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# The digital divide, health information and everyday life

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## Abstract

Survey data confirms that health information is very popular with internet users yet relatively little qualitative social science research has been conducted about how people incorporate information from the internet into their everyday information practices. This article reports on an empirical study of the role of the internet in people's efforts to inform themselves about menopause and hormone replacement therapy (HRT) in the case of women, and erectile dysfunction and Viagra in the case of men. These experiences are used to interrogate the notion of the 'digital divide'. We develop the concept of access to incorporate not only physical connection and information literacy, but also gendered and generational social relations. We also develop Barkardjieva's concept of the 'warm expert' to draw attention to the different types of information that people need in order to make sense of generic medical information that is relevant to their own circumstances.

## Key words

access • digital divide • everyday life • health information • resistance • warm experts

## INTRODUCTION: A STORY

**It is a dark and stormy evening.** The library where Janet works is closed to staff and students. Only now can Janet go online for herself rather than to track down references for others. She wants to buy some books and CDs and maybe order some more vitamin pills. Last month she bought some natural progesterone cream online but has not yet tried it, so there is no need to buy any more just yet.

Recently, Janet was diagnosed with breast cancer. This was a particular blow because she had cervical cancer a few years ago and needed to have a hysterectomy. Immediately after, both the surgeon and her family doctor recommended that she start hormone replacement therapy (HRT). She really did not want to because she is a vegetarian and does not like taking such powerful drugs, especially as she was not actually experiencing any menopausal symptoms. About 18 months later, she started to feel quite tired, so she talked with her doctor about taking some low dosage HRT patches, a form of HRT which is similar to that which smokers use when they want to quit. She tried just one patch a month but it did not do much, so she upped the dosage. The headaches were terrible, so she ripped off the patch and has not used anything since. Maybe she will try that natural progesterone cream she bought via the web from the US.

Janet does not discuss her health with many people. She does not want to worry her children so does not talk with them. She does talk to her sister, and to a male friend who shares her interests in alternative health. She also talks with both her doctor and her homoeopath. The latter is more helpful because he has more time to listen to her than the doctor, who is only supposed to talk to her for six minutes according to the guidelines issued by the UK Department of Health.

She likes the internet because it is there when you need it, unlike the alternative health magazines she buys every month. She likes the variety of information online, even though it can be bewildering. Even though she is a professional librarian, she tends to see where search engines take her when she is looking up information for herself, although she is careful to pay attention to who put the information up there. Janet does have a computer with an internet connection at home, but her 20-year-old son uses that so she prefers to stay late at work when she wants to do something online for herself.

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Janet's story illustrates some of the problems associated with the single most important public policy debate about the internet, the so-called 'digital divide'. The digital divide has become the overarching concept to capture unequal access to information and communication technologies (ICTs) at global and local levels. There are huge gaps between more and less

industrialized countries. For example, the United Nations Development Program (UNDP) reports that Organization for Economic Cooperation and Development (OECD) countries have 332 internet users per 1000 people but developing countries have only 26.5 users per 1000 people (UNDP, 2003).<sup>1</sup> Even within relatively rich countries such as the United States and EU Member States, concern is expressed about the ways in which some groups are particularly vulnerable to digital exclusion. These groups include the unemployed, people with low levels of education or income, ethnic minorities, immigrants, refugees, women and the elderly. This type of analysis, based on summary data, points to a potentially important source of inequality and disadvantage, but it masks the everyday experiences of people looking for information and communicating with one another. It is these experiences that this article brings to the fore, in order to question generalizations about the digital divide.

Janet is 51, and certainly not elderly. Nonetheless, she is an older woman and a single parent. She does not fit the stereotype of the young, male internet user and because of her age and gender, policymakers sometimes express concern that she may be one of the digitally excluded. Janet's experiences highlight the central argument of this article. First, her domestic situation illustrates how the availability of technology in the home does not necessarily mean that it is used there; in her case, because her son dominates the use of the home machine. Second, given her professional training she is not particularly in need of help in finding information, nonetheless even with her training she sometimes finds health information bewildering. Later, we will introduce the concept of the 'warm expert' in order to draw attention to the range of skills that people need in order to be able to make sense of complex information.

