category and that they have characteristics that make it very difficult, if not impossible, for people with certain impairments to make use of the services provided (DRC, 2004).

Another access problem arises from difficulties in manipulating ICT by those with manual dexterity or visual impairment problems, as well as understanding and learning how to use it. It is hard to provide definitive findings because technologies are changing so fast. However, a 2001 survey (Freeman and Lessiter, 2001) found digital interactive TV was perceived by a sample of over 1,000 people to be slightly harder to use than a personal computer (and slightly easier than a sewing machine). A subsequent survey in 2002 found that 33 per cent of the sample of 1,333 users felt it was 'too complicated' and 25 per cent felt it was 'too slow and clunky' (Freeman and Lessiter, 2003). In her research with older tenants in sheltered housing, Sourbati (2004) found that internet access depended partly on assistance from experienced users.

The Disability Discrimination Act 1995 (Part III, Section 19) covers discrimination in relation to goods, facilities and services. This potentially applies to internet access through its provisions on access to and use of means of communication, and access to and use of information services. The final stage of the Act came into force in October 2004. Questions remain over the interpretation of the Act and the extent to which websites themselves or the services they provide should be universally accessible.

### ***Online payment methods***

The latest ONS National Statistics Omnibus Survey (ONS, 2004) shows that over half those using the internet had used it to buy or order tickets, goods or services (53

per cent). However, the National Consumer Council (NCC, 2001) notes that there is no guarantee that consumers will choose to use the internet for commerce and accessing government services, despite the efforts of Government to broaden the availability and use of ICT:

Using the internet is not just about having access to a computer, it is also about having confidence in your abilities and understanding your rights. Privacy and security are also major contributing factors to the reluctance of consumers to use the internet.

The NCC's research suggests that the groups most likely to need government services – those on a low income, older people and other disadvantaged groups – tend to be low internet users. These groups also show little motivation to try the internet and are less likely to have opportunities to learn the new skills that are necessary. More generally, concerns over the security of online transactions underpin the relatively cautious online consumer behaviour (NCC, 2000; Kingston, 2001).

There is also a specific problem faced by the current generation of older people in increasing this group's use of the internet for shopping. Payment methods all assume that people have a debit or credit card, which is frequently not the case for older people or those receiving state benefits (Pahl, 1999). Other proposed payment methods envisage that payments could be made in a number of new ways, such as 'e-cheque' or 'digicash' (Kingston, 2001). This issue was noted by the Social Exclusion Unit (2003), which argued that, while home delivery was a possible solution in areas where there was a lack of shops:

... this relies on users having access to information and communication technology (ICT) to place their orders and credit cards to pay for them. A large percentage of those on low incomes have access to neither. Furthermore the cost of home delivery (typically between £3 and £5) is often too much.

The report went on to say that the Government is interested in exploring innovative solutions, such as the use of 'booking and payment intermediaries' and delivery points. This model envisages the use of post offices, newsagents or community centres, with installed internet kiosks that allow users to place online orders, make purchases on behalf of users without credit cards and act as designated points for deliveries. The report suggests that:

Designated convenient points for home deliveries, such as community centres, within deprived areas, particularly in instances of low car ownership, would enable the cost of home delivery to be spread among users. It would also solve the problem of supermarkets that are often unwilling to deliver to low-income housing or that may only deliver at inconvenient times.

In summary, therefore, policy changes – along with the pressure of an ageing population – are rendering current social service led home shopping models unsustainable. This means that fewer people will have access to such services and more will have to pay for them. Developments in e-commerce and the availability of ICT will potentially facilitate a transition to a new home shopping model. Government is assisting in this process through initiatives to provide public internet access points and other measures. User interface issues remain, but some of these may be addressed through the Disability Discrimination Act. In time, the vast majority of the older population will have bank cards and the confidence to use them. In the interim, however, payment and internet access difficulties faced by the older population currently receiving social services led home shopping need to be addressed.

## 4 Bristol's home shopping service

In Bristol, which has a population of over 380,000,<sup>1</sup> some 3,650<sup>2</sup> households receive home care through the City Council. Almost three-quarters (71 per cent) is provided directly by the Council and the remainder is contracted out to private home care agencies. We estimate that approximately 1,500 people, spread throughout the city, receive a home care shopping service managed by the Council. An unknown number pay for a privately run service, or rely on the goodwill of friends or relatives.

Several supermarkets offer home delivery services in Bristol, dairies deliver basic items, such as bread and potatoes, as well as milk, and some smaller shops offer restricted local deliveries. Services provided by supermarkets are usually subject to a delivery charge, as shown in Table 3. The subsidised Dial-a-Ride bus is used by the more mobile for transport to the shops. Some supermarkets have staff available to assist disabled people to shop outside busy times.

At the time the project was conducted, the home care service in Bristol was divided into 28 districts, each managed by a team leader. A shopping service was provided to all those who were assessed as needing it, irrespective of whether they had other care needs, providing they were unable to get their shopping in any other way. The nature of the specific shopping service was determined by individual home care team leaders, and varied according to the geography of the district and the organisation of the team. Home care assistants always visit the service user at home to collect their list and money, shop at the supermarket and deliver the groceries with the change. This system is widely used by local authorities in England. In Bristol, two types of service are provided.

- Individual shop – a single home care assistant visits the service user and carries out the entire process, usually as a continuous activity lasting about an hour.
- Group shop – lists and money are collected from a group of up to 60 people and are stored overnight. A team of home care assistants shop and deliver the groceries for the entire group the following day.

**Table 3 Supermarket home delivery services in Bristol**

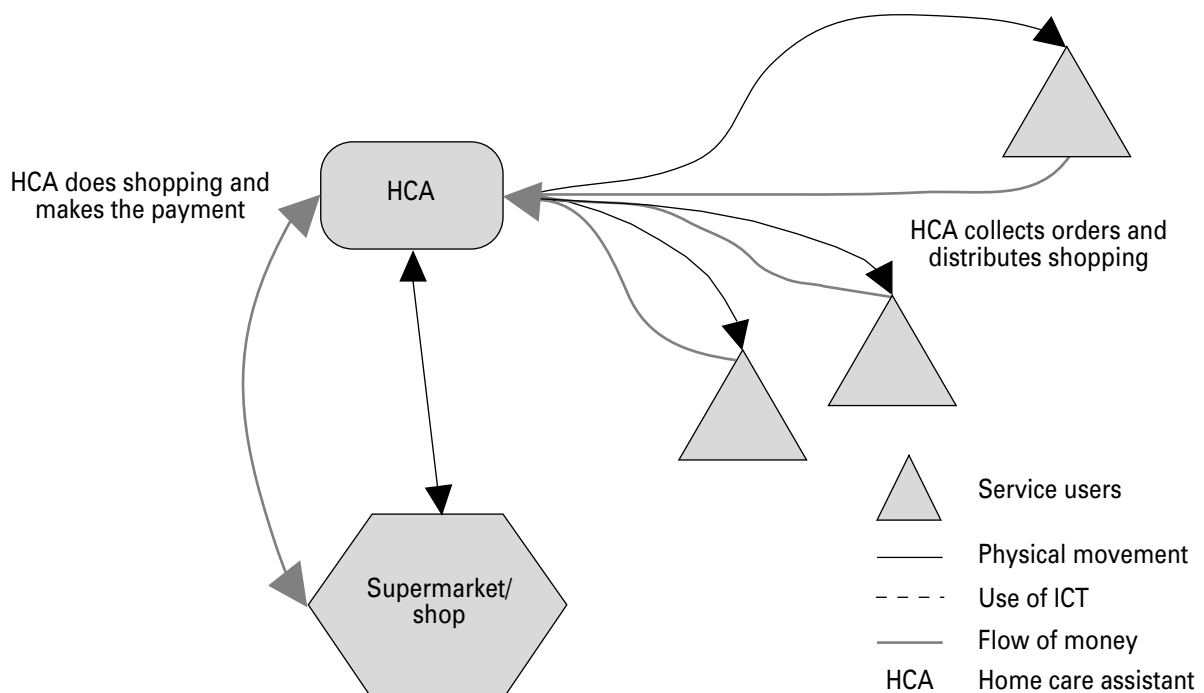
	Online ordering	Telephone ordering	Delivery of goods purchased in the shop
Asda	£4.25 (free over £99)	Not available	Not available
Iceland	Free – minimum purchase £40	£4	Not available
Sainsbury's	£5	£5	Not available
Somerfield	Not available	Not available	Free – minimum purchase £25
Tesco	£3.99–5.99	Not available	Not available

A district with a representative group shopping scheme was selected for the trial. The area contains approximately 60 clients, served by five home care assistants. The service is carried out weekly. Two home care assistants collect a list and the money to pay for the shopping from each service user. Five assistants carry out the shopping and deliver the goods using their own cars. The home care assistants sometimes unpack the goods, depending on the service users' needs and abilities. There has recently been a change to the service so that shopping is delivered the same day as the list is collected, rather than the day after. The current model is described schematically in Figure 1.

There is an allowance of approximately one hour per person for the entire transaction – from collecting the list and money to delivering the shopping. This is the same for both group- and individual-based models. In the case study area, the actual average is 42 minutes per client. Private agencies also allow one hour per transaction.

A charge is made for home care shopping. Service users are means tested for the whole of the care they receive, including shopping. In the study area, 40 per cent of users receive the service free and many others pay their weekly maximum (for one to one-and-a-half hours of care), regardless of whether they have a shopping service. The remainder (16 per cent) pay £7–10 per shop. Private agencies charge between £7.75 and £15.56 for shopping. These figures should be compared with the delivery charges levied by supermarkets (see Table 3) and with the average amount spent weekly by users of the home care shopping service (<£25, see overleaf).

**Figure 1 Current home shopping model – key processes and relationships**



The total cost per hour to Bristol City Council is approximately £20, including transport and other overheads, such as invoicing. The total annual cost to the Council is therefore about £44,000 in the case study area. However, some costs are recouped from charges.

Service users are very supportive of the service (see below). The home care assistants provide valuable social contact and support. As well as doing the shopping, they are able to assist with writing a list, and even checking cupboards to determine what groceries are needed and whether food is remaining uneaten. They also carry out small, but important tasks, such as putting out the rubbish and posting letters.

The model can also be beneficial to health and social services by preventing unnecessary hospital admissions. Home care assistants are trained to report changes in service users' health or behaviour, which is particularly important when no one else is likely to visit. They will also investigate and report the reason why a service user does not answer the door, which may be the result of a fall or illness.

There are, however, a number of problems associated with the current home shopping model. These can be divided into problems for the *individual service user*, problems relating to the home shopping *process* and *system-wide* problems.

### Individual service user problems

- Service users are not able to choose their supermarket. This decision is made by the home care team leader on grounds of convenience and cost-effectiveness. As one service user said, 'I've shopped at Waitrose since it opened. I don't like having to get my shopping from Tesco now.'
- The group shopping system is inflexible, giving the user no influence over the shopping day.
- Many service users are unable to update their shopping list and may have a limited diet because they do not have current knowledge of goods available in the supermarket. They also lack information about prices and special offers.
- There is heavy reliance on the home care assistant to select suitable substitutions when chosen items are not available. This sometimes works well: one interviewee said 'The same person comes to me every week, and I have established a good relationship with her. She knows the sort of things I like.'

However, this can be a problem with a group scheme, where the shopper may not be familiar with the client.

- Social isolation is an issue for many service users. Contact with the home care assistant on shopping days is valuable, but limited. As one person said, 'The home care assistant is very efficient. I would have liked her to stop for a chat but she never had time.'
- Given that the average cost of a weekly shop is about £20, a service charge of £7–10 is very high.

