Chapter 2

Personality and the Internet

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The Internet is a modern communication technology which is able to create a comprehensive environment. Here, surfers may carry out a variety of social activities, for example, joining a support group or interacting with friends or with people chosen at random. Although millions of people around the world communicate with one another every day, surfing is an individual experience and, therefore, any attempt to understand behavior on the net must involve an examination of the personality of the surfer.

Our personality is the source of our emotions, cognition, and behavior. Its structure has been compared to that of an enormous iceberg, of which only the tip is visible above the water level and the rest of its huge mass is hidden beneath. In a similar way, we know and understand only a small part of our personality; most of it remains unrevealed. Interaction over the Internet, with its anonymity, high degree of control, and the ability to find similar others, creates a unique protective environment that encourages people to express themselves more freely than they would in a regular interaction. This may be especially relevant to people who are socially inhibited and so find difficulty in expressing themselves. They may feel that it is only via the Internet that they can communicate effectively. In some cases, this may lead them to give their life in cyberspace precedence over their real life. Thus, the secure Internet environment may have a direct impact on their personality, and it is on this that our chapter will focus.

This chapter is divided into four main parts. The first focuses on the issue of interaction between personality and Internet use. The second will discuss the expression of identity over the Internet. In the third part, we move on to discuss two negative social phenomena that are associated with Internet use—loneliness and addiction; and the closing section focuses on new directions in which the Internet can be utilized as a tool for the improvement of human well-being.

The interaction between personality and Internet use

People's behavior and choices on the net are, to a great extent, governed by their individual characteristics. Research into this interaction between personality and net choices is in its infancy, but it would seem that many personality theories are pertinent to any discussion of this topic. In addition, any study of this kind must include scrutiny of the unique self-expression which bursts forth all over cyberspace, and an investigation of the different components contained in the Internet environment that encourage people to express themselves with a freedom that does not exist in their normal (earthbound) connections.

Personality and differential behavior on the net

Amichai–Hamburger (2002) suggests that the Internet is an interactive medium that does not fulfill its potential. This, he believes, is a result of the lack of communication, exchange, or sharing of knowledge between Internet designers and psychologists. Internet designers perceive surfers as a homogeneous group and take no account of personality differences, while psychologists tend to see the Internet as a single entity, ignoring its richness and variety of services. As a result, studies of the Internet tend to deal in stereotypes and the Internet develops in ways that ignore the individual needs of the user. This is particularly regrettable since the Internet's unique interactive abilities mean that services may be tailored to fit the personality type of the individual surfer. Amichai–Hamburger argued that research should focus on the interaction between the different personalities of the net users and the diverse components of Internet technology. An important result of this line of research would be a bank of knowledge that would facilitate the design of a more user-friendly Internet.

There are several personality theories relevant to the Internet, among them are need for closure (Amichai–Hamburger *et al.*, 2004*a*), need for cognition (Amichai–Hamburger *et al.*, 2004*b*), and risk taking, sensation seeking, attachment, and locus of control (Amichai–Hamburger, 2002). The personality theory considered by many to have the most relevance to the social aspects of the Internet is the extroversion and neuroticism personality theory (Eysenck & Eysenck, 1975). The main reason for this is its focus on social aspects and its connection to loneliness (Hamburger & Ben–Artzi, 2000).

The personality type comparisons, which would seem most relevant to the study of Internet use, are those of the extrovert vs. introvert and neurotic vs. non-neurotic. The extrovert is a friendly person who seeks company, desires

excitement, takes risks, and acts on impulse, whereas the introvert is a quiet, reflective person who prefers his or her own company, does not enjoy large social events, does not crave excitement, and may be seen by some as distant and remote. The neurotic person is an anxious individual who is overly emotional and reacts too strongly to all types of stimuli (Eysenck & Eysenck, 1975).

In his personality typology, Jung framed two life orientations: extroversion and introversion (Campbell, 1971; Jung, 1939). Most scholars have considered these personality components to be two extremes of the same continuum (see for example, Eysenck & Eysenck, 1975). Jung himself, however, believed that they coexist simultaneously within the same personality; while one may dominate, the other is also present, although it may be unconscious and undeveloped.

Eysenck and Eysenck's (1975) extroversion and neuroticism personality theory is one of the developments of Jung's extroversion-introversion personality typology. Two models have been suggested to explain the relationship between extroversion and neuroticism and loneliness (Levin & Stokes, 1986; Stokes, 1985; Watson & Clark, 1984). The social network model states that the relationship between personality variables and loneliness is mediated by social network variables (Stokes, 1985). Specifically, the model suggests that individual characteristics may reduce one's motivation to initiate social interactions or may affect one's behavior during social contacts, resulting in unsuccessful interactions. The cognitive bias model emphasizes interpersonal cognitive processes as being responsible for feelings of loneliness. According to this model, some people tend to hold a negative view of themselves and the world and, as a result, perceive themselves as depressed, worthless, and lonely, regardless of their actual social network (Watson & Clark, 1984).

In a series of studies, Levin and Stokes (1986) provide evidence that the social network model explains the loneliness experienced by introverts, whereas the cognitive bias model explains the loneliness of neurotics. Stokes (1985) found that only the correlation between extroversion and loneliness, and not that between neuroticism and loneliness, is mediated by the size of the individual's social network. People high in neuroticism seem to be lonely not because of their difficulty in forming and maintaining social relationships, but rather as a manifestation of their negative affectivity, that is, their general negative bias.

These continua of extroversion—introversion, neurotic—non-neurotic are particularly relevant to Internet use. This is because the user is anonymous, has no physical proximity or contact with the person with whom he/she interacts, and has complete control over the interaction, so that he/she feels

him/herself to be in a protected environment (Hamburger & Ben–Artzi, 2000). These factors may assist introverted and neurotic individuals to express themselves more freely on the net than they feel able to in an offline relationship. For women, introversion and neuroticism were found to be positively related to the use of Internet social sites (Hamburger & Ben–Artzi, 2000). These results are particularly interesting because they confirm earlier studies showing that women have higher self-awareness and are more likely to use the social network for support (Leana & Feldman, 1991; Ptacek *et al.*, 1994). It is, however, suggested that, in time, introverted and neurotic males also come to realize that the Internet social services may answer their social needs, since the protected net environment allows them to express themselves freely. This preference for using Internet social services is not likely to be found among male and female extroverts and non-neurotic net users, since they do not suffer from inhibitions in their social interactions.

