3

Motivational Access

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INTRODUCTION

The first phase of access, considered as a process of full appropriation of the new digital technologies, is a preliminary condition of all other phases. It is the motivation of potential users to adopt, acquire, learn, and use these technologies—computers and Internet connections in particular. The appearance of this motivation should not be taken for granted. This is often done by both uncritical admirers of the digital media and technology pushers who want people to use computers and get connected to the Internet the sooner the better, as if this would automatically solve their problems. In this chapter, we observe that our societies do not only contain information and technology have-nots but information and technology want-nots. Some people are not intense seekers of information and communication. Others do not like computers and are not attracted to the Internet. In the next section, I attempt to identify who these want-nots are. Even in developed countries, about 20% of the adult population declines to use computers. According to particular surveys, about half of those currently not connected to the Internet in these countries explicitly refuse to get connected. Lack of motivation is not limited to the reluctant; it also is present in adopters who rarely or irregularly use these new media.

In the third section, I focus on the computer and Internet dropouts and on the people who are temporarily or permanently disconnected. Here we note that user populations are continually shifting. Many people do not get access once and for all, to keep connected for the rest of their lives. They drop out for some time, or they pull out forever. Some become heavy users, others lose their interest in frequent use of the technology.

What are the reasons for this presence and absence, this rise and fall of motivation? The process appears to be composed of a complex series of backgrounds that is difficult to unravel. It varies from relatively simple lacks of interest, time, money, and skills to a difficult-to-grasp mixture of technophobia, computer anxiety, lack of self-confidence, and a particular image of the self in relationship to the technology concerned. Here, I analyze these reasons and link them to the resources and the personal or positional categories of people distinguished in the former chapter. I argue that most of these reasons are completely rational and based on proper experience. The finger should not be pointed at backward people refusing to adopt a technology that could bring them prosperity; instead, it should be directed to digital technology itself, which offers insufficient surplus value or fails otherwise, for instance in user friendliness, safety, and attractiveness. Here we might find solutions to problems of motivational access, in case people are looking for them.

❖ THE HAVE-NOTS AND THE WANT-NOTS

If we look for reasons people offer for not having computers or Internet access in surveys of computer possession and network connections, we will find a mixture of motives that indicate both a condition of deprivation and lack of motivation. Clearly, many of the have-nots also are want-nots. These two aspects are extremely difficult to separate. Some people with a lack of means rationalize their condition, indicating that they do not want or need the resource under consideration. Others really are not motivated to adopt the new technology, and they will deliberately spend their money elsewhere. To unravel the two aspects, we need to take a closer look at the motives people give for not having a computer and Internet access. A survey among 501 German offliners in 1999 revealed the following reasons for not buying a personal computer (PC).

Figure 3.1   Reasons Mentioned by German Offliners in 1999 for Not
Buying a Personal Computer (N = 501)
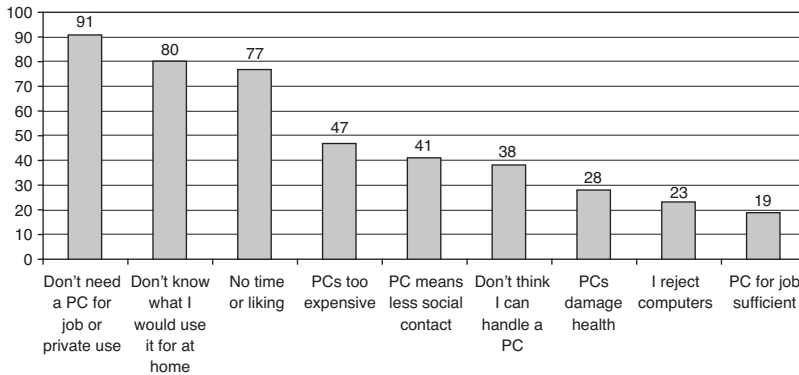
Source: ARD/ZDF-Arbeitsgruppe Multimedia (1999a).