### **Process problems**

- Each user's shopping is passed through the till, paid for and supermarket loyalty points are allocated individually. This is time-consuming and there can be major delays at the till, particularly at Christmas and other holiday seasons. It can be frustrating for home care assistants and gives the public a negative impression of the service.
- The physical volume and weight of shopping carried by home care assistants is large, leading to the risk of back injury. This problem is exacerbated when delivering shopping to certain types of housing, such as flats, or areas where there are parking problems.
- Distribution from the supermarket to the client is made in home care assistants' cars. All goods are carried at the ambient temperature, which can lead to problems with frozen and chilled items. One home care assistant advised her service users not to order ice cream in the summer and a service user said 'I never ordered frozen food because I thought it might thaw before I got it'. Furthermore, there is a risk of damaging delicate goods, since they cannot be packed securely. Another interviewee reported 'Sometimes the shopping was squashed, especially sliced bread'.
- There is a security risk in collecting cash from clients, especially if pensions are collected at the same time. This was recently highlighted in Bristol City Council's lone worker policy.

### **System-wide problems**

- We estimate the total cost of the home shopping service in Bristol as around £1.5 million per annum, about a fifth of the total home care budget.

- There is a chronic shortage of home care assistants in Bristol, coupled with an increasing demand for the complex personal care that they are trained to provide. Home shopping presents a significant drain on home care assistants' time. However, as we have noted, there are social benefits from the interaction with service users when collecting and delivering their orders.

Bristol's current home shopping model has been in use for many years and is used by many social services departments in the UK. It presents some problems to the users, the home care assistants and the department, but it does provide users with social contact and allows them to pay for their shopping in cash.

### **Survey of existing users of the home care shopping service**

Face-to-face interviews were carried out with 31 people who receive help from the home care service for shopping.<sup>3</sup> Some also received help from friends or family, or paid for private help. Twenty-nine people answered all the questions and the other two gave partial answers. Questions focused on current shopping patterns, mobility, care, use of ICT, banking, socio-economic status and housing. The average age of those questioned was 82 – the youngest was 62 and the oldest 93.

The survey was designed to:

- provide a baseline assessment of people's needs and wishes regarding a shopping service, and their views of the current service
- explore service users' current patterns of social interaction
- provide data on the possession and use of items that might facilitate teleshopping, such as bank cards, telephones, digital television and computers.

Slightly over half the interviewees (55 per cent) were living in houses and the rest in flats or bedsits. Of those in flats, two lived on the third floor or higher. Eighteen of the 31 people lived in homes owned by themselves or their family and the remainder lived in accommodation rented from the local authority or a housing association. Nine people lived in sheltered accommodation with resident wardens.

## Current shopping characteristics

In many ways, the survey confirmed the typical picture of older users of home shopping services. The overwhelming majority (90 per cent) spent less than £25 a week on groceries and almost a quarter (23 per cent) spent less than £15. None of the interviewees was confined to bed or to a chair, and all were able to walk at least a short distance. However, one could not get as far as the front door and six found it difficult.

Almost two-thirds (65 per cent) went out at least once a week, but 42 per cent wanted to go out more. Most of these felt they would need transport to go anywhere. About a third also said they would like to see more people. Most had contact with a family member or a close friend at least once a week. Many contacted, or were contacted by, someone every day 'to check that I'm alright'.

Most (84 per cent) of the interviewees thought the current home care shopping service was good or excellent. There was little desire to use supermarkets other than the one used by the service and little call for the use of local shops, although some people said they would rather use an independent butcher than buy meat at a supermarket. The service users had various ways of shopping for non-grocery items, including mail order, use of family and friends to take them to the shop or to shop for them. None of the interviewees said they had no means of buying other things.

The majority were able independently to write their shopping list and to unpack their shopping. Those who were unable to write their list, or who needed help, tended to have problems with their hands, such as arthritis, and were unable to hold a pen easily. Some needed help with unpacking the shopping. These were unable either to stand for long enough or to reach their cupboards easily. One interviewee needed help to unscrew bottles and jars, and the home care assistant would loosen them for her.

The survey also explored the extent to which interviewees had access to the key services or technologies that underpin teleshopping: a current bank account, bank or credit card, telephone, personal computer and digital interactive TV (see Table 4).

Interviewees were also asked about their interest in learning how to use a computer, with a view to providing them with basic skills for internet-based shopping. A large proportion (21 people) said they would definitely *not* like to learn to use a computer and many laughed at the idea, saying they were 'too old'. However, five said they would be very keen to learn – one of these was 92 years old.

**Table 4 Access by survey respondents to services/technologies required for home shopping**

Item	Per cent having access	Notes
Current bank account	77	Some of those had previously had a bank account (e.g. when they were working), but had since closed it. Many of those who had bank accounts used them only infrequently.
Credit or debit cards	33	There was a general mistrust of both bank accounts and bank cards – many preferred to deal only in cash. Some of those who had credit or debit cards used them only as cheque guarantee cards and others had not used them at all.
Telephone	97	Only one person did not have a telephone. Of the others, 87 per cent had no problems in using the phone and said they were quite confident about using it.
Digital interactive TV	6	Only two people had digital television at the time of the survey (November 2002). They liked it for the extra channels provided, but did not use its interactive facilities. Neither knew it could be used for shopping.
Computer	7	Four people had used a computer before and 11 had used a typewriter. Of the four who had used a computer, two had used it for word processing, one for ordering stock and one had been on an introductory course. One person owned a computer, but said that it no longer worked.

### Summary

- Home care service users are very satisfied with the shopping service they currently receive.
- Some would like to go out more – barriers include lack of transport, lack of facilities such as toilets and concerns about ill health.
- The lack of access to computers or digital interactive TV and general lack of computer experience, coupled with near universal access to the telephone, suggest that a telephone-based home shopping service is of far greater value in the short term.
- A teleshopping service that involved the use of bank cards would exclude many people. However, as the direct payment of pensions becomes established, bank cards will become more familiar and their use may become more widespread among this group.

# 5 Dolphin Society/Bristol City Council teleshopping trials

In collaboration with Bristol City Council and the Dolphin Society, the researchers worked with users of the home care service and other older people to design and test models for teleshopping:

- assisted online shopping, with the home care assistant visiting the service users with a laptop
- 'virtual shop', where the home care assistant and the service users meet at a community centre to place the order online
- standard supermarket telephone shopping service
- council-run telephone ordering, where the home care assistant rings the service user to take their order.

The trials were evaluated by comparing them with the current home shopping system. This included perceptions of the quality of the service (measured by asking service users to score different aspects out of five) and cost-effectiveness (by measuring the time taken to complete each shop).

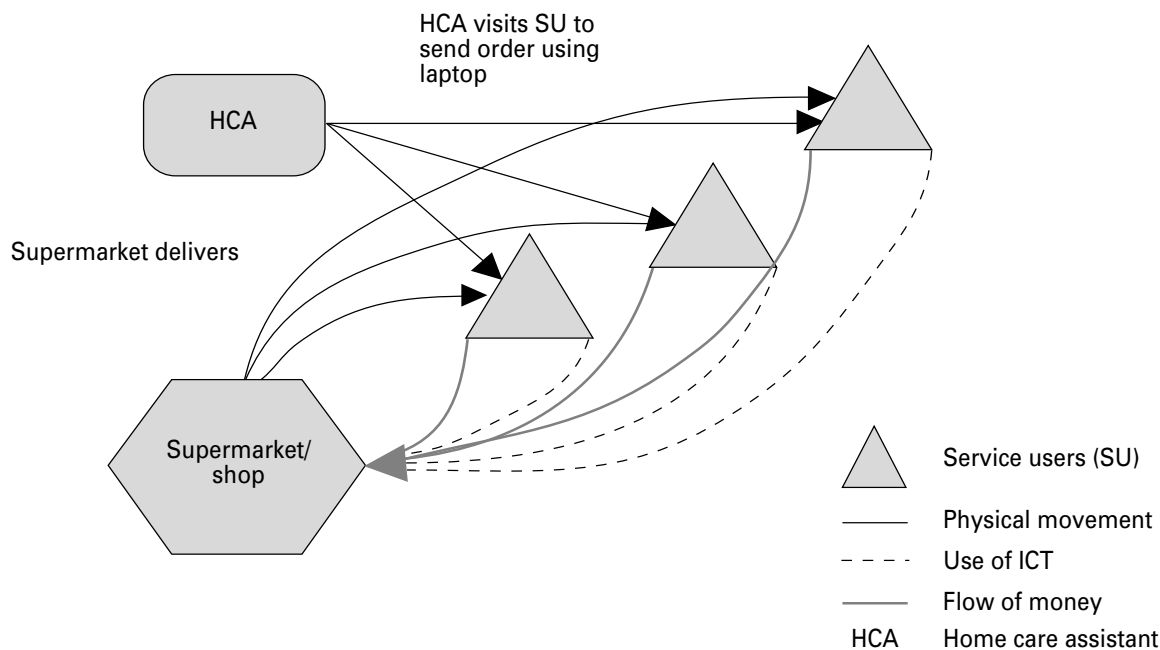
As well as these trials with service users, on three occasions the researchers carried out a 'dummy' shop, using a standardised shopping list, with a digital interactive TV shopping service run by one of the major supermarkets.

## Assisted online shopping

In two trials, a laptop computer was taken to the flats of residents in sheltered accommodation. The laptop was plugged into the service user's telephone socket and the project worker – as a proxy for a home care assistant – placed the grocery order online, in the presence of the service user. Each trial involved a different major supermarket. Payment was made with the service user's bank card. Delivery and internet charges were paid by the Dolphin Society. The model is described schematically in Figure 2.

Each trial lasted six weeks and involved four participants, who were all female and varied in age from 80 to 91. Fifteen shops were made in the first trial (T1) and 23 in the second (T2). The participants all normally received their shopping from the supermarket used in the trial. Five used the home care shopping service, one paid a private carer and two struggled to shop themselves.

**Figure 2 Assisted online shopping – key processes and relationships**



Key findings from these trials are summarised in Table 5. The background data are presented in the Appendix (Tables A1 and A2, and corresponding Figures A1 and A2).

**Timing and cost of service**

The average duration of visit for both trials (36 events) was 58 minutes, excluding travelling time.<sup>1</sup> This compares unfavourably with the time of 60 minutes, including travelling time, which is allowed for the current system.

**Table 5 Key findings from assisted online shopping trials**

	T1	T2	HCA visit
Time taken (mins per shop)	76	49	60
Staff cost (approx.) (£) <sup>a</sup>	39.05	26.63	20.00
Service/delivery charge (£) <sup>b</sup>	5.95–20.62	6.26–14.26	0–10
Need for bank card	Yes	Yes	No
Customer satisfaction	Good	Good	Excellent
Availability of small quantities	Poor	Good	Good

*a See Table 6.*

*b Bristol City Council service users pay for home care on a means-tested scale of £0–10 per hour. Supermarket T1 charges £3.99–5.99 for delivery and supermarket T2 charges £5. Internet connection is 4p per minute.*

The average time spent ordering online was 49 minutes in T1 and 31 minutes in T2. There was considerable variation in both trials, which was not well correlated with the number of items purchased. The differences between the trials can be explained partly by the operator's increasing familiarity with the system, but was also due to problems with the website and servers that occurred during events 1, 4, 6, 11 and 13 in T1, and event 11 in T2 (see the Appendix, Tables A1 and A2).

The approximate cost of an assisted online shopping service is shown in Table 6. In each instance, the total costs were considerably higher than the current system. This is for several reasons.

- If assisted online shopping were adopted on a long-term basis, it is likely that the computer operator would be paid at a higher rate than a home care assistant – 60 minutes of home care assistant time equates to 44 minutes of computer operator time at 2003/04 scales. The staffing costs of this system would therefore be higher than the current one.
- The delivery charges, which varied from £3.99 to £5.99.
- The average internet connection charge (calculated at the BT daytime rate of 4p per minute) was £1.54, approximately 7 per cent of the price of the goods.

