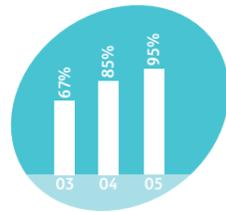# BT and digital inclusion

let's make a
better
world

BT and digital inclusion

UK Addressable Broadband Market –
the geographical reach of broadband

67%
85%
95%
03 04 05

Access to Information and Communications Technology (ICT) can improve people's lives, opening doors to education, jobs, entertainment and personal contacts. But many people - in developing and developed countries - have neither the opportunity nor the necessary skills to use the technology.

Progress is being made on closing the digital divide between the North and South - the World Bank says half the world's population now has access to a fixed-line telephone and 77 per cent to a mobile network. But there is still much to do to spread the benefits of computing and telecommunications.

In the UK, research shows that age and income are the most significant factors that determine who uses the Internet. People over 65 and those with a low income are most likely to ignore the Internet, according to a 2004 UK government report called Enabling a Digitally United Kingdom. A 2004 survey by the UK Office for National Statistics showed that while the majority of UK adults had used the Internet, 34 per cent had never done so.

We want everyone to participate in the digital revolution. Here we discuss how we promote digital inclusion, in three ways:
• Provide greater access to communications technology - **Connectivity**

• Encourage communication and its use for social and economic benefit - **Content**

• Help groups and individuals use technology - **Capability**.

We are members of the Alliance for Digital Inclusion (ADI), a collaboration between businesses and the charity Citizens Online. The Alliance works to promote the use of information and communication technologies (ICT) for social benefit. ADI's other members are: AOL UK, Cisco Systems UK, IBM UK, Intel UK, Microsoft UK and T-Mobile.

The launch of the ADI in October 2004 coincided with the release of a report by the UK Government's Digital Inclusion Panel. It identifies social groups most at risk of digital exclusion and the actions needed to encourage them to use ICT.

In 2004, BT commissioned the Future Foundation to conduct an independent study the potential future impacts of the digital divide in 2025.

See case studies for examples of our work to promote inclusion.

Connectivity
We provide a range of different connections, from home dial up lines to Internet kiosks and high-speed broadband. See BT Retail for our products and services.

Broadband provides a fast 'always-on' connection to the Internet via a conventional telephone line. It is the most significant technical advance for consumers and small businesses. Its availability promotes social inclusion.

Telephone exchanges have to be upgraded to provide broadband. Because of the cost, this is being done gradually in the UK, often working in partnership with government and regional development agencies.

We connected our five-millionth customer to broadband at the end of March 2005, meeting our target a

year early. We are on track to meet our target earlier and make broadband available to exchanges serving 99.6 per cent of UK homes and businesses by summer 2005.

By 2007, we expect:
• The UK economy could be boosted by up to £7.5 billion through productivity gains attributed to broadband, according to the Centre for Economic and Business Research

• Up to 16 billion fewer miles could be driven as broadband enables more people to work from home and shop on-line, according to the UK Department of Transport

• Every school child in Britain will be able to learn via broadband, according to the UK Department of Education and Skills

• Millions of hospital outpatient appointments will be booked over broadband, according to the UK National Health Service.

Broadband is a critical factor in the success of the UK economy, but its wider benefits are constrained by the rate at which people make use of the technology. One of the solutions is to work in partnership with others and to provide the on-line facilities that people need.

For example, BT's on-line payment system, called Click & Buy, enables Internet users with an account to pay for small transactions, such as a subscription page in a journal archive. On-line shoppers maintain their Click & Buy account by paying with a credit or debit card, direct debit or by adding Click & Buy transactions to their BT bill. This promotes on-line shopping by making it easier to pay for small transactions.

New approaches
We are developing new marketing approaches to ensure we spread the

benefits of broadband as widely as possible. This will help to bridge the digital divide.

By the end of 2004, BT was involved in 46 public/private partnerships across the UK to bring broadband to areas where exchanges had not been enabled. During the last year we developed further partnerships to help increase understanding of the potential benefits of ICT, and in many cases provide training and support for potential users.

In Cornwall, UK, a European Union funded partnership project, ACTNOW, offers subsidised packages to small businesses.

Over 1300 BT Payphones have been converted to Internet kiosks enabling web surfing, emailing, text messaging and telephone calls.