In this article, we draw on Janet's story and those of others in order to explore the role of the internet in people's efforts to inform themselves about menopause and HRT in the case of women, and erectile dysfunction and Viagra in the case of men. In the next section, we provide some broader context about online health information in order to locate individual experiences and we introduce two related themes central to our argument about the digital divide: access and the role of the warm expert in facilitating access. We then describe the study and provide some summary information about our participants before looking at more individual experiences.

## THE DIGITAL DIVIDE: POLICY CONSTRUCT AND LIVED REALITY

The development of the world wide web and the increasing commercialization of the internet began in the mid-1990s, making this huge network of information sources and communication possibilities available to ever-growing numbers of people (Castells, 1996, 2001; Slevin, 2000;

Thomas and Wyatt, 1999). Many extreme claims, positive and negative, have been made about the social, economic, cultural and political implications of this rapid diffusion. However, since the collapse of the dot com boom, more moderation is being expressed, as industrialists, policymakers and researchers remember that technological potentialities do not always translate into use and practice, and that new technologies are always introduced into existing social practices.<sup>2</sup> Two genres of body-related material have proved very popular with large sections of the internet population, namely pornography and health information. Internet research has also burgeoned in this period but, perhaps surprisingly, relatively little qualitative social science research has been conducted about either of these topics,<sup>3</sup> although survey data confirm their importance.

The most extensive internet data is about the US situation. Within Europe we continue to look to the US to see what an internet future might look like, even though the social, political and economic context of the US is very different from Europe, especially in terms of the organization of health care delivery. On the basis of US data, Castells (2001) and Compaine (2001) go so far as to conclude that the digital divide is a temporary problem which will disappear as equipment becomes cheaper, and that this will be the case not only within the US but also globally. The digital divide has become a catch-all concept to frame unequal access to technologies, both globally and locally. Cammaerts et al. (2004) argue that dominant discourses concerning the digital divide represent the unequal distribution of access to technology, content and capabilities as a linear and monocausal relationship, whereby not having access automatically leads to social, political and economic exclusion. Elsewhere, some of us (Henwood et al., 2000) have, like Cammaerts et al. (2004) and Mansell (2002), questioned these simple equations of digital inclusion with social inclusion and technological progress with social progress. It is important to understand the ways in which much digital divide policy and literature relies both on its binary structure and its appeal to technological determinism in order to mobilize policy resources (Gunkel, 2003).

Anticipating Hargittai's (2004) call to find out more about non-users, Wyatt et al. (2002) have gone so far as to suggest that some people might choose not to use the internet and that this choice does not always reflect a position of disadvantage. They identify four categories of non-use:

- (1) the resisters – those who have never used the internet because they do not want to;
- (2) the rejecters – those who have stopped using the internet voluntarily, perhaps because they find it boring or expensive;
- (3) the excluded – those who have never had access but would like it; and

(4) the expelled – those who have lost access involuntarily.

These are the digitally excluded, but the first two groups may well be exercising agency in choosing not to have access and should not simply be dismissed as 'laggards' or 'luddites'.

A problem with much of the literature about the digital divide, including Wyatt et al. (2002), is that it remains at an abstract level by focusing on the generic or ideal user without examining the everyday practices of people looking for information, and if and how the internet is inserted into those practices. Increasingly, large-scale studies such as the Pew Internet and American Life Project and the Oxford Internet Survey are developing more nuanced measures of internet use. Academic analyses, such as Katz and Rice (2002), which draw upon these and similar forms of analysis have much to offer in understanding the ways in which larger patterns of use change over time. However, these types of analysis need to be complemented by analyses of the everyday experiences of users in order to understand better the multiple and varied nature of both access and the digital divide.