Together these form a significant proportion of the average shopping basket, which costs £21.94, and add to the cost of running an assisted online ordering service.

**Table 6 Cost of assisted online shopping service (£ per shop)**

	T1		T2		Current system
	Home care assistant	Computer operator	Home care assistant	Computer operator	Home care assistant
Staffing <sup>a</sup>	28.92	39.05	19.72	26.63	20.00
Delivery <sup>b</sup>	3.99	3.99	5.00	5.00	
Internet <sup>c</sup>	1.96	1.96	1.26	1.26	
<i>Total</i>	34.87	45.00	25.98	32.89	20.00

*a Assumes travelling time of 11 minutes. Rate includes mileage and all overheads. Home care assistant £20 per hour. Computer operator £27 per hour.*

*b Supermarket T1 delivery charge is £3.99–5.99, supermarket T2 delivery charge is £5.*

*c Assumes call rate of 4p per minute.*

### **Customer satisfaction**

The trial participants all completed a questionnaire face to face with the project worker. They were asked to score their previous method of shopping and online shopping out of 5, as indicated in Table 7.

Seven of the eight rated online shopping very highly and were especially keen on the level of choice. Typical comments were:

I liked being able to see what was for sale. It meant I had more choice.

Sometimes [*supermarket T1*] substituted things, but the driver always pointed these out to me and I could send them back if I didn't want them.

I liked having time to talk to the person who worked the computer.

If I had my own computer I would use it for shopping.

It's a very good idea, having the shopping delivered. I can't manage heavy bags now.

However, there were some problems. On occasion, goods that had been ordered were not delivered. This could be highly significant for people who relied on the service and who would be unable to make a second order that week. As this service user put it:

Two weeks running they did not have the bread I ordered and they did not send any bread at all. This was very difficult for me, as I am unable to go to the shop myself. The first time, I rang to complain and they assured me it would not happen again, but it did.

**Table 7 Service users' satisfaction ranking of assisted online shopping**

Service user	Previous shopping method	Overall impression	
		Previous shopping method	Internet shopping
A	Home care	5	5
B	Home care	4	5
C	Home care	5	2
D	Private carer	5	5
E	Home care	5	4
F	Home care	5	5
G	Self	3	4
H	Self	2	5

The inability to select and order small quantities of goods was also highlighted by service users, illustrated by these comments:

I couldn't buy everything you can get in the shop. I like loose meat and loose sausages, but you can't buy these on the internet.

I enjoyed shopping on the internet, but it is geared to people who are doing large shops, not to people who live alone. Most of the special offers are for buying large amounts, for example a dozen toilet rolls.

Problems also arose because the supermarket pickers were unaware of the service user's specific needs. For example, in one case the home care assistant always chose items with a long 'sell by' date but the items ordered online sometimes had a shorter 'sell by' date. In another case, there was insufficient detail on the supermarket's website and the service user was unable to open the cans of tonic that she (and the assistant) had thought were small bottles.

Service user C did not like online shopping. She felt uncomfortable using her bank card and said:

I would rather stick to the system I have known for years. I always buy the same things. I'm not interested in special offers or in buying new things.

### ***Delivery***

Deliveries were usually made by supermarket staff, who wore uniforms and carried ID cards. However, they were sometimes contracted to other organisations, which made identification difficult. Service users reported that the delivery drivers were helpful and polite. Comments included:

The shopping was delivered by several different people. They were all helpful and offered to put it away for me.

The same delivery man came three times. He would ring on his mobile to say he was outside the door.

Some delivery problems were experienced, though. Delivery was very late on at least three occasions during T2 and service users were not always notified in advance. Two deliveries were 24 hours late and, in one case, the service user was left with no bread for supper. In addition, the system of booking delivery slots did not allow co-ordination of times and although service users living in the same block sometimes booked the same delivery slot, the deliveries were not necessarily made consecutively.

### ***Payment and financial security***

A credit or debit card is essential for online shopping. However, as we have seen, low ownership of these cards among home care service users (see Chapter 4) means that only a minority could use an online shopping service.

Concerns over the security of the transaction were highlighted by this trial. In particular, financial security is questionable when a bank card is used by a third party. The financial institutions contacted appeared to have no clear policy on this issue, but were of the general opinion that it is acceptable to use someone's bank card on their behalf provided the holder's consent is obtained in advance and they are present during the transaction. However, the computer operator/home care assistant would be open to charges of financial abuse if the card were misused.

A particular problem with supermarket T2's website was identified when used in this home shopping model. The card details are stored with the user name until the delivery is made. The computer operator/home care assistant could place a second order with the service user's bank card and, using the option to change the delivery address, have it delivered elsewhere. The service user would not discover this until they checked their next statement.

### ***Internet connection***

All the trial participants used BT as their phone provider. Internet connection through their phone line worked well, except where the service user was on a payment scheme for those who spend less than £10.86 per quarter on calls. The use of this phone line had to be discontinued because the internet cost alone would exceed this limit. Internet connection using a mobile phone was also investigated, but a GSM card would be too slow and GPRS<sup>2</sup> would add significantly to the costs.

Where participants were living in sheltered accommodation, it was originally intended to encourage social interaction by using the laptop in a communal lounge. However, the lack of available telephone sockets meant that this was not possible.

### ***Accessibility***

Two service users in each trial showed interest in looking at the websites and one in each reported that they found the text too small to read. The magnification software LunarPlus used at ×2 magnification led to a marked improvement for both people, who were then keen to continue reading the website on subsequent visits. The other service users asked the researcher to read out the relevant information. One person was registered blind and, although she had sufficient vision to read printed text in

96-point font, she was completely unable to read text on the 14-inch computer screen. The remaining three were not interested in looking at the website and actually preferred to sit some distance from it. This was probably because of lack of familiarity and of confidence with ICT equipment; as one of them said, 'It's too much for me – you do it'.

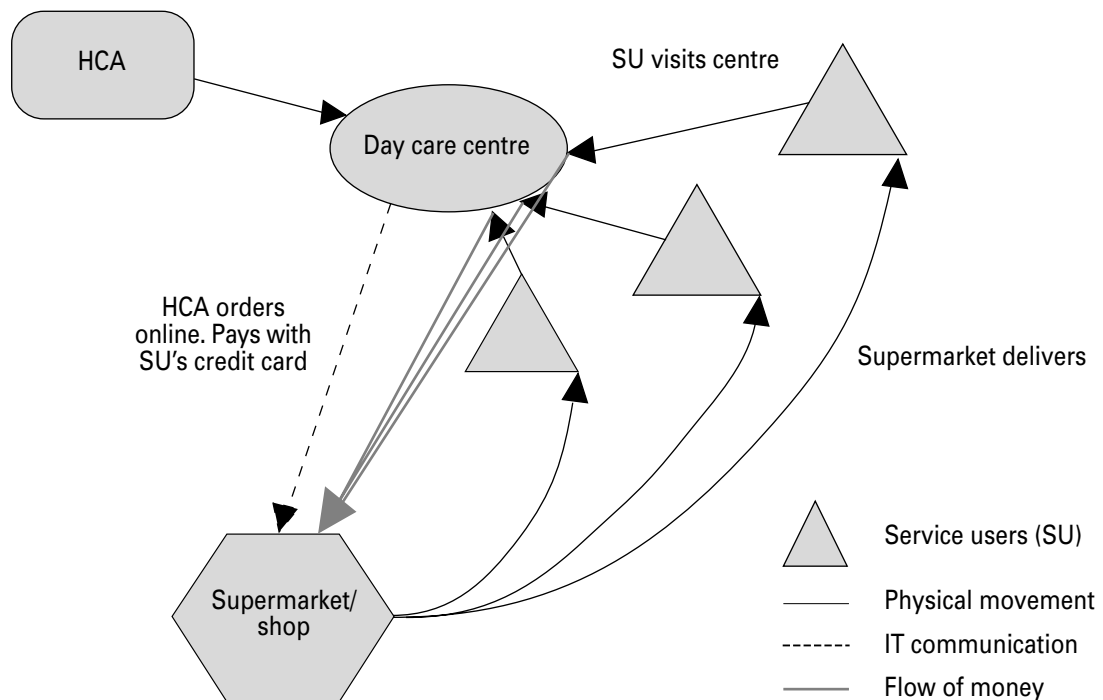
### 'Virtual shop'

This approach involves service users bringing their shopping lists to a centrally located computer, for example at a day centre. Users are given assistance to order online, paying with their own bank card. This model is illustrated in Figure 3.

The two local authority day centres for older and disabled people in Bristol already had computer rooms with internet access available. However, it was not possible to set up a 'virtual shop' at either centre because insufficient users possessed bank cards. Instead, the model was tested from the researcher's office with a group of colleagues as proxy for the service users.

A total of 14 shops were made for four people over a five-week period with two different supermarkets, chosen by the service user. Delivery charges were paid by the Dolphin Society. The background data are presented in the Appendix (Table A3 and Figure A3).

Figure 3 'Virtual shop' – key processes and relationships



The average time per order was 32 minutes, which is considerably shorter than the 60 minutes allowed for shopping under the current system. The service users had a choice of supermarkets and were able to make informed choices about purchases. However, a number of problems with this model emerged during the trial.

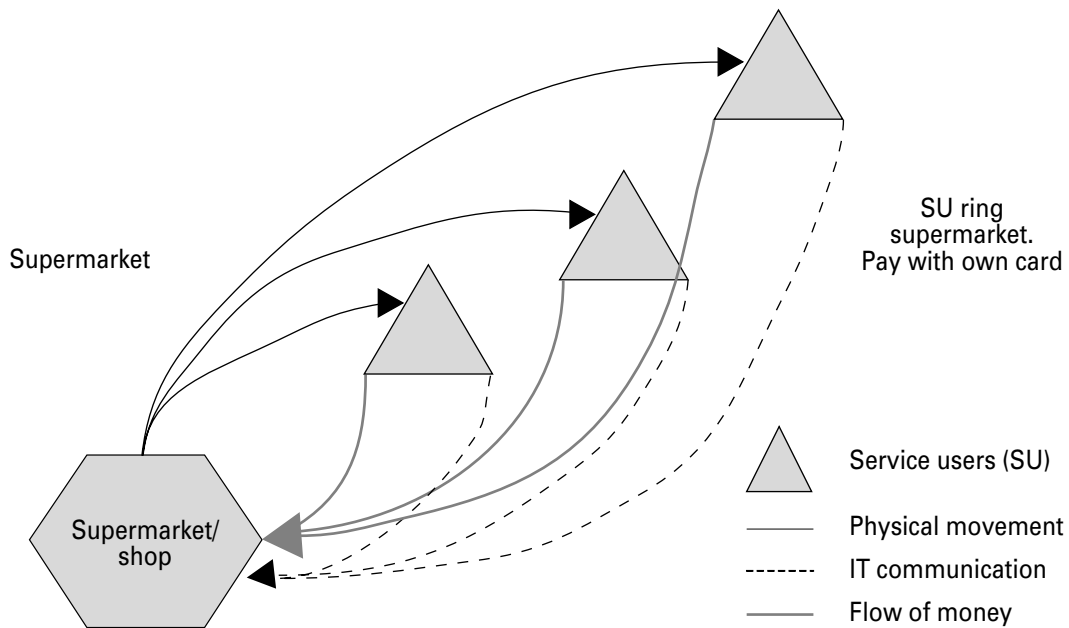
- Low ownership of bank cards among the user group: it might be possible to pay with a centrally held credit card, but there is no current procedure to link values appearing on the statement to individual transactions. For example, if six service users placed orders with the same supermarket on one day, it is not possible to link with certainty the six values on the statement with the six individuals placing orders. This problem could be surmounted with assistance from the supermarket, but co-operation was not forthcoming.
- Timing: most people are driven to the day centres in council-run minibuses and the timetable at the centres is constrained by transport considerations. Approximately four hours per day would be available for shopping, so a home care assistant would be able to place six to eight orders per day. This is not an improvement on the current system.
- Transport: a virtual shop could be set up in any community centre. However, service users would need transport to access it and our research shows that, if offered a choice, most would prefer a visit to the supermarket.