Our wireless networks in public places enable Internet access from portable computers. Our network of Openzone and partner access points - over 7800 - are available at airports, hotels, railway stations and fast-food outlets.

Driving demand
We use a range of market incentives to encourage the use of broadband. These range from rewards for those who introduce their friends, discount schemes and offering incentives for charities to become resellers via their websites. In the 2005 financial year, we further reduced - by around eight per cent - the wholesale price of broadband connections.

We hope that the purchasing power of the public sector will encourage greater uptake of broadband. We continue to support a Government initiative to provide broadband services to public service organisations, offering competitive prices.

PC Access
Over 99 per cent of people use a personal computer to access the Internet and there is a growing trend to use mobile phones too, according to the UK Office for National Statistics (October 2004).

In an effort to boost Internet use and spread the use of computer skills, the UK Government promotes a programme providing subsidised home computers. This is organised through employers. UK companies can save on their National Insurance payments and provide cheaper home computers for their staff (up to a 40 per cent saving).

BT, along with Intel and Microsoft, is a member of the Home Computing Initiative Alliance. Find more here.

There has been a strong demand from BT employees for subsidised home computers, with over 25,000 of our employees now taking advantage of BT's Home PC Scheme.

Community Connections
Since 2000, BT Community Connections has provided 3400 Internet-ready PCs to a diverse range of groups - from dance groups, hospices and homeless drop-in centres to sports groups. The scheme provides an NEC Internet-ready PC and Microsoft software package worth more than £1300 to voluntary and community organisations so they can provide Internet access to their local communities. An estimated 85,000 people have benefited directly and indirectly from the awards.

Education
Our well-established education team focuses on raising educational standards throughout the UK by improving opportunities for learning and development. Our objective is to work with professionals and

organisations in the education community on a shared vision of e-learning excellence.

BT offers free educational materials for schools and not-for-profit organisations (such as Trades Unions) as well as training products for companies.

By promoting speaking and listening skills, we aim to give young people in the UK the best possible start in life. Broadband has the potential to distribute high-quality curriculum materials to all pupils. BT's LearningStream 8 and LearningStream 34 services have been designed specifically for education. They can be used by schools, colleges and public learning centres to create on-line learning communities and share resources. They help build learning communities by linking schools, colleges, libraries, learning centres and Citizens Advice Bureaux.

We provide a subscription on-line learning resource that helps families access educational material linked to the school curriculum, to expand and develop their knowledge and key skills. It helps children revise for exams (SATs, GCSE/Scottish Higher and mocks), research core subjects and gain access to useful websites.

For more information, see BT Learning Centre and case study on grandparents and computers.

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Reports
Connected Community Organisations - Can They Help to Overcome the Digital Divide?, SustainIT, December 2003

'Broadband use by community organisations can help to overcome the digital divide, as well as breaking down social barriers and improving organisational effectiveness. It can also extend and deepen their links with external bodies - but only if the organisation already has a culture which recognises the importance of organisational networking.'

'Broadband has helped to overcome social barriers between users and had a very significant or significant impact on the community - although the forms this takes varies between organisations'

Sustainable Development in Broadband Britain, Forum for the Future, March 2004.
'Broadband internet access provides the opportunity to enhance and multiply social ties, though in some cases may also contribute to social isolation.

Fast, always on internet access makes a wide range of applications more user-friendly and more likely to be successfully employed. Reports list areas from education and health to democratic participation and agriculture as areas that are likely to benefit.'

Content
The amount of information available on the Internet is vast, but there is still a great need for content that brings benefits to communities, small businesses and individuals. This is why we work with others to promote new content (see examples in case studies). These are some of the organisations we have helped:

• **Charities** - We have teamed up with IK software, a business providing specialist Internet solutions, to make free, simple-to-build websites available to UK charities and community groups (see charities website leaflet for more information). This is an extension of our existing work with UK schools. Four thousand schools have already created some excellent new sites, developed and maintained by pupils and teachers. (See case study on how a mountain rescue team benefited)

• **Connected Earth** - This museum on the Internet, launched in 2002, is one of the largest virtual museums, providing information on the history of telecommunications (see Connected Earth for more information).

• **Tate Online** - We sponsor the UK's leading modern art museum's virtual gallery, the UK's most visited arts website. The site is powered by BT, which provides technical support, hosting and on-line broadcasting (see case study and Tate online for more information).