In March 2002, the Pew Internet and American Life Project conducted a survey of US-based internet users. They conclude that 62 percent of internet users (73 million people) have used the internet as a source of health information, which is up from 52 million in November 2000 (Fox and Rainie, 2002). Thus, on any single day more people go online for health information than visit their own doctors. Datamonitor, a commercial consultancy organization, also published a report in 2002 about online health information, based on a survey of 4500 adults living in Europe as well as the US. They found that of those who looked for health information in the past year, 57 percent went online, compared with 76 percent who consulted their doctors, 73 percent who used mass media and 53 percent who talked with friends and family.<sup>4</sup> They also find that women and people under 55 are more likely to consult online sites than men and people older than 55 (BBC, 2002; Datamonitor, 2002). As with all statistics about the internet, these two surveys are inconsistent with each other and need to be treated with caution. Much internet data is produced by commercial organizations with a strong interest in promoting sales of internet equipment, products and services (Jordan, 2001). Indeed, the conclusions of the Datamonitor report are all about the implications for industry and the report itself costs US\$1900.

Figures such as these clearly indicate that health information is important and interesting for internet users. Such data provides a profile of the generic user, of interest especially to pharmaceutical companies, health care practitioners and policymakers. It can be used to support the widespread assumptions in policy literature, as well as in medical sociology and internet studies, that the greater availability of information via the internet

necessarily leads to more informed patients and more equal patient–provider relationships. However, such data do not reveal anything about the situated practices and everyday experiences of people grappling with their health and with a multiplicity of information sources, and it is those experiences which are the focus of this article.

In the past decade, everyday life has come more to the fore within technology studies (Bakardjieva and Smith, 2001; Lie and Sørensen, 1996; Silverstone and Hirsch, 1992). Instead of focusing on sites of production and work-related uses of technologies, scholars have drawn attention to the everyday practices in which uses and meanings of technologies are negotiated, appropriated and lived by ‘ordinary’ people. This does not mean that private or household use becomes the sole locus of study, but rather the focus is on the individual who negotiates meanings and practices in a variety of settings. Clearly, this work builds on the insights of Bourdieu (1977, 1984) and de Certeau (1984) by taking seriously both the symbolic and material nature of artefacts and the roles of both in producing social relations. We share with them a concern for inequality and its reproduction as well as a perception of the active nature of consumption, and the possibilities for resistance that people can exercise in their daily lives. In the following pages, we are concerned primarily with gender and generational differences as they are articulated in everyday practices of internet use.

We begin with the individual internet user, following Turkle (1995) and Bakardjieva (2003). Whereas they focus, respectively, on the ways in which people use the internet for games and on processes of domestication, we focus specifically on whether and how the internet is incorporated into everyday practices for retrieving health information. We recognize that people have a wide range of sources of health information available, including the mass media, health care professionals, family and friends. We are interested in how the internet fits into these existing information landscapes and how it is incorporated into people’s constantly evolving practices.

We also draw on the work of Bakardjieva (2001) who introduces the notion of the ‘warm expert’ – someone with technical competence who is in a position to help a new internet user. A warm expert mediates between the specialized knowledge and skills necessary to use the technology and the specific situation and needs of the ‘novice’ with whom the warm ‘expert’ has some kind of more personal relationship. In her study of internet users, Bakardjieva finds that warm experts are essential in assisting in the process of learning and appropriation, even when novice users have followed formal courses of instruction. Of course, this is not confined to ICT and nor is it a completely new concept. First, for example, many people make use of friends, neighbours and relatives when learning to drive a car or installing their video recorder. Second, the value of informal learning has been shown

repeatedly to be important for helping inexperienced users to become familiar with the new machines in their midst (Stewart, 2003; Sørensen and Stewart, 2002). In our study, we look at whether warm experts are important for our participants in helping them to gain access to the internet. We also attempt to extend the concept by examining whether or not people draw on warm experts or intermediaries (Ellis et al., 2002; Wu and Liu, 2003) to help them make sense of health information itself.

## STUDY AND PARTICIPANTS

We drew upon the experiences of men and women living in the south-east of England who were seeking to inform themselves about some of the health changes associated with ageing, specifically erectile dysfunction and menopause, and their most widely-used treatments, namely Viagra<sup>5</sup> and HRT.<sup>6</sup> Neither menopause nor erectile dysfunction is acute or life-threatening, and symptoms can persist over a long period of time. Thus, people have time to inform themselves both about the condition and possible treatments, should they so wish. We examine the ways in which the internet is used as a medium for accessing and communicating health information.