Most contemporary surveys contain questions about motivations
to get access to the Internet or to refuse such a connection. The reasons
are close to the motivations for accepting or refusing computers. In
the year 2000, a U.S. National Telecommunications and Information
Administration (NTIA) survey showed that representatives of house-
holds who had a computer or WebTV but never accessed the Internet
gave the following reasons as most important: "don't want" (31%),
"too expensive" (17%), "can use it elsewhere" (10%) and "no time"
(9%). Two years later, the Pew Internet and American Life Project
found a list of reasons for not being online among the 42% of American
nonusers that is shown in Table 3.1.

When we take a close look at the reasons supplied in Figure 3.1 and
Table 3.1, we are able to summarize them as the following five basic
motives:

1. No need or significant usage opportunities

2. No time or liking

3. Rejection of the medium

4. Lack of money

5. Lack of skills

Table 3.1   Reasons for Not Using the Internet, Percentages of Nonusers (United States, 2002)

	Major Reason	*Minor Reason*	*Not a Reason*
I don't want it	52	16	26
I don't need it	52	19	24
I'm worried about online pornography, credit card theft, and fraud	43	14	37
It's too expensive	30	18	42
I don't have time to use the Internet	29	17	49
The Internet is too complicated and hard to understand	27	19	43
Don't have a computer	11	n.a.	n.a.

Source: Lenhart et al. (2003).

Note: n.a. indicates not applicable. N = 910 for nonusers who have never been online. Margin of error is ±3.5% at 95% confidence.

Only the last two and the fourth are the motives of have-nots. The first three are mainly motives of people who do not want the new technology. The reasons that explain these motives make sense. In many jobs, computers and Internet connections are not required (yet). People who have left school some time ago and have no school-going children themselves do not need a computer for education. For information, communication, and entertainment they still have other options (such as radio and television, the telephone, print media, and traditional games and sports). It is no surprise that among the people saying they do not need or want the new media are a relatively large number of elderly, retired, and unemployed people; housewives; manual laborers; people from rural areas; and people with low education in general (ARD/ZDF-Arbeitsgruppe Multimedia, 1999a; Lenhart et al., 2003). The reason "no time or liking" is more complicated. Here we do not only find the categories just mentioned but also many "haves" with busy jobs or other activities but no need to use computers themselves, as well as parents with young children. Some of these people simply hate computers; others have pressing interests that do not include computers.

A number of special motives are rejections of computers and Internet access for social, moral, and safety reasons. They are the clearest indication that one should not always look first to the defects of potential users when motivational access is lacking. About 5 years ago, many potential German computer users thought that using this
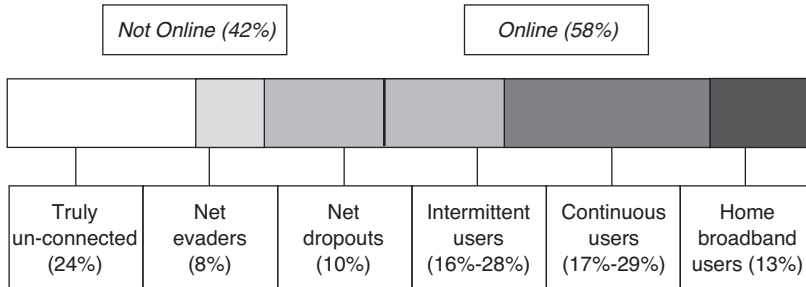
medium caused health problems (such as repetitive strain injury and computer or Internet addiction) and that it would be detrimental to social contacts. This opinion may now have diminished, but the problems with objectionable activities on the Internet may have increased. For 43% of American nonusers, worries about pornography, child abuse, credit card theft, and fraud on the Internet were major reasons to decline access in the year 2002. Women, parents, Americans more than 30 years old, and those with less education were the groups most likely to report concern over online content (Lenhart et al., 2003, p. 10).

Lack of money and operating skills are still very important reasons for nonusers. Thirty percent of American nonusers say that the cost of using the Internet is a major reason to refuse access, and for 18%, it is a minor reason. Twenty-nine percent agree that the complexity of Internet use is a major reason, and 19% say it is a minor reason to decline access. Among this group, people with low income and low education, women, and African Americans are dominant (Lenhart et al., 2003, p. 11).