Maldonado *et al.* (2001) evaluated computer-mediated messages and found that introverted subjects send messages with an extroverted tone. Their messages contained more information than those sent by extroverted subjects. It seems that on the net introverts do not behave in accordance with their usual behavior pattern, but due to the secure environment conduct themselves in ways associated with extroverts in offline relationships (see also Amichai–Hamburger *et al.*, 2002). It is interesting to note that this uncharacteristic online behavior by introverts actually accords with the teachings of Jung. Jung believed that human beings are made up of opposing sets of characteristics; thus, an extroverted person will also be an unexpressed introvert, the introversion lying mainly in the unconscious. The opposite is true for the introvert. Well- being is the result of a successful creation of a balance between these opposing forces. The Internet may be able to assist in the construction of such an equilibrium, by allowing individuals to express the undeveloped part of their personalities. Thus, introverts may express their extroversion in online relationships.

A different opinion was given by Kraut *et al.* (2002) who pointed out that Internet users who are extroverts, with many friends in their offline relationships, showed a higher involvement in their real communities as compared with introverts who are also net users. In addition, it was found that, although both extroverts and introverts benefit from their increased Internet use by enlarging their social circles, introverts report a higher loneliness level. They explained their results by 'The rich get richer' phenomenon. Namely, people who have many friends anyway make more friends on the net, whereas people who suffer from social problems are those who are likely to gain less from Internet interaction. However, most scholars hold that the Internet creates

opportunities for the 'poor to get rich'. That is, the protected environment created by the Internet produces a situation in which people who cannot express themselves through the more traditional channels of communication find themselves able to do so on the net (Hamburger & Ben–Artzi, 2000; Maldonado *et al.*, 2001; McKenna *et al.*, 2002).

New directions on personality–Internet interaction

This chapter seeks to extend our understanding of the Internet-personality interaction. To do so, it is necessary to examine other relevant personality theories.

Need for closure

People who have a high need for closure are motivated to avoid uncertainties. They tend to 'freeze' the epistemic process (Kruglanski & Freund, 1983) and to reach conclusions speedily. They often get locked in conceptions and ignore contradicting information. People with a low need for closure are predisposed to 'unfreeze' many alternative hypotheses and to test as many implications of their own hypothesis as possible. It was found that preference of websites was in accordance with our predictions when there was no time pressure (Amichai–Hamburger *et al.*, 2004*a*). When it comes to the social aspect of the Internet, it seems likely that people with a low need for closure will be willing to explore their identity on the net and are open to new relationships there, while people with a high need for closure will be more inhibited about exploring their identity or starting new Internet relationships.

Locus of control

People with an external locus of control believe that life events are the result of external factors, like chance or luck. People with an internal locus of control believe in their own ability to control their life events (Rotter, 1966, 1982). These personality characteristics may explain the differences between surfers who carefully control their time on the net as opposed to other surfers who 'disappear' into the net's social/romantic relationships with little thought of time. It might also explain the differences between people's willingness or otherwise to give out personal information on the net. Individuals with an external locus of control will not have difficulty in releasing information about themselves, whereas for others, with an internal locus of control, the giving out of information will lead to feelings of loss of control.

Attachment

The signficance of attachment for infants was first studied by Bowlby (1958). Ainsworth *et al.* (1978) showed the importance of attachment beyond infancy

and formulated the attachment personality typology. Hazan and Shaver (1987) examined attachment theory in terms of the adult love relationship. They suggested three types of personalities: secure, avoidant, and anxious–ambivalent. The secure style is defined by confidence in the availability of attachment figures in times of need and by comfort with closeness and interdependence. It was found to be related to happy, intimate, and friendly love relationships. The avoidant style is characterized by insecurity concerning others' intentions and preference for emotional distance. It was also found to be associated with fear of intimacy and difficulty in depending on partners. The anxious–ambivalent style is also defined by insecurity concerning others' responses and with a strong desire for intimacy. It is also associated with passionate love and with a strong fear of rejection.

A different way to understand the attachment theory is that rather than assessing attachment types, attachment can be seen as two continua of the personality dimension: avoidance and anxiety. Every individual can be located at a point on these two dimensions (Brennan *et al.*, 1998). The attachment theory may well be relevant in explaining the seeming contradiction between the very shallow relationships and the deep serious relationships that develop on the net. It seems that those surfers who are high on the avoidant continuum have a tendency towards forming relationships with no commitment on either side. This is because they do not want to rely on others and are likely to experience tension should the relationship show signs of becoming serious. However, the surfer who would be placed in a high position on the 'anxious' continuum has a need for stable relationships and will need to spend time 'getting to know' their potential friend. They are the ones who will most probably heighten the level of intimacy between themselves and their Internet partners, and are also those who have a greater tendency to become addicted to their net relationships.

Sensation seeking and risk taking

These are two highly related personality dimensions. Sensation seeking focuses on the need for new and varied experiences through disinherited behavior. These include dangerous activities, a non-conventional lifestyle, and a rejection of monotony (Zuckerman, 1971). Risk taking is a personality dimension; people vary as to the degree to which they are ready to take an action that involves a significant degree of risk (Levenson, 1990). These personality theories appear to be particularly relevant when assessing user behavior on the Internet. People who are high in sensation seeking and risk taking will be more open to new experiences on the net. They will, therefore, be more likely to use the Internet to explore different aspects of their personality and may

also be interested in exploring the extremes of the net. Should their net relationship develop, it is this type of person who is most likely to take the initiative and suggest a meeting. People who are low on sensation seeking and risk taking will conversely behave more cautiously on the net and will be less open to identity experiments. Although their relationships in cyberspace will, in all probability, develop faster than those in the real world, they will still follow a prudent, steady course.