### **Standard supermarket telephone ordering**

Two supermarkets offer a telephone ordering service in Bristol, and other parts of the UK, that is open to anyone. One accepts payment by bank card or cheque, while the other accepts only bank cards. This trial was undertaken to determine the feasibility of recommending this type of service to potential or actual home care service users.

Three of the service users who participated in the T2 online trial wished to try telephone ordering with this supermarket, with a view to continuing to use the service independently after the trial. Three other people, living in a different sheltered housing scheme, also expressed an interest. The six service users, whose ages ranged from 77 to 91, were therefore assisted to register with the supermarket's telephone ordering service and to place orders on the phone. Delivery was made directly to the service user. The trial continued for five weeks and 12 transactions were made (excluding the initial transactions when service users were registered). The model is illustrated in Figure 4 and the background data are presented in the Appendix (Tables A4 and A5).

**Figure 4 Supermarket telephone ordering service – key processes and relationships**



**Timing and cost**

The average registration time was nine minutes and the average time taken to place an order was 15 minutes. This corresponds to a call charge of 60p, which, together with the delivery charge of £5, represents a 24 per cent increase in the basic cost of the average basket of £23.60. However, it compares favourably with the £7–10 home care charge levied on service users who do not receive any benefits.

**Customer satisfaction**

All the participants appeared able to order confidently, without prompting, on the telephone, although one doubted her own ability. At the end of the trial, one participant said she would cancel her shopping with home care and order over the phone, because it gave her more independence. One asked to be shown how to order online and said she would continue to order in that way because ‘I like a challenge’. Two people said they would definitely use telephone ordering occasionally and one said that she might. Typical comments were:

It beats going to the shop. It’s such a lot to carry home.

The people on the phone were very nice and efficient.

It’s a relief to feel I have another way of shopping if I can’t go to the shops myself.

Phone shopping is easy and I have been spreading the word amongst my friends.

### ***Delivery***

The same standard delivery system was used as for the assisted online ordering and the same issues arose – the drivers were reported to be helpful and one opened a wine box for a service user who was unable to do it herself. However, deliveries were sometimes very late and one service user felt that ‘The ordering was better than the delivery’.

### ***Payment and financial security***

Service users’ bank card details were stored under their customer number, which was requested prior to each order. Service users were not informed of the need to store this number securely and this caused problems for one participant. This system would not be suitable for those who do not possess the necessary degree of organisation.

### ***Accessibility***

One service user on this trial was registered blind and had little sight. She was able to produce a shopping list, but needed assistance in recording her customer number. This was printed by the researcher in 96-point font. She was not able to read information produced by the supermarket.

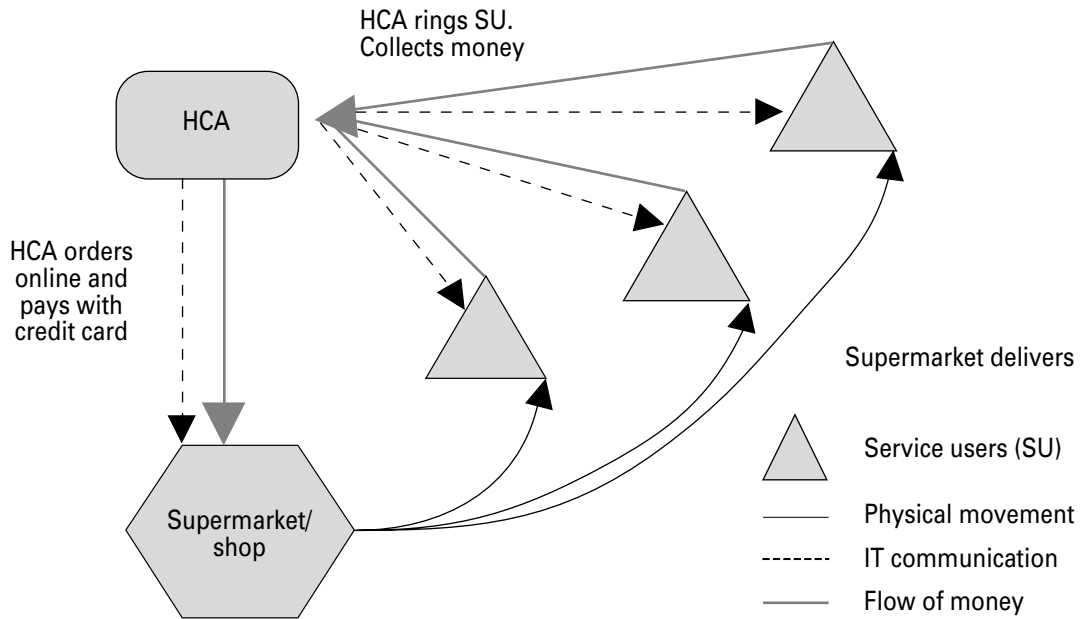
## **Council-run telephone ordering**

The trial of the telephone ordering service showed that home care service users can cope well with ordering on the phone, but the service is suitable only for the minority who have bank cards. The Dolphin Society was able to provide a credit card to test a shopping service based on the use of the telephone from the home care office.

The project worker telephoned service users at home to request their shopping list. Orders were then sent online to the supermarket and payment was made using the Dolphin Society’s credit card. The supermarkets delivered the goods. A home care assistant collected payment from the service users a few days later, and the project worker checked and banked it. The Dolphin Society paid the delivery charges. The model is shown in Figure 5.

Four women living alone plus a married couple took part in this trial. They all used the existing home care shopping service and their ages ranged from 74 to 92. In the trial, a choice between two supermarkets was offered. The trial lasted six weeks and involved 22 transactions. Background data are presented in the Appendix (Table A6 and Figure A4).

**Figure 5 Council-run telephone ordering – key processes and relationships**



**Timing and cost of service**

The average overall time per shop for this trial, including collection of the money, was 58 minutes (compared to 60 minutes for the current system). Of this, ordering accounted for 28 minutes and collection of individual payments took about 17 minutes per service user. Both the total time and the ordering time per shop decreased as the trial proceeded, and were still showing signs of decreasing at week six (see the Appendix, Table A6 and Figure A4). A conservative estimate of these values at a steady state would, therefore, be 50 minutes’ total time and 20 minutes’ ordering time.

The staffing costs of this model would be greatly reduced if payment for groceries were collected at the same time as payment of home care charges. The current cost of collecting home care charges is approximately £1.38 per service user per week. It follows that a telephone ordering system that used a single credit card for online payment and reclaimed the money by invoicing would be approximately 30 per cent cheaper than the current system (see Table 8).

**Customer satisfaction**

Questionnaires were completed face to face with the project worker. The participants said that, overall, they liked the trial about the same as the home care assistant service. The married couple continued to order on the phone, using supermarket T2’s service, after the trial had finished. Another person said she definitely would not order by phone in future ‘because I like to see my home care assistant’.

**Table 8 Cost of council-run telephone ordering service (£ per shop)**

	Telephone order		
	HCA collects money	Invoice sent to SU	Current system
Staffing <sup>a</sup>	16.67	6.67	20.00
Delivery <sup>b</sup>	5.00	5.00	
Phone <sup>c</sup>	0.14	0.14	
Invoicing		1.38	
<i>Total</i>	21.81	13.19	20.00

*a Home care assistant rate of £20 per hour.*

*b Supermarket T1 delivery charge is £3.99–5.99, supermarket T2 delivery charge is £5.*

*c Bristol City Council daytime rate 2.4p per minute.*

Typical comments were:

Ordering over the phone didn't worry me at all.

I liked being able to choose between two supermarkets.

It was easier giving the list on the phone – I didn't have to be up and dressed so early.

I liked being able to pay with a cheque, because it meant I didn't have to keep so much money in the house.

I prefer the old way of shopping because you get more personal contact.

### ***Delivery***

Both supermarkets' delivery services showed the same strengths and weaknesses as outlined in the other trials, i.e. the drivers were helpful but deliveries were occasionally very late.

### ***Payment and financial security***

The use of the Dolphin Society credit card enabled service users without bank cards to take part in the trial, but all the participants chose to pay by cheque. Modifications to the invoicing system would be needed if this system were used on a larger scale. As discussed in the 'Virtual shop' section above, there is currently no procedure to relate values appearing on a credit card statement with individual transactions. The cost of an order appears only on the receipt that is delivered with the shopping.

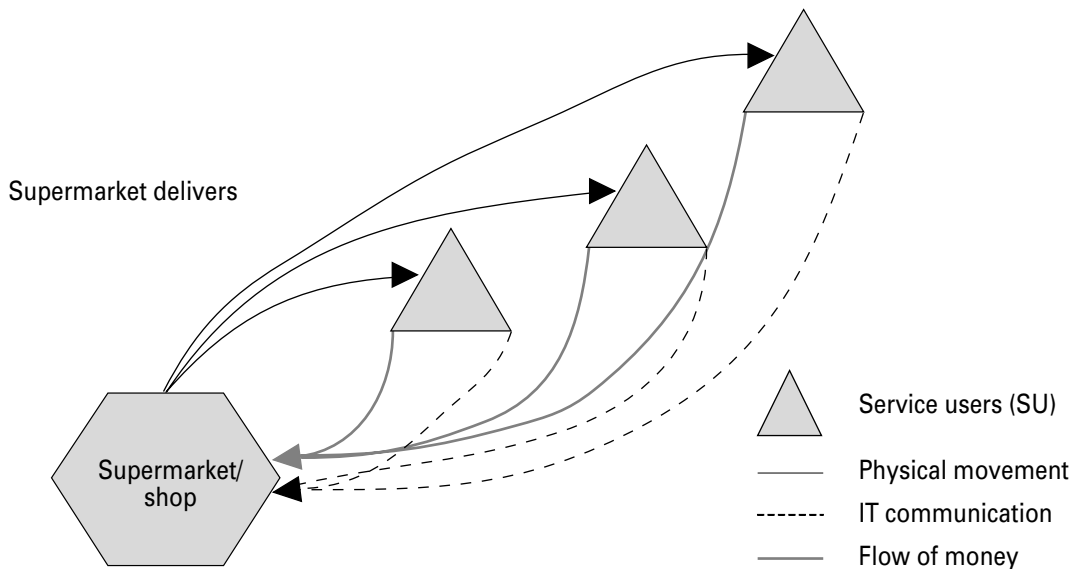
## Ordering using digital interactive TV

In addition to the online and telephone trials, a major supermarket's digital interactive TV shopping service was used by the researchers on three occasions, with a 'standardised' shopping list. This comprised 20 typical items regularly purchased by the sample of service users. The model is shown in Figure 6.

Excluding the time required to initially register for the service, the total transaction time averaged 32 minutes. Delivery of the goods followed the supermarket's standard model and charges.

The researchers found that, although the interface with the user was relatively simple, involving a simple scrolling system, it was hard to manipulate the TV remote control. Dedicated cordless keyboards for use with digital interactive TV are available and would have simplified the process. However, researchers in the IT2Eat project report that many older people have difficulty reading the text on DiTV sites. The lower number of pixels and colours on a TV screen lead to inferior resolution and contrast, compared to a computer monitor<sup>3</sup> (cf. Rice, 2003). The Royal National Institute for the Blind (RNIB) is currently researching visually impaired users' needs in terms of functions, the design of information, and how they understand and navigate an interactive digital television system (Gill and Perera, 2003).