A conspicuous result of several American and European surveys among Internet users and nonusers, reported between 1999 and 2003, is that about half of current nonusers said that they would refuse to go online in the near future. In the Pew Internet and American Life Survey of 2002, it appeared that 56% of the total 42% of American nonusers declared they would not go online (Lenhart et al., 2003, p. 16). This is 23% of the population of the United States. The categories that score above the average of 56% are females in general (61%, compared to 49% for males), seniors (62% between the ages of 50 and 64 years, and 79% for ages 65 and older), non-Hispanic Whites (62%), people with less than a high school education (70%), retired persons (76%), and people with disabilities (65%). This means that many retired, disabled, and low-educated people refuse access. The fact that a lot of (non-Hispanic) Whites also turn down access—62%, compared to only 39% of African Americans offline and 38% of Hispanics offline—testifies to the fact that this is not only a matter of deprivation but also of lack of interest.

❖ INTERMITTENT USERS, DROPOUTS, EVADERS, AND THE TRULY UNCONNECTED

One of the biggest mistakes in digital divide research is the assumption that the users of digital technology are either in or out, included or excluded. In analyzing nonusers, it soon becomes evident that many

Figure 3.2   Spectrum of Internet Access in the United States (2002)

Not Online (42%)			Online (58%)		
Truly un-connected (24%)	Net evaders (8%)	Net dropouts (10%)	Intermittent users (16%-28%)	Continuous users (17%-29%)	Home broadband users (13%)

Source: Adapted from Lenhart et al. (2003).

of them are sometimes with computers and sometimes without them and that they are occasionally connected and occasionally disconnected. Rightfully so, the Pew research team has called their 2003 survey report about nonusers *The Ever-Shifting Internet Population* (Lenhart et al., 2003)*.* Another misconception is to think that nonusers are loners. In fact, many of them use computers and the Internet via others, that is family, friends, or other sources. They refuse or cannot afford to be connected themselves, but they take advantage of the resources of others.

This does not mean that the problem of the digital divide should be downplayed. It implies that it has to be seen in a dynamic perspective. Many people assumed to be included are in fact nonusers, and many nonusers benefit from a technology they formally do not access themselves. The best way to portray the dynamic perspective required is to picture it as a *spectrum of access,* ranging from those with full access using the best available technology in a mass market in the developed countries (broadband, these days) to the truly unconnected. The truly unconnected are people who have never had any access to computers or the Internet and who often are not even aware of this technology. The Pew research team (Lenhart et al., 2003) has classified such a spectrum for the American population as shown in Figure 3.2.

Reading the 2002 statistics on American users and nonusers, one is able to conclude that there is no reason to trivialize the problem of the digital divide because so many nonusers were once users (dropouts) or refuse to get online (evaders). The same number of people are registered as online but in fact are nonusers from time to time. They are called intermittent users.

The composition of the four categories of present or potential nonusers (intermittent users, dropouts, net evaders, and the truly unconnected) can be described in the following way, using survey research data from the Pew Internet and American Life Project (Lenhart et al., 2003), the NTIA (2000), and the longitudinal 1995-2000 surveys reported by Katz and Rice (2002). Unfortunately they offer American data only, but their advantage is the amount of detail they offer for analysis.

Intermittent Users

Between 27% and 44% of American Internet users in 2002 said that they had gone offline for extended periods in the past (Lenhart et al., 2003, p. 19). The most important reasons these intermittent users gave were technical problems with a broken computer or a failing Internet connection (18%). The next most important problems were moving to another place or no longer having access to the place where they used to have access; for example, a school or a job (13%), and lack of time (12%). Finally, the whole range of reasons described earlier for nonusage in general was given (Lenhart et al., 2003, p. 23): concern about online crime, privacy, and children's safety (12%); do not need it (7%); do not like it (7%); too hard to use (4%); and too expensive (3%). Intermittent users are disproportionately young, single, students, minorities, part-time workers, novice Internet users, with a low income and low level of education (Lenhart et al., 2003, p. 23). The common denominator seems to be an insecure and mobile position in society.