The personality theories described above represent an example of an effective method to explore ways in which personality and Internet interaction should make progress. Other personality theories may also be found to have relevance. One concept which is pivotal to any discussion of personality is that of the self. This refers to our subjective perception, how we perceive ourselves. One of the most important contributors to the understanding of the self is the psychologist Carl Rogers.

The Rogerian self-concept and the Internet

Rogers was one of the leaders of the Human Potential Movement, which saw itself as an alternative power to psychoanalysis and behaviorism. Rogers (1980) argued that, in modern life, people had deserted their own innate personalities and replaced them with a set of characteristics they believed would guarantee them the love of others. However, whatever façade they adopted and as hard as they tried to please others, their actions were felt to be unsatisfactory by their recipients who clearly perceived their needs differently. Rogers explains it thus: 'Hence, to a degree probably unknown before, modern man experiences his loneliness, his cut-off-ness, his isolation both from his own deeper being and from others' (Rogers, 1980, pp. 166–7).

Rogers suggested that healthy people live in congruence between themselves and their experience; they are open to experiences in life, and lack the defensiveness that creates tension between the self and the experience. He maintains that people achieve this state when they are brought up by parents who gave them unconditional love that enabled them to experience the world through their own eyes. Conversely, unhealthy people received conditional love that created a barrier, causing them to be unable to express their real self out of fear of losing the affection of their caregivers. Pathology is a disturbed relationship between the self-concept and actual experience.

The structure of the Rogerian personality (1961) contains three different selves:

- The self-concept (the phenomenological self)—the subjective perception of the self. This includes both the parts that are expressed and conscious beliefs about the self, as influenced by culture and education.

- The true self (or the organismic valuing process) represents the real self, for most people as yet unfulfilled. It is the deepest part of our personality which knows what is good or bad in the individual.
- The ideal self—what the person would like to be. This is not necessarily the same as the true self, since the person can have an ideal self that is totally at odds with that to which he/she should aspire. It is important that the gaps between the ideal self and the true self, the self-concept and the ideal self, and the self-concept and the true self should be as small as possible; should these gaps widen, the psychological well-being of the individual is liable to deteriorate.

Rogers (1980) suggested that the most important component of successful therapeutic outcomes is an environment that promotes the growth of the patient. Three conditions are required to create such a climate:

1 Genuineness, realness, or congruence—the therapist makes himself or herself open to the patient. Therefore, the patient feels that the therapist can be trusted.
2 Unconditional positive regard—whatever the patient says, the therapist accepts positively. In addition, the therapist showes the patient that his/her welfare is a matter of genuine concern.
3 Empathic understanding—listening in a way that gives the therapist entry into the private world of the client so that he/she can understand what is below the awareness level (Rogers, 1980).

Although Rogers stresses that these three conditions are necessary for a climate of growth—which is the case in any significant relationship (therapist–client, father–child, teacher–student)—he emphasizes that these conditions are very rare in our regular lives.

McKenna and Bargh (2000) suggested that four major differences exist between Internet interaction and face-to-face interaction:

1 greater anonymity
2 the diminution of the importance of physical appearance
3 physical distance
4 greater control over the time and pace of interactions.

McKenna *et al.* (2002) believe that the secure protective environment found on the Internet is likely to have a positive effect on net relationships. They argue that the unique qualities of communicating in cyberspace are the reason that people are willing to share self-relevant information. They use the concept 'real me' to refer to a version of the self that someone believes is the truth, but that he/she find difficulty in expressing. They derive their concept from the

'true self' concept used by Rogers (1951) for the feelings of patients after successful therapy, when she/he manages to become more truly her/himself.

McKenna *et al.* (2002) differentiate between people who locate their real me on the Internet (namely, reveal their real self over the net) and those who locate their real me in offline relationships (namely, who prefer to reveal their real self in traditional offline relationships). They suggest that the location of the real me will define where people will have their more significant relationships—online (in cyberspace) or offline (in the real world). When a person locates his/her real me on the Internet, it is expected that he/she will have a more significant relationship over the net than when a person locates his/her real me in offline relationships. In addition, they suggest that these people will strive to move those significant relationships outside the net, so as to make them a 'social reality' (Gollwitzer, 1986).

In a series of three experiments, they demonstrated that people who found it easier to express their true self over the net reported a rapid formation of cyberspace relationships and that those relationships endured over time. They also found that people who are socially anxious and lonely can better express themselves on the Internet than in offline relationships. Social anxiety and loneliness are linked to relationship intimacy by mediation of the location of the self. There is no direct relationship between social anxiety and loneliness to intimacy and closeness. In addition, they found that people strive to move their significant Internet relationships to their non-Internet social life to make it a social reality. More specifically, they found that Internet newsgroup participants reported bringing their Internet friends into everyday life. As many as 63% had spoken on the phone with someone they had contacted over the Internet; 56% exchanged a photograph of themselves; 54% had written and sent a letter through the mail; and 54% had met their Internet friend in real life. Also, they found that people who had created their first impression over the net liked the other partner more when they met face to face as compared to when the beginning of interaction was in real life. According to them, this is proof that a relationship established on the basis of mutual self-disclosure is stronger than one based on physical attractiveness.

Bargh *et al.* (2002) conducted three laboratory experiments to examine the impact of the protected Internet environment on the expression of the self on the net. Experiments 1 and 2 showed faster response times to actual self-characteristics (which participants declared earlier, as one expresses in social interaction) after face-to-face interaction, meaning that the actual self was more accessible after face-to-face interaction. In contrast, after an Internet interaction faster response times occurred to true self-characteristics (which they declared earlier as one's reflecting his/her true self), meaning that the true

self was more activated during the Internet interaction (with no difference between the time interactions). Experiment 3 showed that people who interacted on the net were more successful in representing their true self to their communication partner as compared with people who interacted face to face. The degree of matching between the characteristics people used when they described their real me and the way in which they were described by their partner was found to be high, as compared with the match to their actual self. In addition, a significant correlation was found between liking and the degree of suitability, in the description that the individual gave to ideal close friends when describing his/her communication partner's characteristics.