Interviews were conducted with 32 women and 15 men which included questions about their reasons for considering HRT or Viagra, their understanding of how the medication works and their perception of its advantages and disadvantages. Participants were asked about their awareness and use of alternative treatments. In addition, they were asked about whether and how they looked for health information generally, as well as for HRT, Viagra and other treatments for their symptoms. People were asked where they look for and where they find information; by what means they find it; how they interpret and make sense of it both for themselves and in negotiation with others, including in consultation with health care practitioners. If people used the internet, they were asked for how long they had done so and for what purpose they used it. If they used it for finding health information, they were asked how they did this, as well as the advantages and disadvantages of the internet as a source of information. Nearly half of the participants – 16 women and five men – were interviewed a second time, six to nine months after the first interview, in order to discuss any changes in health, treatment and information-seeking behaviour.<sup>7</sup>

The women were recruited via a family doctor or gynaecological clinic in a city in the south-east of England. The men were recruited via a urology clinic, psychosexual counselling service for men suffering from erectile dysfunction, or diabetes clinic. Women and men who are taking, have considered taking, or have recently stopped taking HRT or Viagra were considered for inclusion in the study. Interviews, each lasting between one

and two hours, were conducted between November 2001 and January 2003. All interviews were audio-recorded and fully transcribed.<sup>8</sup> Most interviews took place within participants' own homes, although some were conducted in offices located within healthcare settings.

Of the 32 women interviewed, the average age was 55, with the youngest being 39 and the oldest 73. Eighteen were in a relationship. The men were older, ranging from 54 to 81, with an average age of 66. Ten were currently in a relationship. Our sample included people from a range of socio-economic groups, with varied educational experience and qualifications. Most, but not all, were heterosexual and most were white British.

It would be reassuring to believe that ageing is a 'natural' and unproblematic process, yet among both the male and female participants in this study, the medical situations were often complex. The range of symptoms, the prescribed treatments and the after-effects that were experienced all varied. The possible sources of information were enormous. So, how did our participants inform themselves about health matters? All drew more or less actively on a range of sources. For both men and women, the family doctor was the most important source. Family members, usually women, were the second most frequently cited source, with friends, pharmacists and alternative practitioners also mentioned. The media used included magazines, television, world wide web, self-help books, newspapers and other items such as leaflets from pharmacists or those provided by pharmaceutical companies with drugs. The most striking difference between the women and the men is that women have much more diffuse social networks, including family, friends, neighbours and colleagues, which they draw upon to talk about their health, whereas men talk primarily with their doctors and sexual partners.

This overview provides some clues as to the everyday life experiences of these people as they try to live with and inform themselves about different aspects of ageing. But let us now look more closely at some of them in order to discover more about how the internet fits into their information landscapes, and to reflect on the extent to which the digital divide is a lived experience by focusing on the conditions of access and the warm expert.

### **ACCESS: EQUIPMENT, SKILLS AND FEELINGS OF 'WARMTH'**

Nine out of the 15 men had internet connections, though one had access only at his workplace where he was not allowed to use it for personal matters. A few others were almost connected. One man had recently moved house and had not yet unpacked his PC or arranged reconnection with his internet service provider. Another had a new mobile phone with access, but he had not yet figured out how it worked. Yet another, Roger, did get access to the world wide web via his wife's work and with the help of her boss in order to find out about his health problems, but this was a one-off

occurrence and did not prompt him to seek more regular internet access. We will come back to Roger later. Of the 32 women, 24 had internet connections at home and/or at work.<sup>9</sup> Eight of the men and 20 of the women used the internet at home or work, but not all of them used it to find health information: three of the men and 18 of the women did so. Only two participants, one man and one woman, used the internet to visit online communities related to their health problems. Neither of them actually participated in online discussions.<sup>10</sup>

Not all of the women with home internet connections used them; including Janet, introduced at the beginning of the article, whose home machine was used mostly by her son. Barbara also talks about how her son used to dominate the home machine but he recently left home to go to university, so now Barbara can get access. Unfortunately, her son did not clean up the machine before he left. She discusses this with quite some feeling:

I've had a teenage son around for years who has been hogging the internet and he won't show me how to use it because I'm too slow. He's actually just gone to university so I have actually this week been trying to get it up and running and sort it out but it's in such a mess . . . The thing is, I turn it on and it takes 20 minutes to crank up . . . because he's put so much junk on there as they do, screensavers and this bit and that bit . . . I've got various neighbours who keep promising to come round and help me, so I'm getting close to it. I've actually been on a basic course now. I don't like it. I hate it . . . I have no interest in it at all. I just think it's absolutely boring. The thought of switching it on is like doing the ironing to me.