Dropouts

Dropouts are people who have more or less permanently lost connection to the Internet, voluntarily or not. The number of dropouts is large in every survey among American users. It centers around 10% each time. According to Katz and Rice (2002, p. 68) approximately one fifth of all people who have ever used the Internet are or have dropped out at some time. These researchers summarize the results of four surveys between 1995 and 2000 in five main reasons to stop using the Internet: all kinds of physical access problems (22.9%), cost (15.7%), too hard or complex to use (14.9%), not interesting (12.2%), and time (7.5) (Katz & Rice, 2002, pp. 72, 75). Net dropouts tend to be single, young people less than 40 years old, parents with a lack of time, minorities

(African American), novice Internet users, and people with low levels of education and low incomes (Katz & Rice, 2002, pp. 76-78; Lenhart et al., 2003, p. 21).

In additional analyses, the Pew research team and Katz and Rice discovered a number of interesting differences between dropouts and current users. Dropouts are aware of computers and the Internet and have learned to use them via family or friends, not by themselves (Katz & Rice, 2002, p. 79). However, dropouts also say that they have hardly any people they can turn to for support when they need help (Lenhart et al., 2002, p. 22). Compared to users, they feel they have less control over their lives and they have a more negative outlook on society. These are clear indications of motivational problems. Two thirds say they will return to the Internet someday (Lenhart et al., 2003, p. 19)—primarily people with temporary physical access problems—but one third may have disconnected for ever.

Net Evaders

The most explicit motivational problems appear among the so-called net evaders. Most of them belong to the "haves," as they live in households with Internet connections, and many of them even belong to the social elite. Twenty-eight percent of net evaders have used the Internet in the past (Lenhart et al., 2003, p. 20). At least a part of this group lets other household members or employees search for information on the Internet or send and receive e-mail on their behalf. Others are proud of never using the Internet, or they state lack of time or interest as the most important seasons. The Pew research team reached the conclusion that their decision not to use the Internet was "a distinct lifestyle choice" (Lenhart et al., 2003, p. 20).

Who are these people? They appear to be more likely to be men than women, young than elderly, White than African American, rural than urban, rich than poor, and highly educated than less educated (Lenhart et al., 2003, p. 20). With the exception of the rural community type, this is the exact opposite of all other average nonusers! It appears to be a luxury problem, if it is a problem at all. However, if we dig somewhat deeper, we may observe that a large part of this group consists of parents who leave the use of the net to their children, never learning to use it themselves. Then there is the top management of organizations who order their subordinates to use the computer daily but never use it themselves. Net evasion may also be a matter of cognitive dissonance and an easy escape from embarrassment.

The Truly Unconnected

The final group to describe is the truly unconnected. In the United States, this was 24% of the population in 2002. In most other developed countries, and all developing countries, this share of the population is much bigger, as may be seen in the following chapters. This group has never used the Internet before and does not live in households with a connection. This goes for 69% of American nonusers in 2002. A large percentage of this group (31%) is composed of people who say that they know no or very few people who go online. The first distinguishing mark of the truly unconnected is their social isolation. They lack the social networks that would encourage them to go online. They have a low level of education (74% have only high school or less). They also have low incomes (43% have incomes of below $30,000 a year). They tend to be older than other nonusers (62% are more than 50 years old), and there is a clear majority of women (59%). These data are all from the same 2002 Pew survey (Lenhart et al., 2003, pp. 25-26).