**Figure 6 Ordering using digital TV – key processes and relationships**



### Summary

- *Assisted online shopping* gives service users more choice and personal influence, and 88 per cent were happy to use this method. This is an expensive system, compared to the current home care service, but improved social contact is achieved because of the time the operator spends with the service user. The opportunity for wider social interaction could be further improved by using a computer in a communal setting in sheltered accommodation.
- The use of a '*virtual shop*' would be considerably faster per transaction than the current approach, at around 30 minutes compared to 60 minutes. However, this would be negated once the time taken to transport service users to the day care centre, or other location for the virtual shop, was included.
- *Standard supermarket telephone ordering* can give service users a large degree of independence with their shopping. However, only one major national supermarket chain offers a telephone ordering service and it is not generally publicised (two of this chain's local store managers who were contacted did not know about it). The charge is the same as for online ordering, although the cost to the supermarket is higher. This casts doubt on whether the service will be maintained in the long term.
- One supermarket chain produces an illustrated catalogue, providing an opportunity to browse goods as in the shop or on the internet. The telephone ordering service is useful for those who can devise their own shopping list, have bank cards, which they are able to use on the phone, are sufficiently organised to store their customer details safely and can cope with some variation in delivery time.
- Telephone ordering reduces social contact, compared with the current home care service. Some people, for example the visually impaired, may need assistance with registering and placing initial orders.
- A shopping service based on *council-run telephone ordering* would be cheaper to run than the current service. Service users could be given a choice of supermarkets, but would lose social contact with a home care assistant. It would be suitable for those who are capable of giving their order over the phone and can cope with some variation in delivery time. The issue of payment needs to be resolved.

## 6 Towards a new home shopping service

Consumer ICT has long been characterised by increasing value for money, with a rapid and significant increase in functionality and performance, at ever lower prices. This applies equally to TV, personal computing and telephone equipment. In time, ownership of the basic equipment required for teleshopping is therefore likely to widen. Moreover, confidence in using the internet will rise and the difficulties caused by low use of bank cards among disadvantaged groups will cease to be the problems they are today. Overcoming the barriers posed for older users or people with certain disabilities by the design of equipment and web interfaces will certainly require considerable effort. However, internet access through multiple platforms will grow and digital interactive TV, in particular, has potential to deliver near universal internet access via a familiar and trusted medium.

Our survey showed that 16 per cent of home care service users expressed interest in learning how to use a computer and arrangements were made for three of these people to attend eight classes run by a local UK Online Centre, with transport funded by the Dolphin Society. Each reported that they enjoyed using the internet and were keen to progress to other classes. However, it is probably impractical to offer dedicated internet training to the majority of current or potential home care service users in order to help them to shop online. Ownership of computers is very low among the majority of home care service users and mobility is generally poor. Transport to an Online Centre would be needed and it would be more popular to provide transport to a shop.

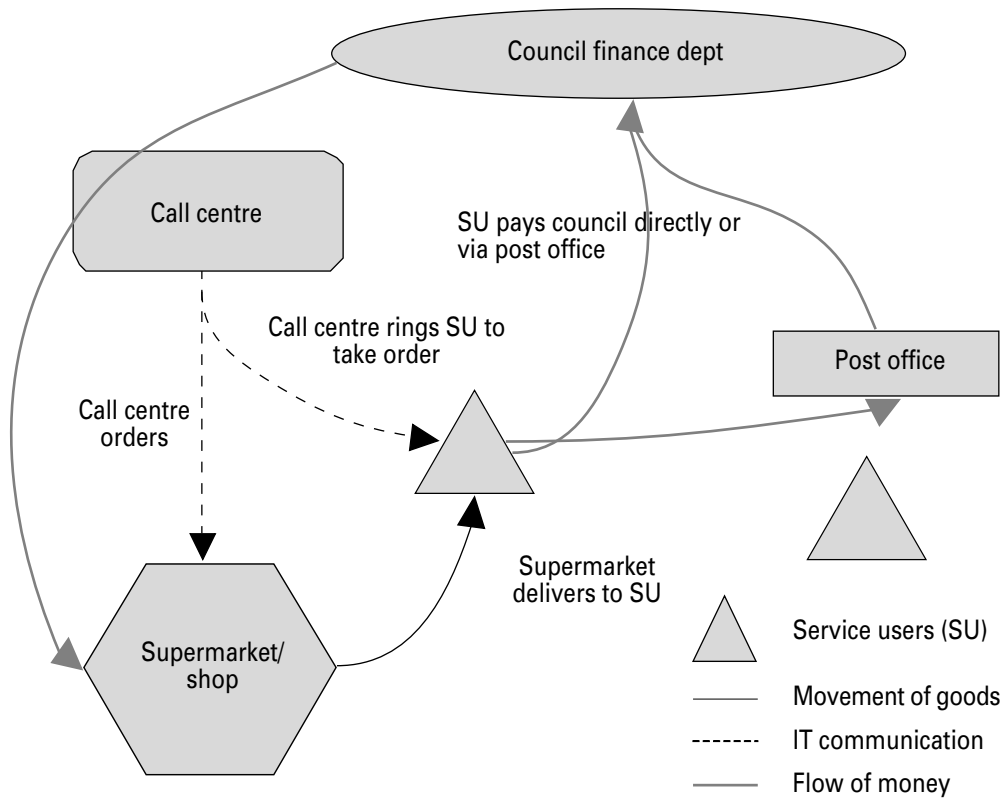
The findings in this report suggest there is a need to develop intermediate teleshopping models, to cover the period before there is widespread computer access and experience, and widespread digital interactive TV ownership. One model involves the use of available ICT to allow service users to scan bar codes from a list of goods and send a shopping list directly to their chosen supermarket. This is described below. The other intermediate model comprises a simplified ICT-supported system based on intermediaries who handle the transaction, but without the need for individual service users to have access to the internet or use a bank card.

### **Council-run telephone ordering**

Figure 7 illustrates the principal relationships in this intermediate model, which would involve the following steps.

- The service user is telephoned by the intermediary to ask for their shopping list and to check their welfare.

Figure 7 Intermediate model for home shopping



- Their order is placed online with a supermarket by the intermediary and payment is made by a centrally held credit card or account.
- The supermarket selects and delivers the groceries.
- Service users are invoiced monthly for their goods and can pay in the same way as they do for home care charges.

This model could be provided through the existing home care team or a supermarket’s current online service. Alternatively, it could make use of an intermediary, such as the existing community alarm service call centres.

The technical requirements for this model involve the development of appropriate software to relate the cost of a service user’s transaction to the entry on their invoice. Other than this, the service would require no new investment in ICT if provided by the community alarm service. If provided by the existing home care service, the only requirement is access to the internet and a telephone line.

We believe that supermarkets would be reluctant to act as the intermediary for two reasons. First, it is certain that they would be unwilling to take on board the risks associated with contacting vulnerable individuals for whom the phone call represented an important aspect of their welfare. Second, at present, only two supermarkets offer a telephone-based shopping service. It is unclear whether such a service is commercially viable, given the growth of e-commerce and outsourcing of call centre activities to cheaper countries.

The UK has a well-developed infrastructure of community alarm services provided by local housing authorities, social services and the voluntary and private sectors. These serve around 1.6 million people. Some of these are now beginning to develop new remote home care services or 'telecare' (Brownsell *et al.*, 2003). However, the extent to which community alarm providers would be willing to take on this additional role is untested. While some have displayed a relatively entrepreneurial approach to the development of new business activities (such as CCTV monitoring in town centres), others have been hindered by local authority interpretations of the financial regulations governing commercial trading by public bodies.

The economics of community alarm led teleshopping also needs to be explored. In particular, if an incoming emergency alarm caused staff in the call centre to break a call to a service user while taking their weekly shopping list, costs per shopping transaction would inevitably increase.

## **The economics of alternative shopping service models**

The various home shopping models discussed in this report have different cost implications for social services. The cheapest option would be to recommend standard supermarket telephone ordering, since the service user is responsible for all aspects of the transaction (ordering and payment). This is suitable for people who are able to use a bank card on the phone, but the choice of supermarket is limited. The intermediate model, a telephone-based online ordering service, would be cheaper to run than the current system, could offer a choice of any supermarket running an online service and could be open to anyone who was able to give their order over the phone. Table 9 provides a qualitative comparison between the different types of teleshopping service, based on the findings from the trials.

The cost of providing the different types of shopping service is illustrated in Table 10. These cost models apply to an urban area. Some costs will be greater in rural areas, where journey times are longer. Furthermore, supermarket deliveries to rural areas may be restricted.

**Table 9 Qualitative comparison between teleshopping options**

	Choice of supermarkets in Bristol	Opportunity to browse	Social contact	Customer satisfaction	Adherence to delivery times	Bank card needed
Supermarket telephone ordering	2	No	Telephone operator, delivery driver	Good	Variable	Yes <sup>a</sup>
Council-run telephone ordering	4 (1 does not deliver to all areas)	No	Telephone operator, delivery driver	Good	Variable	No
Online ordering	4 (1 does not deliver to all areas)	Yes	Computer operator, delivery driver	Good	Variable	Yes
Home care service	Supermarket chosen by home care team leader	No	1 or 2 home care assistants	Excellent	Good	No

*a One supermarket will accept payment by cheque to the delivery driver.*

We estimate that, assuming 1,500 users, the current home shopping service models cost between £1.18 million and £1.66 million per annum. The actual total cost to Bristol City Council is dependent on the balance between the three systems currently in use (in-house group shopping, in-house individual shopping and subsidised agency shopping), the proportion receiving the service free and the proportion paying a contribution towards the costs. Data are not readily available on the proportion of service users receiving their weekly shopping through each of the three models.

The teleshopping service models range from £1.03–2.23 million per annum (or nil in the case of standard, unsubsidised supermarket telephone ordering). The proposed intermediate model might therefore save Bristol City Council around £300,000–500,000 a year and so provide a more cost-effective shopping service. However, this is to take a very narrow perspective on the economics of home shopping. As we have seen, visits by home care assistants represent a significant opportunity for social contact for older and disabled people. This can have major benefits with resource implications for other parts of the care system. For example, early indication of changes to a service user’s condition, perhaps the exacerbation of an existing chronic condition or general worsening of mental or physical frailty, could result in savings for primary or secondary care. Such savings cannot, however, be captured under existing financial planning and expenditure models.

**Table 10 Cost to Bristol City Council of home shopping service models**

	Measured time per transaction (mins) <sup>a</sup>	Est. minimum time per transaction (mins) <sup>a,b</sup>	Est. minimum cost per transaction (£) <sup>c</sup>	Total annual cost (£m) <sup>d</sup>	No. of observations
<i>Current system</i>					
In-house (group)	59	59	19.67	1.53	142
In-house (individual)	64	64	21.33	1.66	94
Agency <sup>e</sup>	59	59	15.09	1.18	99
<i>Tele-shopping</i>					
Assisted online shopping (HCA visits with computer) <sup>f,g,h,i</sup>	69	66	28.60	2.23	36
Virtual shop (SU visits centre) <sup>g,h</sup>	32	42	19.00	1.48	14
Standard supermarket telephone ordering (SU phones supermarket call centre) <sup>g</sup>	0	0	0.00	0.00	15
Council-run telephone ordering (HCA phones SU then orders online) <sup>h,j</sup>	41	20	13.19	1.03	22

*a Transaction = involvement by carer.*

*b For service users with no bank card.*

*c Assumes cost of home care is £20 per hour.*

*d Assumes 1,500 users over 52 weeks.*

*e Includes estimated cost of managing contract (£5.83).*

*f Time includes estimated travelling time (11 minutes).*

*g Time measured when SU paid with own card.*

*h Cost includes delivery charge (£5).*

*i Cost includes internet connection (£1.60).*

*j Cost includes phone call (£0.14) and four-weekly invoice (£1.38). It has not been possible to estimate the costs if a community alarm centre was used rather than the existing home care service.*

## Bar code scanning by individual service users

Another intermediate approach using a simplified ICT-supported service could be developed to allow people to order groceries directly from the supermarket, without the need for an intermediary. This would involve the use of a bar code reader – cheap, readily available equipment, which is simple to use and can identify items very precisely. Its use by customers in some supermarkets indicates that it could form part of a system of home ordering, provided information could be transmitted from the bar code reader to a retailer. Discussions<sup>1</sup> have indicated that this could be

done very cheaply using available telephones with enhanced capabilities, allowing the information in the bar codes to be sent anywhere by email or fax. This would enable the service user to scan bar codes and send a shopping list to their chosen supermarket. A catalogue would be provided and a printer could be added into the system to produce a hard copy of the list. Payment could also be sent via such phones, which have a smartcard slot allowing the new 'chip and pin' bank cards to be read. These will be introduced to the UK in 2005. Work with the supermarkets will be needed to manage payment for those who do not have bank cards, but direct invoicing would be one option.