The rapid feeling of intimacy with the other side should be treated with caution. It is important that people differentiate between what is actually taking place during an Internet relationship and their feelings about that relationship that may well have been induced by the channel through which they are communicating. In addition, Internet communication is especially attractive to people who find difficulty in making friends and, therefore, have strong social needs that are unfulfilled. These people are particularly vulnerable to the possible deception induced by this form of contact.

Amichai–Hamburger *et al.* (2002) attempted to relate the Internet real me concept (see McKenna *et al.*, 2002) to the extroversion and neuroticism personality theory (Eysenck & Eysenck, 1975). Subjects who were regular users of 'chat' completed questionnaires. These revealed that introverted and neurotic people locate their real me on the Internet, while extroverts and non-neurotic people locate their real me through traditional social interaction. It would appear that the social services provided on the Internet, with their anonymity, lack of need to reveal physical appearance, ability to control the degree of information revealed in the interaction, together with the ease with which it is possible to find like-minded people, provide an excellent solution to people who experience great difficulty in forming social contacts due to their introverted neurotic personality. These results are reinforced by the fact that the social anxiety and loneliness variables that McKenna *et al.* (2002) found as relating to the location of the real me on the Internet are highly related to introversion and neuroticism. As Norton *et al.* (1997) reported, there is a positive relationship between social anxiety and neuroticism and a negative one between loneliness and extroversion.

Some further ideas on the real me concept

The concept of the real me enables us to understand the importance of the Internet for certain types of people; for example, those people who find it better to express themselves on the Internet than through the more traditional

channels of communication. This implies that for a significant number of people such as introverts, neurotics, lonely people, and people with social anxiety, the Internet may become a very significant part of their lives and perhaps the only one in which they truly express themselves. It would seem that the perception of the Internet as just some kind of a replacement for the real world is, for these people, inaccurate. The Internet plays a pivotal role in their lives for, as Rogers points out, people who cannot express their 'true self' are prone to serious psychological disorders (Rogers, 1951). However, the Rogerian concept of the 'real self' should be treated with caution. This concept refers to the existence of a self that is largely unknown to its host, while the phenomenon found on the Internet relates more closely to that referred to by Bargh *et al.* (2002) as the 'strangers on the train phenomenon' (Rubin, 1975) (i.e. where people feel safe to tell a stranger their intimate secrets).

It is possible that, when the well-protected Internet environment is utilized by surfers who are sensitive and warm, the resulting interaction will create the optimal conditions as specified by Rogers for the building of a therapeutic environment. However, the general concept that surfers will discover their true self through the Interent should be treated with caution. The true self is unknown to most people and may be revealed through therapy. It is necessary to ask, however, whether behavior on the net is ever a revelation of the real me or simply a sharing of intimate information in what appears to be a safe environment. Nevertheless, given the safe environment of the net and the ease with which it is possible to find similar others, a setting may be created in which individuals do, in fact, strengthen their self-concept and feel at ease to express themselves.

The expression of identity over the Internet

Identity is our uniqueness, the sense of being separate from the environment. A sense of identity stems from consistency over time; it is the ability of the individual to provide a satisfactory answer to the question 'who am I?' (Erikson, 1968). It is during adolescence that our identity is formed, but shaping it is a lifelong process, a life–longitudinal challenge (Mussen *et al.*, 1979). Adolescents who have not achieved a sense of identity at this stage in their development have a lower self-esteem as compared to those who have achieved it (see Campbell *et al.*, 1984).

Eric Erikson (1968) viewed early stages of childhood similarly to Freud but, in addition to focusing on libidinal tension, also emphasized the rational or ego processes involved. As a result, his theory places a greater emphasis on societal and cultural influences. Erikson argued that our personality develops from earliest infancy and continues throughout our lives. His work was found

to be relevant by many modern readers because of its emphasis on the development of the identity. This issue of self-identity has emerged as one of the most consuming topics in modern western society. According to Erikson, the ability to give and receive mature adult love is based on intimacy, the ability to reflect your identity on your partner. To be able to do so, an individual needs a sense of coherent identity. Those who fail to develop a sense of identity are likely to experience isolation.

It is significant that both Erikson and Rogers emphasized the impact of social reality. According to both scholars, social rejection significantly damages the ability of the adolescent to build a coherent sense of self or identity.

The unique protection afforded by the Internet encourages people to use it as a haven in which to explore their identity. The ability to adopt different identities on the net leads to an examination of the issue of identity structure and whether a single identity is preferable to a multiple identity structure. An analysis of the role that the Internet may play in the construction or deconstruction of identity may lead to an understanding of how it may be utilized as a tool to help in the rehabilitation of members of a negatively stigmatized group. Each of these issues is described in more detail below.

Exploring our identity on the net

Turkle (1995) studied identity swapping on the Internet through multiuser dimension (MUD). On MUD, surfers build the roles of social interaction as they go along and construct their self through the interaction with others using text only. She found that people playing frequently take on the persona of the individual they are impersonating (see also Bechar–Israeli, 1995). This is consistent with Fine (1983) who argued that in fantasy games, when a person plays a character for a long time, she/he becomes more and more identified with that character and begins to mutually experience the emotions and feelings of that character.

Many users participate simultaneously in several different MUD sessions and so experience several identities at the same time. The anonymity allows people a unique opportunity for self-expression.

Turkle (1995) argues that the participation in Internet identity games is similar to participation in psychodrama. This ties in with the idea of the game as a means through which experience is formulated (Erikson, 1968). In real life, individuals experiment with different identities, until they adopt one. According to Turkle, the identity game helps to bring about psychological maturity. This is achieved by being able to discover different aspects of the self and experiencing flexible transitions between different identities. Turkle believes that the Internet supplies warmth, safety, understanding, and space

(an experience similar to that of undergoing psychotherapy), which may also create an safe environment in which to rework elements from the past. However, she points out that this is not always the case. While the surfer might feel protected on the net, there is no guarantee that s/he will go through any therapeutic process and indeed might actually make things worse for her/himself. Some people use the net to 'act out' (i.e. put an old conflict in the new setting) instead of 'working through'. Turkle suggests that the Internet can help people transform themselves by using the self-fulfilling prophecy in a positive way. By building a strong identity on the net, people can eventually affect their real life.