These last percentages depict a part of the population that really is deprived. However, the reasons supplied for not being connected reveal a difficult-to-unravel mixture of have-not and want-not causes (see Lenhart et al., 2003, pp. 25-26). Some 54% of the unconnected say they do not need the Internet, and 53% declare they do not want it either. More than half (55%) do not think they are missing anything by not being online. They tend to have a more negative view of the Internet, and they are more worried about its consequences than other nonusers—and much more than users. However, "only" 33% find the Internet too expensive and 27% too complicated or hard to use. Instead, the Internet's lack of perceived usefulness seems to be more important for this group (Katz & Rice, 2002, pp. 91-94). "The Internet does not have appeal for low-income and low-education people" (p. 93). I discuss this statement (as far as I think it is true) in chapters 5 and 6. Here I want to raise some doubts about it, as the want-not reasons might also be a form of cognitive dissonance, "sour grapes" reasoning, and plain ignorance of the Internet.

❖ REASONS TO (NOT) GET ACCESS

Resources and Motivation

As with all other kinds of access, motivational access is primarily explained by particular resources people have or lack. The distribution

of these resources depends on the positional categories people occupy and the personal categories to which they belong. These are central statements of the model described in the previous chapter. In this section, I make my first arguments for these statements, starting with motivational access.

Resources are available means that are used as a source of supply or support in accomplishing particular aims. In this case, the aims concern the decision to acquire other means first: particular digital means. Who reaches this decision?

It is obvious that those with sufficient *material* resources will have less difficulty in reaching the decision. Purchasing and maintaining a PC and an Internet connection is considered too expensive by many nonusers. People from the lowest income category in the United States (those who earn less than $30,000 per year) comprised 18% of American Internet users and 41% of nonusers in 2002 (Lenhart et al., 2003, p. 6). Having other property also is important, according to many surveys. People having many other media at their disposal, such as televisions, newspapers, mobile phones, PDAs, and audio or video equipment, are more likely to have computers and Internet connections as well. A third type of material resource required is the availability of physical access to computers and networks. This appears to be a problem in rural or remote areas and in poor neighborhoods with few public access facilities. Moreover, the most important reason for intermittent use of and dropout from the Internet (observed earlier) was a broken computer or failing connection.

An equally important resource is *time.* This factor is underestimated in most digital divide research. It is mentioned as a major reason by 29% of nonusers (see Table 3.1). For intermittent users, dropouts, and evaders, this reason is relatively more important than for the truly unconnected. For people with busy jobs, who do not regularly use computers, or who are parents of small children, this is even likely to be the most important resource that is scarce in relationship to computer use. Conversely, for adolescents, seniors, and the unemployed, a surplus of time is a prime impetus to start experimenting with computer and Internet use.

Another underrated factor is the *social* resources of potential users. This factor is not mentioned as a reason for nonusage by the users themselves, but it might be one of the most important background explanations for (the lack of) motivation. People become aware of the importance and applications of the new media via social contacts with

family, friends, colleagues, teachers, neighbors and acquaintances. With them, they are able to observe the operation of computers and the Internet in practice. As we will see in chapter 5, these social contacts also are the agents who first learn and advise other users in using computers; this is far more common than users gaining computer knowledge in formal education or computer classes. On the other hand, the truly unconnected described earlier often are socially isolated, and they know very few people who work with computers or have access to the Internet. Thus having a large social network consisting of relatively many computer and Internet users is vital if a user is to cross the motivational access barrier. Several digital divide investigators have paid attention to the importance of so-called social capital for access (Katz & Rice, 2002; Lenhart et al., 2003; Warschauer, 2003b). However, the effect of social networks is not as straightforward and unconditional as these observations suggest. The Pew research team discovered that people who live in dense social networks and who belong to community groups and social clubs based on face-to-face communications are also less likely to go online (Lenhart et al., 2003, p. 41). Their physical proximity appears to satisfy their needs. The importance of social resources for access seems to be most important for people who combine diffuse and long-distance networking with proximate contacts. Both are helpful in obtaining the awareness and experience of computer use.

So far, I have not discussed the most important reasons supplied by non-users: "I don't want it," "I don't need it," and a rejection of the medium in general. These reasons may be related to a lack of particular mental and cultural resources, although they may be completely rational, as I argue later. *Mental* resources are of both a cognitive and an emotional kind. *Cognitive* resources are basic knowledge of computers and the Internet and the ability to use them. Many nonusers do not appear to be well informed about the actual characteristics of computers and the Internet (Katz & Rice, 2002; Lenhart et al., 2003). It goes without saying that they have no or very few skills to operate computers. It is no surprise that 27% of nonusers call the Internet too complicated and hard to understand and that they say this is a major reason for not using it.