The use of bar code readers for home shopping would be cheaper than the current home shopping model. Our preliminary estimates suggest that, for Bristol, the total annual operating cost would be some £600,000 lower than at present (Table 11). This excludes the cost of the equipment, which needs to be at a level that could be funded by a charity, purchased by the individual, or rented from the council (as with community alarm equipment).

### Addressing the particular needs of older people

Whatever teleshopping model is adopted as an intermediate solution, whether internet or telephone based, the particular needs of older people will have to be carefully addressed. It will be important to provide assistance that maximises independence while allowing for physical and mental capabilities. Individual choice is also important. An ideal shopping service would allow users to make a choice of supermarkets and to be supplied with sufficient information to make a reasoned choice of purchases. Some of the challenges will need to be addressed as a matter of social care policy and others through negotiation with supermarkets.

**Table 11 Intermediate model using bar code scanners – cost to Bristol City Council**

	Cost per shop (£)		Cost per annum (£)*
	Itemised	Total	
<i>Current system</i>		20	1,500,000
Bar code reader			
Delivery	5		
Maintenance	2		
Invoicing	1	8	900,000

\* Excluding equipment costs. Assumes 1,500 service users, of whom 1,000 would be able to use scanners.

### ***Social exclusion***

Social exclusion is a major problem for older people in the UK today. Families disperse; mobility decreases and with it the opportunity to meet people outside the home; women, who traditionally provide casual care, are in paid employment and have less time to 'pop in for a cuppa'. The home care assistant's visit is highly valued, even though it may be brief. As one service user put it:

My relationship with my home care assistant is very important to me. I can't emphasise this enough.

However, the use of paid carers to provide social contact is expensive and, at a time when the cost of social care is rising, it may be necessary to separate necessities, such as the ability to obtain food, from other activities, which, although they improve the quality of life, are not vital for its maintenance.

### ***Low incomes***

Low income is an issue for many home care service users. A large minority (42 per cent) of those in the survey received income-related benefits. The charge for home care is means tested and those on the lowest income receive the service free. The fixed charge of about £5 for supermarket deliveries is a large proportion of a weekly shop, which for most people costs less than £25. Policy decisions over subsidies to reduce delivery costs will be needed.

### ***Physical and mental impairment***

Physical impairment is almost universal among those who are unable to shop for themselves and visual and hearing impairments are common in the older age group. A significant minority of home care service users are mentally impaired to the extent that they are unable to produce their own shopping list or manage their own money. Together, these issues have a major impact on teleshopping through their effects on delivery requirements, the production of a list, and the ability to understand written and spoken language. Some people in the survey (6 per cent) were unable to write a list because of problems with their hands and had no family or friends to assist them.

The delivery person needs to bring the groceries into the house and sometimes put them away. Home care assistants routinely do this but supermarkets instruct their drivers not to enter the house for their own security. Nevertheless, participants in the trials reported that supermarket drivers always brought the shopping into the house and left it in a convenient place. Some opened bottles on request, although none was asked to put things away.

For the significant minority of home care service users who are mentally impaired, home care assistants will check cupboards, write lists, deal with money and pack goods away. It is likely that people who need this type of help will always require a personal shopping service.

### ***Physical security***

Physical security of frail and vulnerable people is an important consideration when it is necessary for carers or others to enter the house. Home care assistants are required to disclose any criminal convictions and must undergo a check by the Criminal Records Bureau before employment to minimise risk to service users. This does not appear to be a requirement for supermarket delivery drivers.

### ***One-person households***

About 50 per cent of people over 75 in Britain – and 94 per cent of those in our home care survey – live in one-person households.<sup>2</sup> This affects their shopping needs. One of the main complaints made during the trials was that some supermarkets do not supply small quantities of fresh goods through their online ordering services. This was felt to be a particular issue because participants were aware that goods could be purchased in small quantities from the delicatessen, meat and fish counters in the shop.

A shopping service for older people that did not include the facility to purchase small amounts would result either in wastage or in food being consumed past its best, with possible consequences of food poisoning.

## **Payment systems**

A major issue during the trials was the fact that online or standard telephone ordering requires the customer to use a credit or debit card for payment, but only a third of home care service users possess such a card. This was resolved in one trial by using a credit card belonging to the Dolphin Society. On a larger scale, the shopping scheme in Epsom, Surrey operates using a credit card provided by the local council (see case study 2) and that in Stockport uses an Age Concern credit card. However, as discussed in Chapter 5, the subsequent collection of payment from service users poses problems because, using standard systems, it is not possible to track individual payments when a single credit card is used for multiple orders. An alternative solution would be for either service users or the local authority to hold an account with a particular supermarket, so that, in effect, the supermarket was giving credit for the goods.

Whichever initial method of payment is used, the cost of the goods must be recouped from the service user. At present, all home care service users in Bristol pay cash for their groceries, giving the money directly to their home care assistant. They pay for their home care service through a monthly invoice, which can be settled by:

- direct debit
- cheque
- online with a credit or debit card
- cash at the post office.

The cost of issuing a four-weekly home care invoice and processing the payment is approximately £5.50 in Bristol. All the local authority led schemes we have studied allow service users to pay cash to the person who delivers their shopping. As we have discussed in Chapter 5, this is time-consuming. Furthermore, carrying large amounts of cash puts the driver at risk of attack and supermarkets do not permit this. It would be preferable to invoice service users for their goods and allow the invoices to be settled in the same way as those for home care charges. Under the present system, service users are able to make payments to their account at any time, so, if it were expanded to include the price of shopping, they would still have the option of paying weekly for their groceries.

Many of the issues discussed above can be resolved only if supermarkets make changes to meet the needs of older people. As we have discussed in Chapter 2, there are a few examples of local arrangements between supermarkets and local authorities. For example, in Epsom, the supermarket issues two receipts for each transaction – one for the service user and the other for the local authority. This solves the problem of determining the cost of each service user's shopping when a council credit card is used. The managers of twelve Bristol supermarkets were contacted but none was able to offer suitable assistance. Attempts were also made to contact senior managers at the headquarters of all the major English supermarkets, but only one replied. A similar low level of interest from national supermarkets was noted by the IT2Eat project.

### Summary

In the longer term, internet ordering could form a suitable method of home shopping for many people, but for the current generation an interim solution is needed. This could involve the use of intermediaries, such as the existing home care team or the

community alarm service, contacting service users for their shopping requirements and ordering online on their behalf. Supermarkets would be reluctant to act as the intermediary because they would be unwilling to take on the risks and it is unclear whether a telephone service is commercially viable.

Another option would be to develop a simplified system of home-based ordering, such as bar code readers, which would not involve the expense of an intermediary.

Both these models would be cheaper to run than the current system, could offer a choice of any supermarket running a delivery service and could be open to anyone who was able to give their order over the phone or to use a bar code reader.

Whichever model is adopted, it would need to take into account the specific requirements of older people and alternative payment methods. This would need co-operation from supermarkets, as well as social care policy decisions about subsidy and access.

# 7 Conclusions

Home shopping schemes for groceries are an established part of social care, but increasing numbers of older people are living independently and financial pressures on local authorities mean that such schemes are becoming difficult to sustain. At present, most local authority shopping services involve home care assistants visiting individual service users, travelling to the shops and returning with the groceries. This places service users in a position of dependence and is expensive to run. The project aimed to improve the quality of the shopping service available, and to develop a more efficient and cost-effective service.

Research on the needs of home care service users and trials of five different teleshopping methods – including taking a laptop computer to individuals' houses and assisting them to order online; and arranging transport to a UK Online Centre so service users could use the internet independently – lead to the conclusion that an internet-based ordering system does have potential to deliver an efficient shopping service.

Modifications are, however, needed because many members of the user group do not possess the accepted characteristics of a typical online shopper and there is generally low access to the necessary ICT infrastructure among the target group. In the longer term, problems relating to internet access and computer literacy will be eroded. There are several government strategies for reducing the 'digital divide', including initiatives to develop public internet access points and projects to 'wire up' disadvantaged communities. Other platforms, notably digital interactive TV, may overtake the personal computer as the principal means of accessing the internet from home in the next few years.

Developments in database and interface technologies have great potential to radically change the home shopping experience for older and disabled people. The complexity of website use and navigation, and the difficulty of electronically delivering a personalised service may be overcome through the development of the 'electronic personal sales assistant' ('ePSA') as an anthropomorphic interface between customers and retailers (Arafa and Mamdani, 2003). This acts as a personal sales assistant to connect with search engines to find the right product for each customer, answer questions at any point in a transaction and provide advice and recommendations. In time, ePSAs may take the form of lifelike animated characters, able to communicate through written dialogue, spoken language, and facial and body gestures and expressions. Linked to powerful database management systems, the ePSA could maintain a customer profile by monitoring their shopping preferences, patterns and habits, and recommending alternative products.

In the short term, though, replicating the existing home shopping service using ICT is entirely possible. There is a spectrum of possible ICT-enabled variants on the current model. All have problems and are not necessarily cheaper to run than the current service, especially if the wider benefits to the care system of personal visits by home care assistants are considered. Moreover, current supermarket home delivery services can be problematic for older people for a variety of reasons, although these problems could be addressed with co-operation with the supermarket chains.

We have also proposed an intermediate service, for use before internet use is common among all social and age groups. This relies on home care assistants – or possibly the community alarm service – acting as an intermediary between the supermarket and the service user. This would provide a more cost-effective shopping service to local authorities, while retaining some of the benefits of the current model, because there would still be direct contact with the service user, albeit by telephone rather than face to face. Other intermediate models can also be envisaged, allowing people to order groceries directly from the supermarket, without the need for an intermediary, using simple bar code and telephone/email systems that are currently available. Both models will nevertheless require co-operation from supermarkets to overcome barriers posed by current delivery and payment practices.

The findings of the research suggest that, whatever approach is adopted, the major supermarkets will need to be more closely involved in home shopping services for housebound people. As their corporate social responsibility statements show, the supermarkets seek to cater for a wide range of customers:

Everything we do is customer focused. We are an inclusive business, catering for all tastes and all customers' needs.<sup>1</sup>

Our aim is to meet the food and food-related needs of a wide range of UK consumers; for example, young and elderly, families and singles; ... but always with the best quality and choice of products in mind.<sup>2</sup>

... we're passionate about dealing with our business one customer at a time and that means looking after the individual needs of all our shoppers, whether they're disabled or able-bodied.<sup>3</sup>

Given their position in grocery retailing in the UK, the major supermarkets have the power to help respond to the needs of housebound people and improve their quality of life. However, at a national level, this sector of society is largely ignored. The development of appropriate models for home shopping, in conjunction with statutory or voluntary bodies assisting older people, could indeed earn the 'lifetime loyalty'<sup>4</sup> of consumers.