• **Netmums** - Netmums websites, supported by BT, provide local and general information for mothers looking after children, including contacts for new friends, where to find a toddlers' group and help on returning to work

• **UK National Council for Voluntary Organisations** - The Council's website provides a comprehensive online resource for voluntary organisations.

• BT Resource Bank - resources for teachers, parents and children on communication skills, including animated tutorials, quizzes and classroom activities. See more at Resource Bank.

It is essential to ensure that websites are accessible to people with poor eyesight. Since 2000, BT has worked closely with its own publishing communities to set best practice standards through the audit of sites by the Royal National Institute for the Blind (RNIB), benchmarking with other organisations and ensuring that our own publishing community continues to cater to the needs of all users.

Capability
Our digital inclusion campaign demonstrates how communications can help improve society.

A key element is the Everybodyonline programme, supported by BT and Microsoft. The project is run by Citizens Online, aa UK-based charity promoting the use of Information and Communications Technology (ICT) for all members of the community.

Working with local governments, communities and service providers, EverybodyOnline aims to ensure that those people disadvantaged by location, lack of skills or economic factors do not miss out on the benefits of new technology.

EverybodyOnline is being piloted in several small disadvantaged communities in the UK. The communities are the size of an electoral ward and have been chosen because they have below-average household Internet connectivity. They rank among the most disadvantaged communities in the UK on the multiple deprivation index.

Each project is co-ordinated by a locally based project officer. The role of the officer is to foster a network of local facilities, programmes, partners and volunteers. Using various forms of communication, the officer will work with the local community to understand their needs and to create a co-ordinated action plan to overcome the barriers to increased ICT and Internet access.

EverybodyOnline runs taster sessions where project officers equipped with wireless laptops visit places where people meet, such as community centres, retirement homes and church halls. People are encouraged to try out the technology and explore the opportunities provided on-line. The sessions have proved popular and some early participants now confidently shop and bank on-line.

See our case study about Margaret's experience at the Welbeck Green Bungalows' taster session.

"The real value of the EverybodyOnline project is its use of ICT as a tool for engaging with a community and helping the most disadvantaged acquire skills which may lead to new life opportunities." **John Fisher**, Chief Executive of Citizens Online.

EverybodyOnline - measuring progress
An independent research company measures the progress of EverybodyOnline, using three core indicators: Internet usage behaviours and attitudes, barriers to use and intentions to connect. The results provide evidence of the project's qualitative impact and help project officers develop their plans.

Research in the areas where EverybodyOnline operates shows a steady increase in Internet use and confirms independent findings that younger people show more interest in the Internet than older people. EverybodyOnline is working to ensure that elderly people are given the opportunity and encouragement to use the Internet.

Income levels also have an impact on the level of interest, with poorer people being less interested than the well-off. These conclusions should not be taken as absolute because there are other influencing issues, such as regional differences in behaviour and the level of education.

For more information, see EverybodyOnline and case studies.

Children help promote digital inclusion
A BT-sponsored child-friendly website, called Internet Rangers, is part of a campaign launched in 2004 to help young people get their families on-line.

Our research found that children - particularly young teenagers - are the most effective spur to encourage reluctant parents or grandparents on to the Internet. Nearly one-third of parents and grandparents have been taught or encouraged to surf the Internet by a child aged between 13 and 16 years.

Nearly one in five parents and grandparents have either learned a new skill or been educated via the web following on-line help from a child aged between five and eight.

For more information see our case studies Children teach their grandparents how to surf the net and Children help promote digital inclusion.

eWell-Being - Celebrating great practice
Carol Borghesi, Managing Director, Customer Contact Centre, presented the winners of the third annual eWell-Being Awards with their certificates at 30, St Mary Axe in London on 14 March 2005. As Carol says: 'It's really great for BT to be involved in celebrating success. The entries have shown a huge range of innovation, demonstrating how ICT can bring people together. Selecting winners from such a strong field was not easy.'

BT has supported the awards, which recognise creative and inspirational use of communications technology to deliver environmental and social benefits, since their inception in 2002. BT also sponsors the Digital Inclusion and Disability Action category awards. As Mike Hughes, BT's Head of Environment and CSR campaign, says: 'BT has long recognised the benefits that creative use of communications technology brings. Our sponsorship of the eWell-Being awards forms an integral part of our contribution to a more digitally inclusive society.'