However, it is important to stress that even according to Freudian theory, the MUD game cannot be perceived as a total uninhibited fantasy on the part of the user. As Fine (1983) explains, what happens in fantasy games is not wholly autistic or egocentric, because gaming fantasy is based on shared experience, and the player must construct this experience through communication with others taking part in the fantasy game. During this process, the borders of the fantasy are determined by roles and norms that are part of the game. Therefore, there is a great need for the ego as a mediator. As Fine pointed out, when they take on fantasy roles, few people tend to create a persona which is wholly different from their own.

Identity games (e.g. pretending to be a woman on the Internet) may teach men something of what women may feel, at least in cyberspace. Silberman (1995), a writer for *Wired* magazine, pretended to be a woman using the pseudonym, Rose. He was surprised by the amount of attention he received as a woman and by the degree of harassment (see also Curtis, 1997). Gender swapping on the net is seen by many to be very controversial (Wallace, 1999). An interaction on the net will almost invariably start with a question referring to the gender of the other side, which indicates the importance of gender identification. This may account for the perception by Internet sex changes as perverted and unethical.

Identity swapping may be associated with the deception of other participants. This should be borne in mind by Turkle (1995) and others, who recommend the Internet as an identity lab. In some cases, this can be of no serious consequence and may be tacitly understood by all those entering the site. In other cases, the consequences can be very serious, and even fatal. If an elderly married man takes on the identity of a young single man in his twenties and subsequently becomes romantically involved with a young woman who is using her true identity of being young, single, and in her twenties, the results may be heart breaking. A recent story reported in the newspapers (Goldman, 2003) was that of a 'handsome man' called Tyrone. He was an object of

admiration by hundreds of female Internet users and he even sent his photograph to any admirer who requested it. He was sent money and presents by those who thought that only they had a serious relationship with him. This continued until one of his admirers tracked him down and discovered that Tyrone was a married woman. The police were called and Tyrone was later hospitalized following a nervous breakdown. There have also been stories of abduction and abuse by pedophiles who pretend to be contemporaries of children using the net and then arrange to meet them. The long-term effects of such incidents are as yet unknown. However, as more of these stories of deception become known, perhaps people will lose their trust in the information supplied by the other side in an Internet discussion. Should this happen, the ability to use the net as an identity lab will be more limited. An individual may change his/her identity, but the other side will not necessarily buy into that persona. It may be worth recomending limiting identity games to the Interent areas where identity swapping is part of the game.

Identity and multiplicity

Turkle (1995) argues that without coherence, the self spins off in all directions, and that multiplicity can exist only between personalities that can communicate among themselves. Thus, multiplicity is unacceptable when it leads to confusion to the point of immobility. Turkle goes on to suggest that the 'many manifestations of multiplicity in our culture, including the adoption of online personae, are contributing to a general reconsideration of traditional, unitary notions of identity' (Turkle, 1995, p. 260).

However, it should be pointed out that, although there are many scholars who have advocated the idea of integrity, unity, and internal consistency of the self (Epstein, 1973; Kelly, 1955; Lecky, 1945), the concept of multiple selves is also well known. William James (1981/1890) was one of the first to suggest the multi-selves concept. He argued: 'A man has as many social selves as there are individuals who recognize him and carry an image of him in their mind' (James, 1981, p. 190). In comparison to the classical Freudian personality model, where the ego plays a more intermediary role between libidinal energy and the environment, modern psychologists see the ego as having the overall organizing role of the personality. This enables the individual to live through conflict and contradictions and still create a coherent personality (Blanck & Blanck, 1974; Hartman, 1964; Horner, 1984).

Even within the psychoanalytical approach, there are a number of scholars who took this idea further than the classic understanding of the ego. Klein (1961) suggested that, in addition to the traditional understanding of ego's role of letting the id be expressed in a socially accepted manner, the ego also initiates stimulating situations to be experienced and mastered. A feeling of

mastery is achieved by improving the control and synthesis functions. Kohut (1977) refers to the cohesive self as a successful integration of the presentation of the human organized experience. In this cohesive self, contradictions can live together, but still create a cohesive experience.

It was also argued that individuals who perceive themselves as having a multi-faceted self (a man who perceives himself as a wonderful husband, a great father, and an excellent lawyer) are better equipped to face changes and stress in life than those who have a more limited aspect of self (Sarbin & Allen, 1968; Linville, 1987).

Linville suggested that individuals differ as to the complexity of their self-representation. This complexity refers to (1) the number of cognitive self-aspects, and (2) the level of distinction among the self-aspects in terms of features and propositions. According to Linville, people with high self-complexity have a greater number of aspects of the self and a greater distinction among them, and so cope better with stressful events as compared to those people with low self-complexity. When people with a low number of undifferentiated self-aspects experience stressful events that harm one aspect of the self, the effect will spill over and color their perception of the whole situation and their whole self-image negatively. However, when people have a multiple number of self-aspects that are highly differentiated, the stressful event will hurt only a specific self-aspect; its impact will not be generalized to the whole self, but will remain an isolated part of the self.

Linville (1987) did not examine what determines the number of cognitive self-aspects, but believed that as a people serve more social roles, their number of self-aspects will rise. For example, a student of physics who, in addition to studying, plays jazz in a band, plays basketball on a team, and is a member of the Green Peace movement, is likely to have more cognitive self-aspects as compared to a student devoting all of his/her time to studies.