Even though Barbara's son tried to construct her as an older woman with no interest in or ability to use either computers or the internet, Barbara herself is resisting that construction. She understands why the machine is slow and has taken steps to inform herself further and develop her skills, through consulting neighbours and attending courses. She remains ambivalent and draws upon her domestic role when expressing her feelings of lack of interest and boredom.

Other women talk about their male partners rather than their sons and recount how these men have computers with internet access in the home, but the women themselves never use it. For example, Betty explains how there used to be a computer with an internet connection in the house, but it belonged to her ex-partner:

He took it when he moved out. I haven't got one any more . . . He used it mainly for work . . . I was going to think about starting to use it but unfortunately we split up.

Frieda talks about her husband:

He's got four computers upstairs. He does his work on them. He's retired . . . he's an architect . . . and he does extensions and insides and all like that but he can do it all on the computer. I wouldn't know how to switch it on.

These examples reinforce the earlier point regarding the care with which large-scale surveys about access to the internet need to be interpreted. These women live, or have lived, in homes with connected computers, but for various reasons have not used it themselves. Access is not simply a matter of kit and connections; nor is it only about providing people with the education and skills necessary to use the equipment. Access involves feeling comfortable with the technology and not being afraid of it. It also involves living in a household where the sexual division of labour enables women to get involved with the machines.

A traditional gendered division of labour exists in many households, with male partners and sons using computers so that women either did not use it at all or were forced to find some other place where they could get access. This gendering does not always follow stereotypical patterns, as in the case of Peter. Peter is 66 and separated from his wife. He has four sons, two of whom live with him. Peter left school before he was 16, and had his own small retail business until he retired shortly before the interview took place. There is a connected computer in the house, but his sons use it. While he feels some pressure to become a user, he says:

I don't use it. I can't be bothered . . . I should use the computer more, I just, I don't know, I just can't be bothered. I'm lazy about that. It's not my sort of thing. I'd rather pick up a phone and talk to somebody rather than send them an email which I find takes too long.

When prompted about earlier experiences with email, he replies:

I don't get on with it at all. I sort of mess up the thing. I either lose my letter somehow, press the wrong button or it does not go through properly. Always loads of trouble with them.

Peter's preference for the immediacy and presence offered by the telephone, and his self-confessed incompetence in dealing with email suggests that age and generational factors, as well as gender, are important in people's experiences of using the internet.

Victor's story is an even greater challenge to traditional stereotypes which equate masculinity and technology. Victor is 59 years old. He is married and has three adult children. He has a managerial job and a tertiary level qualification. For about a year, he has felt he has had a low sex drive. He gets an erection but then does not feel like engaging in sexual activity. He felt this was very disappointing, although his wife never indicated it was a problem. He has taken Viagra and did get an erection but then did not feel like sex.

Victor talks first with his wife about health problems, and then with health professionals. He does not look at self-help books but does glance at the health pages in the newspapers, both a tabloid and quality newspaper. He looks at notices in waiting rooms, and says that he tends to take information at face value. He says he has never been in the situation of having conflicting information about health matters. He likes to talk with his wife because it enables him to explore all the possibilities and/or confirm what he is feeling. He does not look things up before going to a medical appointment. Victor has never used the internet but is thinking about getting a home computer for business purposes. This part of the interview is reproduced below:

*Interviewer (I):* Do you have access to the internet at all at the moment?

*Victor (V):* I could get access to it via my daughter or her boyfriend.

*I:* But you don't use it?

*V:* No.

*I:* Have you ever used it?

*V:* No.

*I:* But you're thinking about it, aren't you?

*V:* Reluctantly.