Emotional resources are self-confidence and a particular self-image based in (not) using computers and the Internet. In a Dutch survey executed in 1996, many people who were not able to command a PC experienced this lack of skill as a personal shortcoming: 26% of the Dutch who were less than 50 years old and 40% of those older than 50

(Doets & Huisman, 1997). These kinds of self-concepts are rarely revealed by respondents in quantitative survey research. To unearth this type of data, one has to conduct qualitative research, as Laura Stanley did among San Diego non–computer users and new computer users in 2001 (Stanley, 2001). She discovered that a perceived ineptitude and a lack of self-confidence in using computers were important barriers for access. "Three out of four new computer users retrospectively described how the thought of learning computers provoked feelings of anxiety sufficient to all but abandon the idea [to acquire computer literacy]" (Stanley, 2001, p. 12). Here the denial of any necessity for access (don't want it, don't need it) might be a case of cognitive dissonance, an attempt to solve an attitude inconsistency.

However, on other occasions, the rejection of the new media is a consistent attitude. Here the actual answer is, "I don't like it." The negative characteristics of the new media are pronounced. They do not fit the *cultural* resources of many potential computer and Internet users. These are matters of lifestyle, interests, hobbies, affinities, and status marks. They are the most important background to the conspicuous role of age, gender, and ethnic or class minority culture in the adoption of digital technology (to be discussed). Having access and using digital technology are part of the lifestyle of most contemporary young people. These things belong to the status marks of the young. Conversely, access and use do not fit the favorite cultural resources of many older people. The same goes for (older) women.

Stanley (2001) has demonstrated that particular minority cultures, such as Latino and African American cultures in poor, working class neighborhoods, have more affinity with manual labor and face-to-face communication than with intellectual labor and computer-mediated communication. Working class males, especially those with a Hispanic or African American background, tend to think that computers are for women and girls. In the San Diego study, a 37-year-old Mexican American bus driver explained his view: "When I was in high school, my friends would tell me that computers and typing are for girls and ask me why I would want to do that. I shouldn't have listened to them. Even though that was a long time ago, it kinda stuck in my mind" (Stanley, 2001, p. 18).

In a qualitative interview study conducted in Austin in 1999, several poor community boys brought up that their friends did not find computers or the Internet socially acceptable (i.e., "cool"). Computer classes were held to be "boring," too much focused on "keyboarding,"

and "something girls do" (Rojas, Straubhaar, Rowchowdhury, & Okur, 2004, pp. 121-122).

All social classes and cultural groups reject computers and the Internet in general when their use contradicts the moral and cultural values of particular class or group members, parents in particular. This is often the case when the superabundance of pornography, racism, libel, and slander on the Internet and the violence in so many computer games is considered.

Positional Categories and Motivation

Now we are ready for an explanation of the distribution of these resources by both positional and personal relational categories. As a large part of motivational access is psychologically determined, personal categories have a relatively big impact here. However, particular positions on the labor market, in education, and in households also are primary and evident reasons for motivation to acquire access. Having a particular kind of job or wanting to find one, as well as attending a school requiring computer work and Internet access, are the most important reasons behind such motives. The next most important reason is having a family with school-going children. There is also the general reason of belonging to a nation in which computers and Internet connections are widely distributed and accepted and where they are becoming a necessary means by which to participate in society.

These positions determine the possession of the material and social resources described first. They affect the income and the motivation required for the purchase of computer hardware and software. They also create the social relationships with colleagues; other students; and children, parents, or partners needed for getting interested in the new technology and learning how to use it. Some of these positions also shape the time resources that are necessary for sufficient motivation. Busy jobs or training programs (without computers) and a busy family life with small children cause time resources to be scarce.