It is, therefore, our belief that traditional, unitary notions of identity do not necessarily contradict the multiplicity concept as presented by Turkle (1995). It would seem, however, that the protected environment created by the Internet creates opportunities to explore our identity and enables people to hold varying identities simultaneously. In some cases, this may create elements of a therapeutic process, resulting in a more coherent and comprehensive self-identity. However, it is important to stress that while MUD may contain elements of therapy, it is not a therapy. Therefore, a lack of ability to master and integrate the multi-self Internet identities may, in some cases, lead to a collapse of identity.

Personal website and identity

The creation of a personal website may be seen as a visual construction of identity, since it contains the different roles in the life of the creator. A personal

website typically includes sections on family, work, leisure activities, and other interests. The more numerous and varied the sections on the personal website, the more likely it is believed to reflect a more significant construction of our identitiy.

Wallace (1999) suggested that the construction of a personal website can be seen as an expression of the ideal self. While in many cases, this is true, the personal website may also reflect an expression of the sought self (i.e. the self that the creator of the website believes is required by his/her social group). This would appear to contrast with the MUD phenomenon, described by Turkle (1995), as an identity lab in which people try out various, sometimes contradictory personae simultaneously. One way to understand this seeming contraction is simply that one type of person expresses him/herself by creating a personal website, while another is interested in exploring different aspects of his/her personality by trying out different personae. These two phenomena may also be seen as complementing one another. In the earlier discussion of chat sessions on the Internet, it was suggested that a chat session may be interpreted as awakening the objective self-awareness, whereby the individual refers to him/herself as an object (see the Self-awareness concept Duval & Wicklund, 1972). Building a personal website can also be part of seeing oneself as an object described on the website. The act of deciding which parts of one's identity to display, together with the viewing of that identity on the screen, gives the creator the opportunity to consider its form and perhaps decide to try and shape it differently, and in so doing is actually experimening with his/her identity.

Group identity on the net

Our identity is affected by both the groups that we belong to and those that we do not. This is termed group identity. When they identify as part of a group, people behave differently than when they are acting as individuals. LeBon (1903) pointed out that when people are part of a crowd, they revert to a 'group mind'. This group mind creates a situation where the individual appears not to be aware of his/her behavior and may act in extreme ways that he/she would not as an individual. It is important to people to have a positive identity. They will, therefore, be strongly motivated to be perceive their group positively in comparison with other groups since this will reflect directly on their own self-concept. It is, therefore, the case that even a random categorization of people into groups (according to their supposed preference of pictures by different artists) will be sufficient to promote a group identity and for people to perceive their own group as superior to other groups (Tajfel *et al*., 1971).

Lea *et al.* (2001) demonstrated that when interacting with strangers on the net, people become depersonalized and their group identity becomes more salient and attractive. This is expressed by their categorization of themselves in terms of their group identity. The group identity leads to a tendency to stereotype the other people on the basis of the groups to which they belong. This is an interesting result, since one could have predicted that the anonymity of the Internet would prevent the use of group categorization (see also Spears *et al.*, 2002).

Negatively stigmatized groups on the net

Belonging to a group that is perceived negatively in our society may create difficulties for members (Frable, 1993). Individuals belonging to certain stigmatized groups are able to hide their membership in these groups. However, people belonging to such groups are likely to experience two major psychological implications of their membership:

1 They will be able to hide their group identity, but may experience difficulties in detecting similar others in our society, creating a feeling of loneliness.
2 Because they are not identified as belonging to one of these stigmatized groups, other people are likely to express their negative stereotypes about the group they actually belong to in front of them. This is likely to lower their self-esteem (Frable, 1993).

Thousands of different groups exist on the Internet and it is fairly easy to find a group of similar others without having to risk being identified by society as belonging to a stigmatized sector. In addition, visiting websites of similar others may make people feel that their group of similar others is much larger than they had imagined. This may lead to feelings of happiness and confidence.

In a series of pioneering studies, McKenna and Bargh (1998) tested the implications of belonging to a newsgroup of similar others, concentrating on hidden stigmatized groups (i.e. where members attempt to conceal their stigma in daily life) with marginalized sexual interests and marginal political views and ideology. They found that people belonging to a stigmatized identity group were more likely to be involved in a newsgroup of similar others and considered their belonging to the group more important to their identity as compared to those who identified with a non-stigmatized interest newsgroup. Those people who were involved in the newsgroup (posters) reported elevated self-esteem, self-acceptance, and a reduced feeling of social loneliness. In addition, they were highly motivated to make their identity a social reality by telling their close circle of family and friends that they belonged to a

stigmatized group; this, in comparison to those people who did not become deeply involved in the newsgroup (lurkers). The fact that 37% of sexually stigmatized people and 63% of politically stigmatized people who were involved in a newsgroup revealed their secret to close others is significant. It demonstrates that belonging to a newsgroup of similar others can have a powerful influence on the transformation of a negative group identity into a positive one, and that the unique protected environment of the Internet can assist people in the transformation of their self-identity.

These results confirm the self-completion theory (Wicklund & Gollwitzer, 1982) which suggests that people are highly motivated to express their significant identity in the 'offline world'. McKenna and Bargh's (1998) results are consistent with those of Rogers (1961) who claimed that people who receive unconditional love from their parents are more likely to open up to their real selves. People are motivated to eliminate a false self-identity before opening up to close others; this then enables them to create a healthy whole self. This type of positive experience found in the newsgroup was pivotal in helping to solve the conflict between the self and everyday experiences, something that Rogers saw as the target of his therapy.

McKenna and Bargh's (1998) findings strengthen those of Pennebaker (1990) that revealing shameful aspects reduced negative health symptoms in the long term. Pennebaker (1995) argued that there is common agreement among psychotherapists that for a person to talk about traumatic and emotional experiences is beneficial to his/sher physiological and psychological health. Talking about a stressful event accomplishes two 'main goals':

1 Talking about the event helps to reduce and reflect anxiety.
2 Repeated disclosure over time gradually promotes the assimilation of the upsetting event.

The Internet may be seen as a modern tool, which may be utilized by an individual to reveal him/herself to others in a protected environment.

The personality–Internet interaction may prove relevant to the understanding of social issues that have arisen, reportedly, as a result of Internet use. Two of the most prominent concerns will be discussed below.