*I:* You say 'reluctantly' because . . . ?

*V:* I find technical tasks not easy to get to grips with.

*I:* Not your scene?

*V:* No.

*I:* So why are you considering using it now?

*V:* I think if I could master it it would make my part-time work a lot easier.

*I:* Do you think you'll ever consider looking up health information on the internet?

*V:* I think it's unlikely.

*I:* Because?

*V:* Because I think I'd rather look it up in a book if I really wanted it, or talk to the doctor.

*I:* I'm wondering why that might be the case.

*V:* [irritated] I'm not interested in computers. I just want to get on with my life in the easiest way. I can't see what benefits it would give me. I'd rather hear it from the horse's mouth and talk to someone, not get lost in cyberspace. Seems bloody obvious, and a waste of time doing this research I reckon.

Victor was pressed by the interviewer to be explicit, and clearly feels defensive when attention is drawn to his non-use of the internet. Nonetheless, his hostility to computers, the internet and our research seems genuine and perhaps can be interpreted in two ways. First, he could be seen as a challenge to the usual male-technology equation (Faulkner, 2000; Lie, 2003; Wajcman, 2004) in which men are considered to have privileged access to technology and technical skills. Clearly, Victor does not feel he has any such privileged access, neither in relation to computers nor in relation

to technical tasks more generally, as he says he finds it difficult to grasp technical tasks. Second (and this is speculation), it might be easier for him to express his frustration at computers, the internet and the interviewer than it is for him to express his frustration at not being able to have intercourse. Masculinity and technical competence are mutually constitutive. As both the ability to use technology and the ability to have intercourse are often equated with masculinity, then perhaps his frustration with the latter is being expressed in terms of the former.

Peter is a 'rejecter', the second category of non-use described above. On the basis of admittedly limited experience, Peter finds the internet, at least email, rather boring. He has tried it, but feels it is not for him as he prefers the immediacy of other communication media. Victor, however, is clearly an example of a 'resister', the first category of non-user identified earlier. He really cannot see any value for himself in using the internet. As far as he is concerned, there are perfectly adequate alternative ways of informing himself.

So far, we have extended the concept of access by looking at the gendered and age-related social relations which affect people's ease of use and access. We now turn to the role played by warm experts in helping our respondents to gain access. There are many examples of family members, particularly younger ones, helping our respondents to get online, for example, by giving them old computers when they upgraded, showing them how to use the internet, doing searches and sending the results via email or traditional post.

Sue's daughter played the role of a warm expert. Sue, aged 51, does not have any educational qualifications. She has had a linked PC at home and work for two or three years. Her daughter helped her to get started and Sue is now confident in her own ability to find information. She tries different search engines and search terms and if she thinks something is interesting, she prints it. She looks at the site to help her decide whether it is trustworthy and she compares information from different sites for consistency, one of only a small number of participants to do so.<sup>11</sup>

*Sue:* I notice [the type or source of a site] and I must admit when you get a lot of American stuff up, it really . . . Why can't I have some English medical knowledge or something like that? So I do notice where it comes from.

*Interviewer:* What's better about English medical knowledge?

*Sue:* I just find the American stuff too precious really. They go on and on.

She likes the internet because you can look things up immediately but she thinks it could make you 'worry more' and sometimes the volume of information is a bit much. Sue's wish to have 'English medical knowledge' as opposed to American, suggests how important it is to have health

information that is relevant to one's own situation, and how trust may be influenced by contextual factors.

The concept of the warm expert is a useful one because it draws attention to the social relations of new technology. We extend the concept by introducing another dimension; namely, helping people interpret and make sense of the information found. One of the more elaborate examples was referred to earlier: Roger went to his wife's workplace, an accounts office, where her boss helped them both to find information about prostate cancer, with which he had been diagnosed. Roger was amazed at the amount of information they were able to find:

There's pages and pages. Some of it was just irrelevant. I suppose it was stuff that I did not really want to know. I suppose doctors and surgeons . . . would want to know that but it was well beyond me . . . It [felt like a problem] because of not being familiar with PCs and how to get into them.