The Glasgow Homeless Network runs the Homeless Information Pages (HIP) project and won the award for Digital Inclusion. The project delivers training and advice to those in need through mobile drop-in facilities which visit hostels, and day centres across the city. The project is delivering the skills needed to help people return to work as well as allowing them to keep in touch with their families through email. In the words of the judges: "A well integrated project, addressing the issues of access to and skills and confidence to use communications technologies for a difficult to reach part of society."

Funky Flamingo is a Cambridge club for disabled young people which won the Disability Action award. The club is run by and for the youngsters who are able to use all sorts of communications technology to organise and create the content for their club nights. Using computers

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they create their own music, lighting and videos. As Lorraine von Gehlem, project coordinator says: "ICT levels the playing field and allows disabled people to do what we do, participating in the community and sharing creative experiences, not just with people in the next village, which they could not do before, but all over the world."

Other award category winners were:

• eGovernment (sponsored by I&DeA)

• Birmingham Libraries for their project helping children with their reading and writing skills through the 'Stories from the Web' initiative

• Environmental Efficiency (sponsored by Brother)

• UK Phenology Network, an ambitious project using IT to record changes in flora and fauna caused by our changing climate

• Mobility (sponsored by Local Transport Today)

• Plymouth City Council for their network of street kiosks providing real-time public transport information as well as access to confidential free advice 24/7 on issues such as domestic violence and missing persons

• Wireless (sponsored by Vodafone)

• South Witham Broadband, a community broadband initiative bringing wireless broadband to a rural community.

More information on the awards is available at www.sustainit.org or in the ePublic section of the Guardian (media partner for the awards) on 16 March 2005.

Global projects
LifeLines India
The future success of Indian agriculture - now labour-intensive - will increasingly rely on knowledge and information. BT is working with OneWorld, the development charity, to provide farming information over the telephone to poor Indian villagers.

The LifeLines India project is being tested in 58 villages in northern India. Villagers can use the telephone to get information on agriculture, animal husbandry and agribusiness. The information is supplied by agricultural scientists in India.

Our partners include Cisco and MahindraBT.

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The Glasgow Homeless Network, Homeless Information Pages (HIP)
Paula Miller is beginning a tutorial on how to use the Internet. Three men are sitting in front of wireless laptops as Google shimmers on the screens. She barely finishes her first sentence when Gerry, who is attending his second session, has already typed a word into the search engine: 'acupuncture'.

"Me and Thomas had it last night and it was brilliant. Best night of sleep I've ever had. I want to find out a bit more about it, like," he says.

This class is taking place in the Dolls House, a small building which is part of Turning Point, a drug crisis centre in Glasgow. This turquoise-painted room is one of 13 settings for HIP in Glasgow, the Homeless Information Project run by the Glasgow Homelessness Network - winner in the digital inclusion category.

The project is aimed at people affected by homelessness and involves a mobile ICT unit which travels to places which homeless people frequent, such as hostels, day centres and crisis accommodation. It offers tutoring in computer skills and the chance to move on to further training in IT. But most of all it gives access to a world which otherwise might be out of reach of the target group.

"One problem is that homeless people can be excluded from places where you can access the Internet," says Miller, HIP learning resource worker in IT training. "For example, you need proof of address to use it at libraries."

Although it started in 2002, the project has been running properly for two years. "The starting point was the need for a website for people affected by homelessness to access information that was relevant to them," says development coordinator

Margaret-Ann Branjes. "Then we had to make sure that the site was accessible to the people who needed it most."

The key to its success, she believes, is good partnership working, using decent equipment - and making sure the funding is in place. The project is currently bidding for £215,000 to keep it going for a further three years.

In the last two years, HIP in Glasgow has delivered training to around 500 individuals and, since October 2003, the website has had more than 4000 visitors. Around 20 people have moved on to mainstream training, but, importantly, the vast majority of those who have taken part have felt the benefits. "There are often queues of people wanting to check their email when the tutor arrives," says Branjes.

Certainly Gerry is thrilled. The unemployed father-of-two has had a rough time lately. His relationship broke down, then his mother developed cancer and he ended up living in a hostel for homeless people before going to Turning Point in an attempt to "sort my head out".