# Notes

## Chapter 1

- 1 Based on the proportion receiving such assistance in Bristol.
- 2 The Dolphin Society is a charity, established in 1749, which aims to help older and disabled people in Bristol to remain in their own homes and maintain their independence for as long as possible.

## Chapter 2

- 1 'Use and potential use of the internet for grocery shopping', *IGD News*, 28 November 2003, [http://www.igd.com/analysis/index.htm?news\\_analysis/viewArticle\\_fs.asp?id=1085](http://www.igd.com/analysis/index.htm?news_analysis/viewArticle_fs.asp?id=1085).
- 2 [http://www.igd.com/analysis/index.htm?sitemap\\_fs.asp](http://www.igd.com/analysis/index.htm?sitemap_fs.asp) (28 March 2003).
- 3 Follow-up telephone interviews were carried out to obtain up-to-date information on the PJs Dial & Buy/Croydon, Tesco/Ealing and Mother Hubbard's/Chiswick schemes. No information could be found on the other schemes, apart from GSS.
- 4 Interviews with those responsible for developing/operating these schemes were carried out during 2003.

## Chapter 3

- 1 See the Disability Rights Commission's inaccessible website demonstration online at [www.drc-gb.org/open4all/newsroom/website1.asp](http://www.drc-gb.org/open4all/newsroom/website1.asp).

## Chapter 4

- 1 Census 2001, [www.statistics.gov.uk/census2001/profiles/00hb.asp](http://www.statistics.gov.uk/census2001/profiles/00hb.asp).
- 2 Department of Health (DoH) Community Care Statistics 2002, [www.doh.gov.uk/public/hh2002.htm](http://www.doh.gov.uk/public/hh2002.htm).
- 3 In November 2002, there were 51 service users in the selected district who received a shopping service via the group shopping scheme. Ten of these were identified by the home care team leader as being unsuitable for questioning because of either confusion or communication difficulties. Three had already participated in a mini-trial of internet shopping and were therefore not suitable for further questioning. Of the remaining 38 service users, 35 could be contacted to ask for their co-operation in the survey. Two refused on their own behalf and the

relatives of two others said that questioning might distress them. Eventually, 31 people were interviewed.

### Chapter 5

- 1 Travelling time varies considerably depending on the type of housing and geography of the district. Research into the current shopping system suggests that an average travelling time of 11 minutes is realistic in Bristol.
- 2 Continuous internet connection via a mobile phone, charged by amount of data sent or received.
- 3 [www.it2eat.org.uk/sbp/website.html](http://www.it2eat.org.uk/sbp/website.html).

### Chapter 6

- 1 We are grateful for the assistance of Professor Heinz Wolff, Brunel University, in the development of this model.
- 2 Office of National Statistics General household Survey 2001, [www.statistics.gov.uk/lib2001/viewerChart4712.html](http://www.statistics.gov.uk/lib2001/viewerChart4712.html)

### Chapter 7

- 1 Tesco Annual Review 2003, [http://81.201.142.254/presentResults/results2002\\_03/Prelims/Report/site/index.htm](http://81.201.142.254/presentResults/results2002_03/Prelims/Report/site/index.htm).
- 2 Sainsbury's CSR statement, February 2004, <http://www.j-sainsbury.co.uk/csr/consumers.htm>.
- 3 Asda website, 'All about Asda', February 2004, [http://www.asda.co.uk/asda\\_corp/scriptshomePage.jsp?BV\\_SessionID=@@@@1009238254.1077624389@@@&BV\\_EngineID=ccceadckimhklhlcfkfcjkjgoodgig.0&intCatOID=8943&bodyNavPath=/scripts/allaboutasda/aaMainPage.jsp&imgName=http://graphics.asda.com/ASDA\\_Corp/topNavImages/but004\\_off.gif&imgWelcome=http://graphics.asda.com/ASDA\\_Corp/topNavImages/welcome005.gif&NotToCache=0](http://www.asda.co.uk/asda_corp/scriptshomePage.jsp?BV_SessionID=@@@@1009238254.1077624389@@@&BV_EngineID=ccceadckimhklhlcfkfcjkjgoodgig.0&intCatOID=8943&bodyNavPath=/scripts/allaboutasda/aaMainPage.jsp&imgName=http://graphics.asda.com/ASDA_Corp/topNavImages/but004_off.gif&imgWelcome=http://graphics.asda.com/ASDA_Corp/topNavImages/welcome005.gif&NotToCache=0).
- 4 Tesco Annual Review 2003, [http://81.201.142.254/presentResults/results2002\\_03/Prelims/Report/site/index.htm](http://81.201.142.254/presentResults/results2002_03/Prelims/Report/site/index.htm).

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# Appendix: Data from teleshopping trials

Table A1 Key data from assisted online shopping T1

Event no.	Service user	Mins before logging on	Time online (mins)	Admin. time (mins)	Duration of visit (mins)*	No. of different items purchased	Time online (mins per item)	Cost of internet connection (£)	Cost of order ex-delivery (£)
1	A	3	113	9	125	12	9.4	4.52	20.60
2	B	10	67	3	80	21	3.2	2.68	29.67
3	C	11	50	9	70	10	5.0	2.00	15.25
4	C	7	85	13	105	11	7.7	3.40	17.25
5	B	11	36	23	70	10	3.6	1.44	9.80
6	A	33	53	19	105	19	2.8	2.12	24.25
7	B	2	38	15	55	16	2.4	1.52	22.88
8	D	6	30	14	50	15	2.0	1.20	14.31
9	D	9	43	18	70	15	2.9	1.72	21.90
10	A	7	36	12	55	12	3.0	1.44	13.84
11	B	10	39	16	65	12	3.3	1.56	14.93
12	D	14	29	17	60	20	1.5	1.16	16.51
13	A	7	56	12	75	12	4.7	2.24	19.28
14	B	—	28	—	—	14	2.0	1.12	14.17
15	D	6	32	—	—	19	1.7	1.28	15.56
<i>Mean</i>		10	49	14	76	15	3.7	1.96	19.30

\* Excluding travelling time.

Figure A1 Timing of assisted online shopping T1

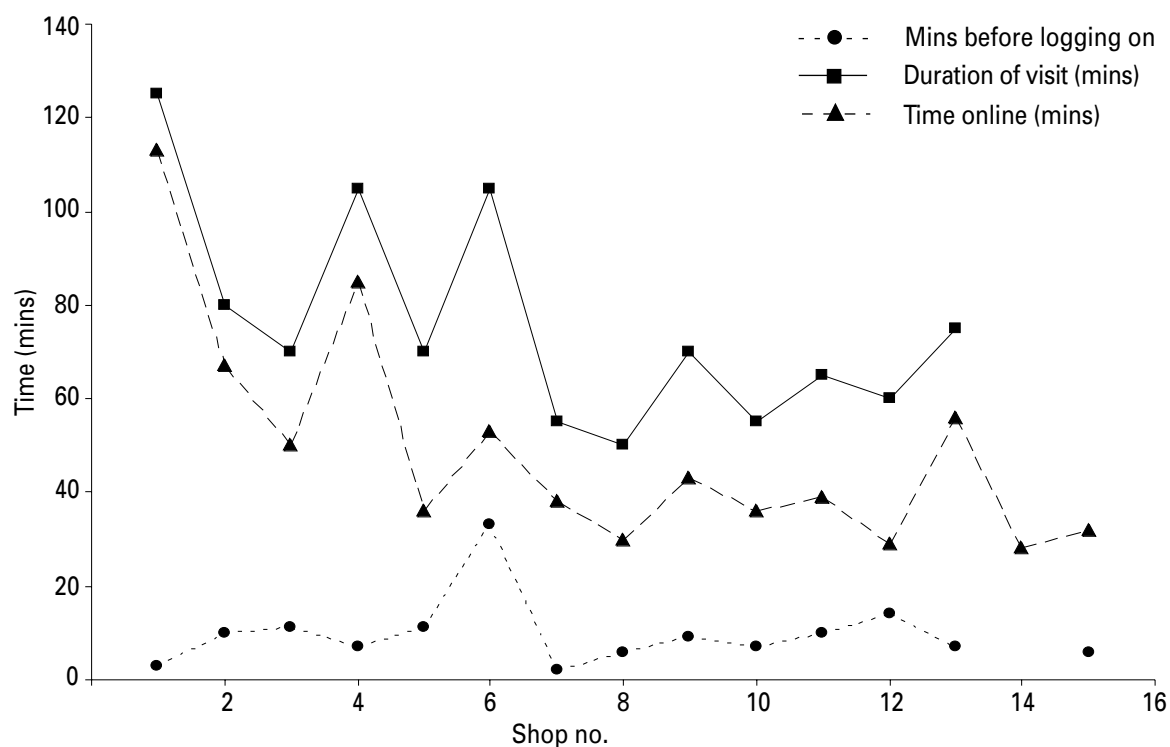


Table A2 Key data from assisted online shopping T2

Event no.	Service user	Mins before logging on	Time online (mins)	Admin. time (mins)	Duration of visit (mins)*	No. of different items purchased	Time online (mins per item)	Cost of internet connection (£)	Cost of order ex-delivery (£)
1	E	7	35	8	50	10	3.5	1.40	14.96
2	F	4	48	18	70	20	2.4	1.92	30.66
3	G	13	29	18	60	11	2.6	1.16	9.03
4	F	7	32	11	50	21	1.5	1.28	27.56
5	E	5	39	10	54	13	3.0	1.56	39.22
6	H	6	45	11	62	18	2.5	1.80	28.91
7	G	2	21	10	33	8	2.6	0.84	11.83
8	E	5	19	11	35	9	2.1	0.76	13.81
9	F	5	17	13	35	18	0.9	0.68	25.10
10	G	5	21	14	40	9	2.3	0.84	9.80
11	H	3	49	13	65	11	4.5	1.96	22.06
12	E	2	27	7	36	12	2.3	1.08	24.05
13	F	4	27	15	46	22	1.2	1.08	29.29
14	G	3	42	12	57	13	3.2	1.68	11.50
15	H	2	31	7	40	14	2.2	1.24	27.46
16	E	4	36	12	52	18	2.0	1.44	33.26
17	F	3	24	13	40	24	1.0	0.96	29.06
18	H	3	34	13	50	18	1.9	1.36	32.07
19	F	7	36	17	60	11	3.3	1.44	11.14
20	E	4	27	9	40	18	1.5	1.08	39.38
21	F	3	18	11	32	21	0.9	0.72	29.21
22	G	2	39	15	56	24	1.6	1.56	30.22
23	H	5	28	12	45	19	1.5	1.12	33.79
<i>Mean</i>		5	31	12	48	16	2.2	1.26	24.49

\* Excluding travelling time.