The wife's boss, an accountant, was able to provide physical access and even help to find information that was broadly relevant. Perhaps the boss did not have the appropriate medical skills or perhaps the two men did not know each other well; in any event, the boss was not able to help Roger to interpret the information that was found in a way that was meaningful for Roger. Roger feels his son might have been able to provide more assistance and in the more comfortable setting of a home rather than an office, as he says:

Probably if I'd used my son I'd have been all right. I could have sat down with him at home in his own home.

But Roger did not consult his son because he did not want to worry his children about the cancer diagnosis. Fulfilling the role of warm expert is not straightforward. Roger's son has the equipment, the skills and seems to share a close relationship with his father, but because of the sensitivity of the topic Roger did not feel he could ask his son for help on that occasion. Thus, the conditions in which warm expertise is asked for and offered also need to be contextualized.

John, aged 57, is gay although he was married for 18 years. About two and a half years ago, he began to have problems achieving an erection. He bought some 'natural Viagra' from a magazine but it did not work for him. He uses 'real' Viagra, but that only works if both he and his partner are aroused. He talks with his sexual partner(s), stepdaughters and health care professionals about his health. John has been using the internet at home since the end of 2001 for email, finding out about holidays, cars and work but he does not look up much health information. He finds it takes too much time and would prefer to talk to his doctor. When talking about his internet use, he says:

I was interested in holidays . . . But I wasn't interested in looking up my health issues, because I got it sorted. It's only when you want the information then you go and find it. So, if you're not ill, why look up how to mend a broken arm if you haven't got a broken arm?

When he first experienced erection problems, he and his partner did look up information. This now ex-partner, an information technology consultant, fulfilled the role of warm expert: he helped John to get online and find the health information. Like Sue and Roger, John also wanted information that was relevant for him personally. When he or his partner thought that they might have found relevant health information, they often checked out the individual and the institution:

Some of it came from American case studies . . . We actually checked up on some people and some were from the universities themselves . . . A lot of it was nothing to do with my case but it was interesting to see how they put things together and how they arrived at an end result . . . It takes time to find the actual information about me . . . You're reading stuff through to see if does concern you and, say, 70–80 percent of the time it doesn't. It's interesting but it wasn't my problem and it didn't concern me.

While John found the process of finding information interesting, he experienced some frustration at not being able to distil the information that would be appropriate for his own health condition. Like Sue and her desire for 'English' medical knowledge, and Roger who recognizes that some of the information might be useful for health care professionals although not for him, John wants to move beyond the generic medical body of medical literature for something that is useful to him. Sue, John and Roger all drew on the help of warm experts to help them gain access to the equipment and to the internet and world wide web specifically. Their experiences suggest that this kind of physical access and help is not always enough, as warm experts are also needed to negotiate the complexity of the information found.

## CONCLUSION

We have focused on women and men in mid-life seeking information about menopause and erectile dysfunction in order to ground this study in a particular experience, and to enable us to focus on the middle-aged, a relatively under-studied group of internet users. In this article, we have demonstrated that a perspective based on an examination of people's everyday life experiences of using the internet and looking for health information has proved to be a fruitful way of moving beyond the stasis and polarization reflected in the digital divide concept. The digital divide cannot be understood simply in terms of 'haves' and 'have nots'. While we have presented the example of Victor, who neither uses nor accesses the internet,

the article focuses primarily on people who would appear as 'haves' in statistics about people with domestic internet access. We have shown that 'access' is not a simple case of having connected computers. Data about the number of households with access obscure the complexities of domestic relationships. Although Janet uses the internet at work for personal purposes, she does not use it at home very much because her son dominates that machine. Other respondents, women and men, report that they lived in houses where there were connected PCs but that they did not go online, usually because the home machines were dominated by sons or male partners. Access involves much more than being in the vicinity of the right type of equipment: it also includes the gendered and generational social relations which form the context in which people's daily interactions or non-interactions with the internet take place.