Now, with a bit of help from Miller, he's found an acupuncture map of the body which he's copied and pasted into another file, which he'll take away with him on a floppy disk to print off.

Thomas, a chef from a small town near Glasgow, has also had some success.

"My son's always been on at me to learn about computers but I haven't liked to," he says. "But I'm going to ask him his email address when I phone tonight and maybe I'll be able to send him an email next week."

Miller has been working for the project for two years and clearly finds it hugely satisfying. "Family is often very

important to the people who are taking part, so finding a way of being in touch through email can really mean a lot to them.

"And sometimes people just want to print out a special poem and send it to their child or their mum. That can be really touching."

Article written by Jennifer Trueland, for the Society Guardian eWell-Being Awards supplement 16/3/05. Copyright Guardian Newspapers Limited 2005

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Disability Action winner Funky Flamingo

Anyone who doubts the liberating power of computers should visit a Funky Flamingo club night in Cambridge. At first glance there is nothing unusual about the club, populated with young people dancing to the latest pop music. But, in fact, it is a rare experience for both participants and organisers, all of whom are disabled, some severely, and this is reflected in the level of their enjoyment and the exuberance of the occasion.

The scene is largely the result of advances in software and gadgetry for accessing computers, sound or video production systems, and DJ equipment that make it possible for the disabled not just to participate but also organise and create the content for such nights.

Although club nights, usually held three or four times a year at the Junction club in Cambridge, are the focal point, the real achievement of Funky Flamingo has been in making it possible for disabled people to overcome their limitations. Through workshops held once a week, and interaction via the Internet, club members can enjoy the artistic experiences taken for granted by the able-bodied in music, video production and creative writing, says Lorraine Mongalen, Funky Flamingo project coordinator.

"ICT levels the playing field and allows disabled people to do what we do, participating in the community and sharing creative experiences, not just with people in the next village, which

they could not do before, but all over the world," says Mongalen. They can do this via a website allowing them to post profiles of themselves, although Mongalen says there is some way to go before this becomes fully interactive.

So far, Funky Flamingo's greatest achievements have been in facilitating local interaction through music and video. One innovation enables disabled people to control sound and video using their fingers to interrupt an infra-red beam. "We used a system called Soundbeam that originally used infra-red beams to control audio clips, but we've brought in ICT specialists who have developed a way of using it to trigger video clips," says Mongalen.

"It means people only have to move a little finger to express themselves."

Such features clearly impressed the competition judges. "Picking a winner was tough, but we plumped for Funky Flamingo because it had that bit of extra flair and excitement about it," says John Lamb, one of the judges and editor of Ability magazine, a campaigning publication for people who have difficulty using ICT.

But the people most impressed are the club members themselves, many of whom have happy memories contributing and participating in the events. "I still keep thinking and dreaming about the club night. That's going to stay in my mind for a long time," says Max Roberts, one of the club's DJ trainees.

Being able to perform as a DJ also appealed to one of the club's band

and steering group members, Chris Butler, who says it has given him the experience of working in a team.

Yet there is so much more that can be done with IT to improve quality of life for the disabled, even with currently available equipment and software, says Mongalen. It all comes down to funding in the end, and, unfortunately, Funky Flamingo's grant runs out in September. "It would be tragic if we had to say to these people that the club is ending," says Mongalen. But hopefully the opposite will happen and similar clubs will open and flourish up and down the country.

Article written by Phil Hunter for the Society Guardian eWell-Being Awards supplement 16/3/05. Copyright Guardian Newspapers Limited 2005

Online access to mountain rescue information

A Scottish mountain rescue team is one of more than 1000 voluntary organisations that have taken up our offer with web-builder ik.com to make free, easy-to-build websites for UK charities and community groups.

"We had been considering creating a website for a good couple of years but no-one had the time or expertise to do it," says Stuart Ballantyne, secretary of the Trossachs Search and Rescue Team in Scotland. "Thanks to BT and ik.com we now have our own website and although it's in its infancy we are receiving positive feedback from other organisations and the public. We found creating the site very easy and editing is simple too - ideal for voluntary groups such as us."

Children teach their grandparents how to surf the net

The Grandparents to School event held at St Stephen Churchtown Primary School, Cornwall, UK, in February 2004 attracted 100 grandparents to learn about computers and the Internet. All classes in the school had a half-hour slot in the IT suite with their grandparents and many of the children proved to be experts at helping their relatives surf the net.