Negative social consequences associated with net use

Internet use has been widely associated with a number of harmful results. The following section will examine the two most frequently cited—loneliness and addiction.

Loneliness

Kraut *et al.* (1998) carried out a longitudinal study to examine the effects of the Internet on social involvement and psychological well-being. One of their main findings was that heavy use of the Internet is related to the experience of loneliness among users. These results are in keeping with those of other scholars who also found that Internet use caused a negative reaction among users (Nie & Erbring, 2000).

However, other scholars disagreed with Kraut *et al.*'s (1998) conclusion (Hamburger & Ben–Artzi, 2000; Rierdan, 1999; Shapiro, 1999; Silverman, 1999). They based their objections on both conceptual and methodological grounds. Shapiro (1999) heavily criticized Kraut *et al.* (1998) over their choice of subjects for the study. She pointed out that the researchers had selected participants whose life-stage meant that social contact was likely to decline as a matter of course, regardless of their Internet use. Hamburger and Ben–Artzi (2000) raised two major objections to Kraut *et al.*'s (1998) study. The first was that Kraut *et al.* failed to take into account that there is a wide diversity of services on offer on the Internet. The second was that in their study, Kraut *et al.* regarded Internet users as a single entity, claiming that they all have the same motives and needs. Hamburger and Ben–Artzi (2000) argue that these issues lead them to reject the implications drawn by Kraut *et al.* (1998) as to surfers' well-being.

Kraut *et al.* (2002) carried out a follow-up study of the one researched in 1998. They reported that the negative effects of the Internet reported previously were no longer apparent, an exception being the association of the Internet use with increased stress. In addition, they reported that their new longitudinal survey had found many positive effects resulting from use of the Internet; for example, increase in social involvement and psychological well-being (but again with increased stress). However, they emphasized that the positive results were in keeping with the pattern of the 'rich get richer' (namely, it was the extroverts and people with more social support who showed the greatest benefits from Internet use). According to their explanation, people who are effective at using social resources are more qualified to use the Internet's social channels in a more effective way and therefore gain more out of it.

This conclusion runs counter to the finding of McKenna *et al.* (2002) that it is the less able population, for example, those with social anxiety and loneliness, who are likely to benefit from the Internet. Hamburger and Ben–Artzi's (2000) findings were similar to those of McKenna *et al.* (2002). They too found that it is the introverts and the neurotics who are likely to benefit more

from the protected environment of the Internet. Amichai–Hamburger and Ben–Artzi (2003) compared two models dealing with the relationship between loneliness and Internet use: Kraut *et al.*'s (1998) model that the Internet leads to loneliness; and an alternative model that the use of the Internet by lonely people is the result of their situation and not the cause of it. They found that the use of Internet services was related to loneliness and neuroticism only in the case of women. They then compared the two models as they related only to women. They compared goodness of fit to the data using LISREL 8 (Jöreskog & Sörbom, 1993). A satisfactory goodness of fit was found for the second model. That is, according to this model, the increased use of the Internet social services by highly neurotic women is a result of their loneliness and is seen as a means to counter it. The case of neurotic women was the only one in which a link was found to loneliness, and even in this case the results ran counter to those of Kraut *et al.* (1998).

Addiction

Traditionally, addiction was related to chemical dependence, for example, on alcohol and drugs. Later, other behaviors were included, for example, teleshopping and Internet addiction. Griffith (1995) was the first to define technological addiction as a behavioral addiction involving human-machine interaction. Young (1997) suggested that it is not the Internet itself that is addictive, but rather specific Internet interactive services.

Overall, it seems that there are two main profiles of people who have a tendency to become addicted to the net: people with social inhibitions and sensation seekers. The first scholar to indicate this was Shotton (1991) who suggested that the two main personality characteristics found in addicts were introversion and sensation seeking. Most studies reinforced the relationship between socially inhibited surfers and addiction. Loytsker and Aiello (1997) found that proneness to boredom, private self-consciousness, loneliness, and social anxiety were related to Internet addiction. Young and Rodgers (1998) suggested that individuals who closely guard their privacy and non-conformists are those who are likely to perceive the Internet as answering their needs, and so may become addicted to its unique qualities.

Armstrong *et al.* (2000) argue that poor self-esteem is a good predictor of Internet addictive behavior. The question remains, however, as to whether low self-esteem leads to Internet addiction or, conversely, that it is in fact Internet addiction that leads to low self-esteem.

The relationship between addiction and personality is still an unsolved puzzle. To better understand the relationship, it is important to avoid falling into generalizations about Internet addiction, but rather to talk about specific

addictions (e.g. chat addicts, information addicts, sex addicts). It seems that people with low self-esteem and non-conformists will not necessarily suffer from Internet addiction in the same way. It is only by understanding the relationship between addiction to specific services and specific personality characteristics that we will be able to tackle this topic and provide appropriate treatment for addicts.

Having discussed the relevance of personality to some negative phenomena like loneliness and addiction, we will now deal with how the net may be utilized to enhance our lives.

More on positive consequences of Internet use

Earlier, some of the positive abilities of the Internet to help people to express themselves were discussed. Now, we examine how the Internet can be used to help people come to terms with an existential human conflict (i.e. the need to belong to a group and at the same time the need to be an individual). In addition, we will explore how the Internet can supply tools for people to transfer the sense of effective self-efficacy they feel during a net interaction to the more traditional face-to-face communication.

Relatedness vs. autonomy

Erich Fromm (1941), the romantic humanistic psychologist, argued that human beings strive for freedom and autonomy, but at the same time have a need to relate to significant others. The way that this tension is resolved will depend on the particular society. In a capitalist system that values individual freedom and power, people are more likely to feel loneliness and isolation, whereas in a collectivist society which stresses the human need to belong to a group, members of that society may have to make sacrifices in terms of their individuality and personal fulfillment.