Even the distributions of the mental (cognitive) and cultural resources described here are partly a matter of particular labor, educational, household, and ethnic majority or minority positions. Computer knowledge, skills, and lifestyles are correlated with particular jobs, schools, family lives, nations as a whole, and ethnic cultures in parts of nations. The following chapters supply the data for these correlations.

Personal Categories and Motivation

With regard to the relationship between personal categories and motivational access, most studies and data highlight age, gender, and race or ethnicity. However, psychological and physical categories, such as personality, intelligence (cognitive, emotional, and social) and health, might be just as important, although there are fewer data available. The motivation to gain access is much higher for young people than it is for seniors. It is common knowledge that there is a generation gap in access to and use of digital technology, with elderly people above the age of 65 staying far behind. In general, there is a gap in the developed countries between people older than 35 to 40 years who have had no training with computers at school and who have not have the opportunity to catch up in a job that requires computer experience and those less than 35 years old who were trained at schools or in jobs.

The interesting motivational phenomenon in the relationship between the old and young age categories is that seniors and parents easily leave the appropriation and skills for use of digital technology to young people in general and to their (grand) children in particular. Young people take the initiative on many occasions in digital daily life. The same happens in gender relationships, a classic occurrence in the appropriation of technology by both sexes (Cooper & Weaver, 2003). Potential female users simply leave the attempt to get access or to finish a job perceived to be difficult to male users. Here we may observe a combination with age, labor, and education. Elderly women, women with low education or without jobs, and housewives appear to be especially less motivated to start using computers and the Internet.

If we look at the large differences of access to computers and the Internet between different racial and ethnic groups in the United States, with Asians taking the lead far above African Americans or Hispanics and even passing Anglo-Americans, we must conclude that these differences have a basis in motivation, ambition, and particular cultural propensities and preferences. Among some ethnic minorities, preferences collide with the predominant English and Anglo-Saxon nature of computer or Internet language and culture. This theme of ethnic relations is explored in chapter 6.

Personality is an underrated categorical difference in regard to motivational access. I have already mentioned the role of self-confidence and of a particular self-image (seeing oneself as someone who should or should not use computers). The self-confident will always take the

lead above those who are not self-confident in the appropriation of technology. The same goes for those who see themselves as working with computers and those who cannot seen themselves this way (Stanley, 2001). Self-confidence in using computers also is called computer self-efficacy (Brosnan, 1998).

Several of the so-called Big Five personality dimensions (agreeableness, conscientiousness, neuroticism, extraversion, and openness) are known to be related to computer use, attitude, and stress (Hudiburg, 1999). Neuroticism aggravates problems experienced in approaching and using computers and extraversion alleviates them (Hudiburg, 1999). Finn and Korukonda (2004) found that agreeableness (willingness to submit) and conscientiousness mediated positive feelings about computer use. The same was observed for extraversion and openness to new experiences. In considering a relational view on the inequality of personality pairs, it would be interesting to know whether the opposite positions on the five personality dimensions influence each other in the appropriation of technology and computer access—for instance, whether extraverted, open, agreeable, conscientious, and nonneurotic people would dominate their counterparts in accessing technology. Unfortunately, there are no data with which to answer this question.

Among the less self-confident, open, agreeable, and conscientious and among the more neurotic, the phenomenon of *computer anxiety* appears (Brosnan, 1998; Chua, Chen, & Wong, 1999; Fariña, Arce, Sobral, & Carames, 1991; Maurer, 1994; Rockwell & Singleton, 2002; Rosen & Maguire, 1990). This is a feeling of discomfort, stress, or fear experienced when confronting computers. Those with high levels of computer anxiety are also less likely to use the Internet (Rockwell & Singleton, 2002).

Often, computer anxiety is not only a precursor of computer experience but also a consequence. *Computer frustration* is a matter of bad experiences with computers failing to do what people want them to do (Bessière et al., 2004). Other responses to this frustration can be aggression toward the machines used; regression (socially immature behavior); fixation on old, ineffective computer input; withdrawal; and resignation (Bessière et al., 2004, pp. 95-96).