"Our feet didn't touch the ground until the grandparents and grandchildren stopped for lunch," said Ann Tomkins, a project officer with EverybodyOnline, a project run by UK charity Citizens Online with the support of BT. Working with local governments and service providers, the project aims to ensure that those people disadvantaged by location, skills or economic factors do not miss out on the benefits of new technology.

Children help promote digital inclusion

Sophie, 12, and Chloe Davies, 10, from Neath in South Wales, have been budding Internet Rangers since Christmas 2000 when they got their first computer. The girls use the Internet mainly for homework and emailing friends, but last year persuaded their grandmother, Pat, 71, to try using the Internet.

Sophie says: "Grandma needed quite a lot of persuading as she didn't think she'd be able to use the Internet. She also said that there wasn't anything she'd want to see on the net but Chloe and I found a site with lots of pictures of Neath in the old days and one on how to be a gardener. I think we helped change her mind."

After a few lessons with the girls, Pat enrolled on a computer class at her local community centre.

Pat says: "I had the opportunity of doing a number of different classes but the girls had already shown me the basics of how to use the computer so I decided to give it a try. Once I got over the fear factor and put the idea of being too old to learn out of my mind I was fine. The course was really interesting and, of course, I had Sophie and Chloe on hand to help me with the homework! I now have my own PC and have just started another course - this time in desktop publishing."

Learning difficulties no barrier to gaining IT skills

Peoples First, based in Porth, Wales, helps people with learning difficulties gain IT skills. The organisation is sponsored by EverybodyOnline, an initiative run by charity Citizens Online, supported by BT and Microsoft.

Informal IT courses organised by Peoples First, were such a success that larger premises had to be found to accommodate the demand. Many of the learners were students who could step up to more formal learning using their new IT skills to gain formal qualifications.

Dawn Price from People's First says: "It has been such a benefit for our clients to be able to see what the Internet has to offer and to learn on up-to-date equipment."

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Budgie fancier finds fellows on-line

"I did not even know how to switch a computer on, let alone use it," says Frank Jones, 72, of Audley in Staffordshire, UK, a budgerigar fancier and amateur gardener.

After lessons from Ben, his 14 year-old grandchild, failed to get him started, Frank signed up for a course at the local adult centre run by EverybodyOnline. This is an initiative devised by the charity Citizens Online, supported by BT and Microsoft.

Frank soon learned the basics. "I have joined an on-line budgerigar group, with a membership of 250, who live all over the world. I now correspond with fellow fanciers from Australia, Canada, New Zealand, Pakistan and the USA. We talk about our hobby and discuss general subjects. I receive photographs on a variety of subjects, in the form of email attachments, which I print and share with friends."

The use of digital pictures on the Internet led Frank to buy a digital camera on-line and he is now learning how to manipulate and enhance images.

"It's a whole new world out there, just waiting for you," he says.

Keeping young people off the streets

Young people in Audley and Bignall End, UK, complained that they had nowhere interesting to go to keep them off the streets. This is why Youth4Audley was set up in 2003 and immediately developed a project using art, media and information technology.

Showing extreme resourcefulness a venue was found, personal computer applied for (and gained from BT) and funding found from a charity and local government. Working with EverybodyOnline (supported by BT) and others, the young people met with many of the elderly residents to find out what the area had been like in their youth. They then built up a digital library of stories and photos, past and present.

In March 2004 Youth4Audley presented a multi-media show celebrating Audley and its people and bringing together old and young in the communities.

Giving community groups the opportunity to acquire new ICT skills

BT supports EverybodyOnline's initiative to organise taster sessions for people with no experience of computers, to give them a chance to explore the opportunities provided by information and communications technology (ICT).

Margaret Temple is one of 41 residents aged between 60 and 90 at the Welbeck Green Bungalows housing complex, near Newcastle on Tyne, UK. The residents have been regularly visited by an EverybodyOnline project officer since May 2003 and provided with Internet access from laptop computers and mobile telephones. Margaret has learned how to use Microsoft Word, send emails and search the Internet for information.

Margaret is a lay preacher and previously used a typewriter to produce her sermons. She is planning to buy a laptop computer and printer. She has also decided to take more training to further improve her IT skills.