The categories developed by Wyatt et al. (2002) are useful in understanding both passive and active resistance (Bauer, 1995; Rogers, 1986) as well as drop-outs (Katz and Aspden, 1997). Peter and Victor's stories require that we think again about the optimistic and universalist claims made for the internet. These stories also require that we think again about the structure-agency problem (Giddens, 1984). Given that Peter and Victor are relatively ignorant about the internet and its possibilities, is it correct to say that they are exercising agency in their lack of engagement? Even if the behaviour of Peter and Victor is better characterized as passive avoidance, the effect, as far as policymakers and suppliers are concerned, is still resistance.

Inspired by Bakardjieva's (2001) concept of the warm expert, we were able to develop it further based on our analysis of the issue of access to information. Providing access to equipment is certainly not enough, neither at the individual nor social level, to enable people to make sense of the complex information they may find when seeking to inform themselves about health matters. Just as in the broad digital divide debate, we argue that it is important to consider the different levels at which warm experts can operate, providing access to equipment, skills and information. As we discussed in the second section, it is recognized increasingly that access includes the ability to find and make sense of information found online. We go further, suggesting that it also includes the ability to make sense of generic information that is relevant to one's own circumstances. General information about health conditions and treatments is not always what people want or need. Warm experts can facilitate access and be important mediators of technical know-how and the use of search engines and databases, as in the case of Roger and his wife's boss. But people also need help in order to make sense of complex medical knowledge. Warm experts are vital, not only in helping people to incorporate computers and the internet into their everyday practices, but also in helping people to

understand the relevance of medical literature and other health information for their own situations.

In the study reported here, we have found mainly instances of 'good' warm experts. We do not wish to suggest as a result that warm experts are always and necessarily helpful. As Katz and Aspden (1997) found, people were more likely to stop using the internet if they had learned about it from friends and family than if they had received more formal training. Moreover, people already exist whose task it is to help others understand complex information, such as librarians or doctors, in the case of medical information. Increasingly, software (Gobel et al., 2001) is available to help people choose which information is most suitable for their interests and circumstances, versions of Negroponte's 'Daily Me' (1995). Clearly, more research is needed in order to understand the different human-machine configurations which may (or may not) help both novice and more experienced users make sense of an ever-increasing volume of information.

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### Notes

- 1 Warschauer (2003) analyses the process of diffusion of internet technologies in poorer countries. He pays particular attention to issues of literacy and education.
- 2 See Woolgar (2002) for a systematic questioning of the hype around new ICTs, including the internet and an explanation of the approach of 'analytic scepticism'. See Williams (1990[1975]) for a reminder of his dictum, 'new technologies and old social forms'.
- 3 There are, of course, exceptions to this generalization; for health, see Burrows et al. (2000), Hardey (1999, 2001), Rice and Katz (2001); and for pornography, see Slater (1998) and Thornburgh and Lin (2004).
- 4 This adds up to more than 100 percent because respondents were allowed to list more than one source.
- 5 Viagra has been available as a treatment for erectile dysfunction since 1998, and has since become Pfizer's best-selling drug. As any internet user knows, the internet seems to be an ideal medium for distributing information about Viagra, regardless of whether one is actually looking for it or not.
- 6 HRT is a general term for a range of treatments which have been available since the 1960s. It is often offered to women during menopause or following a hysterectomy.
- 7 In addition, interviews were conducted with 10 health care practitioners, and 16 consultations between patients and practitioners were observed. This data is not drawn upon in this article.

- 8 See Henwood et al. (2002) for a fuller discussion of our methodological approach.
- 9 The Oxford Internet Institute (2003) conducted its first UK survey in May–June 2003, in the middle of the period during which we conducted our interviews. They found that 64 percent of working-age women and 74 percent of working-age men used the internet, but only 18 percent of retired women and 25 percent of retired men did so. Our respondents span the working age–retired age range.
- 10 As Burrows et al. (2000) suggest, online groups based around health problems can provide patients with an important source of emotional support as well as knowledge with which to engage with healthcare professionals. However, our study suggests that not all patients are keen to take up this opportunity. In the case of women and menopause, this may be because menopause is so common that women have many other opportunities to discuss it. In the case of men and impotence, while online groups provide a potentially anonymous and perhaps easier environment, many of our respondents indicate that they are not actually keen to discuss such problems, in any fora, online or otherwise.
- 11 See Henwood et al. (2003) for a fuller discussion of our participants' searching behaviour.

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