Figure A2 Timing of assisted online shopping T2

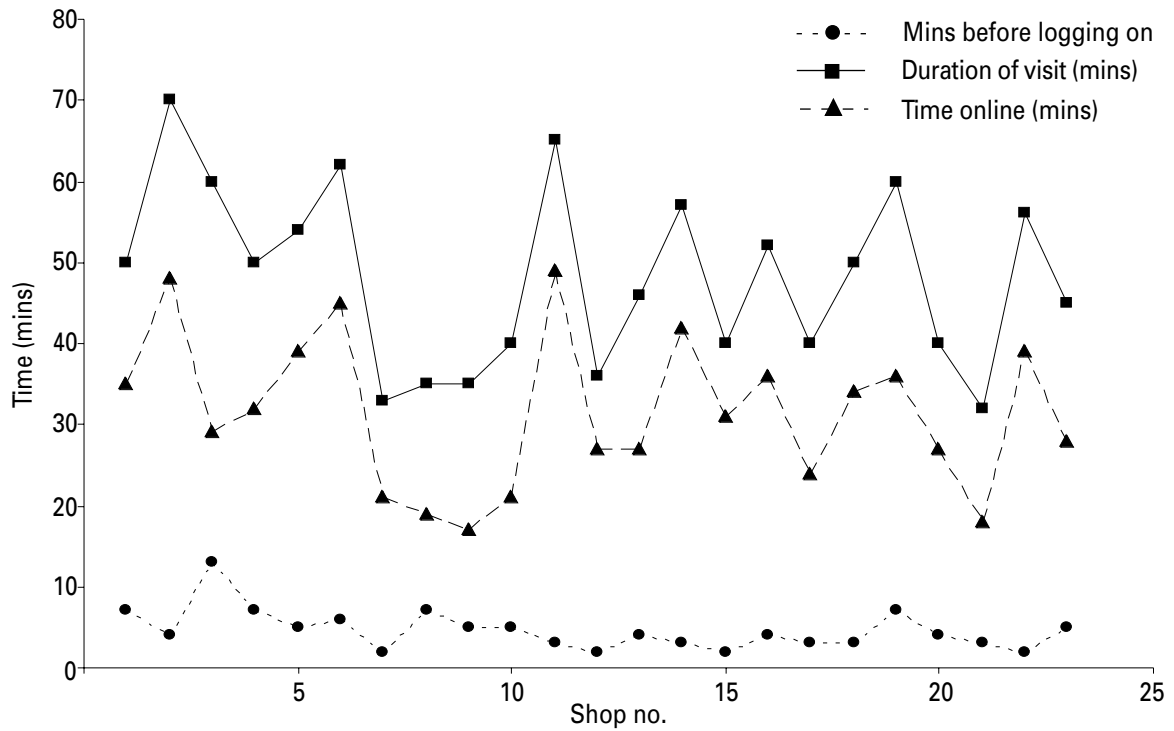
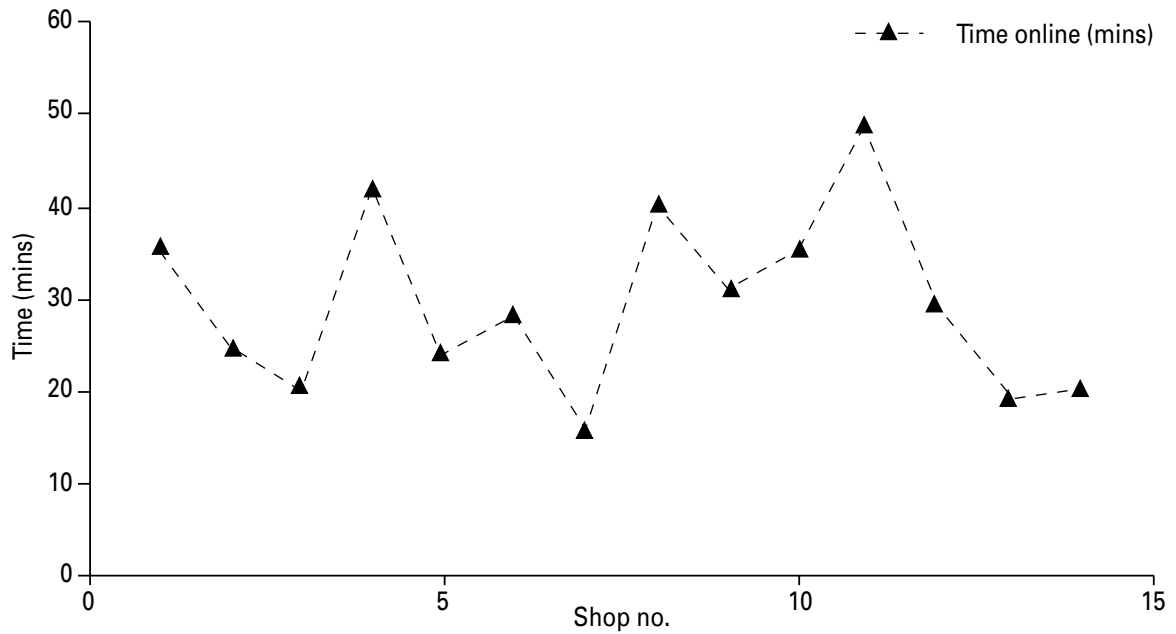


Figure A3 Timing of virtual shop trial



**Table A3 Key data from virtual shop trial**

Event no.	Service user	Super-market	Time online (mins)	No. of different items purchased	Time online (mins per item)	Est. cost of order ex-delivery (£)	Total time that session (mins)	Overall time per order (mins)
1	K	T1	35	32	1.09	33.46		
2	L	T2	25	11	2.27	16.55		
3	J	T1	20	19	1.05	37.24	92	30.7
4	L	T2	42	35	1.20	59.02		
5	K	T1	24	38	0.63	37.07		
6	M	T1	28	23	1.22	33.93		
7	J	T1	16	22	0.73	41.70	117	29.3
8	M	T1	40	36	1.11	40.09		
9	K	T1	31	33	0.94	65.95		
10	J	T1	35	19	1.84	54.27	114	38.0
11	J	T1	49	22	2.23	53.34		
12	M	T1	29	37	0.78	45.87		
13	L	T2	19	16	1.19	18.22	110	36.7
14	K	T1	20	32	0.63	51.51	27	27.0
<i>Mean</i>			30	27	1.21	42.02		32

**Table A4 Telephone trial – registration and first order**

Service user	Registration time (mins)	Ordering time (mins)	No. of different items purchased	Time on phone (mins per item)	Cost of order ex-delivery (£)
N	8	17	17	1.00	18.80
P	10	10	14	0.71	39.72
Q	10	19	23	0.83	34.59
<i>Mean</i>		9	15	0.85	31.04

**Table A5 Telephone trial – second and subsequent orders**

Event no.	Service user	Duration of call (mins)	No. of different items purchased	Time on phone (mins per item)	Cost of call (£)	Cost of order ex-delivery (£)
1	F	16	20	0.80	0.64	27.85
2	H	15	6	2.50	0.60	9.98
3	F	11	17	0.65	0.44	23.10
4	G	17	12	1.42	0.68	32.68
5	H	12	10	1.20	0.48	13.49
6	F	15	19	0.79	0.60	39.36
7	H	20	9	2.22	0.80	15.53
8	H	10	10	1.00	0.40	10.64
9	N	18	12	1.50	0.72	17.65
10	P	19	18	1.06	0.76	45.55
11	N	15	9	1.67	0.60	15.52
12	G	17	14	1.21	0.68	31.88
<i>Mean</i>		15	13	1.33	0.60	23.60

*Service user Q withdrew from this trial because her health improved and she was able to shop for herself.*

**Figure A4 Timing of council-run telephone trial**

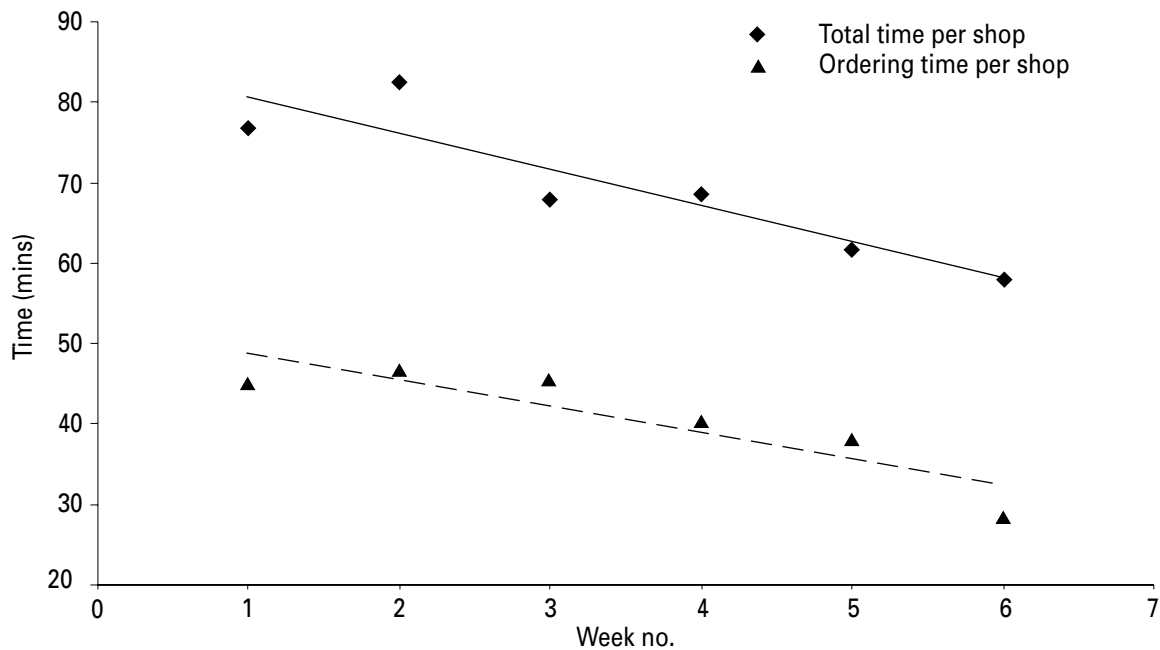


Table A6 Key data from council-run telephone trial

Week no.	Event no.	Service user	Phone call (mins)	Online (mins)	No. of items	Cost ex-delivery (£)	Total ordering time (mins)	Ordering time per service user (mins)	Collecting money (mins)	Check and pay in money (mins)	Total time (mins)	Total time per service users (mins)
	1	T	4	15	11	15.02						
	2	S	4	19	17	22.96						
	3	R	3	13	12	16.99						
	4	U	5	21	20	27.51						
	5	V	7	38	32	35.15						
1	<i>Weekly total</i>						225	45	100	60	385	77
	6	T	2	12	11	15.10						
	7	S	8	27	16	44.79						
	8	V	12	29	34	49.24						
2	<i>Weekly total</i>						140	47	60	48	248	83
	9	T	5	13	14	19.64						
	10	S	8	30	20	48.19						
	11	V	11	57	43	58.51						
	12	U	6	24	23	41.82						
3	<i>Weekly total</i>						182	46	60	30	272	68
	13	T	5	10	11	13.16						
	14	U	4	11	12	22.32						
	15	V	14	51	36	54.54						
4	<i>Weekly total</i>						120	40	45	40	205	68
	16	T	3	23	11	12.90						
	17	S	4	15	19	45.01						
	18	U	5	8	11	15.54						
	19	V	14	51	36	55.14						

*Continued overleaf*

Table A6 Key data from council-run telephone trial – continued

Week no.	Event no.	Service user	Phone call (mins)	Online (mins)	No. of items	Cost ex-delivery (£)	Total ordering time (mins)	Ordering time per service user (mins)	Collecting money (mins)	Check and pay in money (mins)	Total time (mins)	Total time per service users (mins)
5	<i>Weekly total</i>						152	38	55	41	248	62
	20	T	2	9	12	16.73						
	21	S	4	11	16	33.80						
	22	V	10	34	50	73.21						
6	<i>Weekly total</i>						85	28	45	45	175	58
	<i>Mean per SU</i>			6	24	21	33.51	17	12	70		

Notes:

- Total ordering time included phone call, online ordering and associated administration.
- Total time included ordering time, plus collection of payment from service users, reconciling and banking money.
- Service user R withdrew from the trial after receiving the first order because she wished to receive her shopping from supermarket T1, but was not able to purchase loose meat and fish online from that source.
- Two other service users switched from supermarket T1 to supermarket T2 during the trial because they were then able to purchase loose goods.