Computer anxiety is often supposed to be a general type of *technophobia,* a fear of technology in general and a distrust in its beneficial effects. I think computer anxiety is a particular emotional consequence of a (perceived) personal inability to work with digital hardware and software, but technophobia is a particular attitude and opinion

produced by a view of humanity, its artifacts, and the world. Technophobia as a rejection of the world of computers was very widespread at the beginning of the digital revolution in the 1980s and the first half of the 1990s. At the turn of the century, after the widespread diffusion of computers and the Internet hype, it started to lessen and turn into a more focused criticism of the technology, emphasizing problems such as excessive use of computers and the objectionable content of or lack of security on the Internet. However, computer anxiety remains as an access problem for elderly people, comparatively more women than men, and people with low education and disabilities in particular. The problem is surmountable for most potential users (Stanley, 2001), but it remains a real barrier for some of them.

A lack of all kinds of intelligence also is an undervalued motivational access problem. Actually, it is rather strange that this problem is undervalued, as it is common knowledge that those with technical affinity and skill are always asked by the lesser skilled to answer their questions and solve their problems. Technical skill is a case of cognitive intelligence. It increases the motivation to use computers and the Internet. The technically skilled always take the lead in the appropriation of a new technology. Emotional intelligence is important for a self-controlled and balanced use of computers and computer-mediated communication in comparison to physical human sources of information and communication. Social intelligence is required to combine the purposes and workings of computer-mediated communication and face-to-face communication in a fruitful way. However, in this case, people with both high and low emotional and social intelligence might be motivated more (than people with average intelligence) to get access to computers and networks. Those with high intelligence take advantage of the emotional and social benefits of computer use and evade the disadvantages, such as social isolation and addiction. Those with low emotional and social intelligence become heavy users as a means of social escape and immersion into computer interfaces (these are the so-called geeks, or nerds).

A last personal category to be mentioned is health. With the right adaptive technologies, disabled persons could gain great advantages from access to computers and the Internet. In fact, they have much less access than people without disabilities, and they have a lower motivation. Only 38% of American disabled persons used the Internet in 2002, and 65% of disabled nonusers in that year declared that they did not want to go online in the future (Lenhart et al., 2003, pp. 30, 17).

❖ CONCLUSIONS

In this chapter, I have argued that motivation is the initial condition of the whole process of new media access and appropriation of the technology concerned. Motivation partly explains why subsequent kinds of access are reached—or not. It influences the decisions to purchase a computer and network connection, to learn the requisite skills, and to use the interesting applications. Some people are not sufficiently motivated to attempt to obtain access. These want-nots consist of a diverse collection of intermittent users, dropouts, and net evaders. Currently, they comprise about half of the people having no access in the developed countries. The other half are the "truly unconnected," who have no choice about computer use or few opportunities to choose. The dividing line between these two groups is not sharp, and it is ever shifting.

The reasons supplied in surveys and interviews for this lack of motivation are both emotional and rational. They include no need for use or for significant usage opportunities, no time or liking, rejection of the medium, lack of money, and lack of skills. The people with a lack of motivation to gain access to computers and networks should not be accused of being backward. Instead, the finger should be pointed at the current flaws of the technology concerned: lack of user friendliness, usefulness, attractiveness, affordability, and safety. The work of Donald Norman (1988 and 1999 in particular) supplies plenty of evidence.

I have tried to explain the level of motivational access in regard to, first of all, the distributions of a large number of resources. Temporal, mental, material, social, and cultural resources may all be responsible for this motivation. In their turn, these distributions were explained by positional and personal categories. It is no surprise that personal categories appear to be dominant. This goes not only for age, sex, and race but also for the deeper mental categories of personality and intelligence of all kinds. These are responsible for the important phenomena of computer anxiety and technophobia.

The analysis in this chapter has shown that motivational access problems are complicated. In the final chapter, I argue that policy perspectives range from attempts to improve the technologies concerned and wage information campaigns to personality guidance and computer didactics.