According to Fromm, the human conflict between the striving for freedom and the striving for security is a result of five basic human needs:

1 A need to relate to others—to have someone to care for, share with, and be responsible for.
2 A need for transcendence—to rise above our animal nature, to be creative.
3 A need for rootedness—to replace our separation from nature with feelings of kinship with others.
4 A need for identity—to achieve distinctiveness through one's efforts or through identification with another person or group.
5 A need for a frame of reference—to have a stable structure or framework that will aid in the organizing and understanding of one's experience.

When these needs are considered in terms of constituents of the Internet, it is clear that the net has the ability to answer the high need to belong and relate to others. This is achieved, for example, through the ease with which it is possible to find similar others and groups of interest. In this way, the Internet can compensate for the isolation and loneliness found in our culture. Fromm's basic human needs, especially those for relatedness, identity, and frame of reference, may be answered by the various services offered on the net.

A similar hypothesis dealing with the contradictions in human instincts was offered by the optimal distinctiveness theory of Brewer (1991). According to this theory, people are motivated by two contradicting motives: the need to express individuality and the need to belong to a large, significant group. Brewer differentiated between collective identity (the belonging to large groups) and the interpersonal identity (the relating to others on an individual basis). In both, the individual defines him/herself as an identity related to others either as part of a large group or as individuals. These needs contradict each other; satisfying one means evoking the need for satisfying the other. People strive to belong to a group that satisfies both needs in the most optimal way (see also Brewer & Gardner, 1996).

Bettencourt and Sheldon (2001) attempted to resolve the dichotomy of Brewer's (1991) motive contradiction by introducing the social role. According to Biddle (1979), the social role refers to 'a behavioral repertoire, characteristic of a person or a position; a set of standards, descriptions, norms, or concepts held for the behaviors of a person or social position' (Biddle, 1979, p. 9). Social roles, by definition, involve an interaction with group members. As role holders contribute to group goals through the fulfillment of their role, they become more connected to the group. This is especially true when they fit their role well. When a social role is consistent with the individual's self-concept and his/her core skills, he/she is likely to feel autonomy and self-expression as well. It means that the seemingly contradicting motives of autonomy and relatedness can be mutually achieved when the individual performs social roles that fit his/her ability and characteristics. This argument was proved in a series of studies.

Despite the seemingly optimistic approach of Bettencourt and Sheldon (2001), it is important to stress that, in many cases, groups demand that individuals take on social roles not of their choosing. Those responsible for allocating these roles will not necessarily take into account the skills, abilities, and motives of the individual, but will rather look to the needs of the group. In addition, roles are frequently allocated according to the social role to which the group is aspiring. In such a case, an individual may be chosen to perform a certain role according to the general perception that is held of him/her. This

perception may not be in keeping with whom he/she really is, or may be outdated and, therefore, the fit between personality and social roles in many cases will not be accurate. This may be the case even when the group attempts to choose the best person for the role.

In the Internet arena, it may be easier to find social roles that allow individuals their self-expression and even their self-actualization, since the net gives individuals more freedom to choose the groups and the social roles that suit them. The act of compelling someone to take on a role does not exist on the Internet, since any attempt to do this will lead the surfer to disagree, to express alternatives, and, should this not be acceptable, to leave. It seems that the Internet creates an environment where the contrast between the need to relate and the need for autonomy is very limited and, in fact, the Internet is able to sustain situations in which both needs are mutually fulfilled. In this case, there are positive implications to be considered that pertain to individual well-being.

Generalizing from positive Internet experience

Self-efficacy is closely related to self-confidence. It is a person's evaluation of his or her ability or competency to perform a task, reach a goal, or overcome an obstacle (Bandura, 1977). People who develop a high self-efficacy in a certain area believe in their ability to be agents of change in that area.

The Internet has a unique potential to assist people who have social difficulties (e.g. introverts, neurotics, or the socially anxious) to develop the ability to build and maintain relationships. In some cases, as McKenna *et al.* (2002) suggested, there may be a natural transition from an online relationship to an offline association. However, for some people, this social self-efficacy, newly acquired through the net, may be confined there and will not be generalized beyond the borders of cyberspace—this despite the fact that some of these surfers may wish to extend this ability to the offline world as well. Particularly among people suffering from an extreme form of social anxiety, the transition from an Internet connection to a real-life association might be too great a leap.

However, it is my belief that as well as providing a medium through which socially inhibited people acquire social skills and the confidence that goes with them, the Internet also supplies a learning environment that may be structured to enable people to learn how to transfer their new communication skills from the net to a real-life, face-to-face interaction. This model may also serve the population of extremely socially anxious individuals who are particularly prone to generalize their Internet interpersonal skills inwards to be used widely and exclusively in virtual communication. This model advocates an

exceptionally gradual process to help the individual to begin to loosen the total control he/she feels on the Internet and so equip him/herself to cope with the relative loss of control in a real-life situation. The main steps in this graded contact are as follows:

1 Communicating by text only: this text-only interaction is the most common form of communication over the net. This stage will continue until the participant feels secure in this form of contact and his/her anxiety levels are negligible.

2 Text + image: participants will continue to use the text method with which they feel secure, but will simultaneously view a live video image of the person with whom they are interacting. When low-level social anxiety has been established, participants will transfer to the next stage.

3 Communicating by video + audio: at this stage, people will still interact from their secure environment and still without physical proximity to their conversation partner. However, use of text messages by the subject will be reduced; instead he/she will communicate orally. In addition, a live image of the subject will be transferred to the other participant. Again, when a satisfactory level of comfort has been achieved, participants may progress to the next stage.

4 Face-to-face interaction: this is the stage of regular face-to-face interaction. It is predicted that this process will successfully bridge the gap between text-only Internet contact and total exposure through a face-to-face encounter, and do so in a way that continually preserves low levels of anxiety among participants.

By creating a very gradual process, moving slowly from a totally protected environment to one which is significantly less protected, through several stages in which the protection is gradually lifted, extremely socially anxious people may be particularly helped. This process demonstrates the power of the Internet, not only as a supplier of a protective environment, but as one providing the tools to create a process of change from social anxiety to secure social relationships.

Conclusion

This chapter has examined the ways in which the net may be used to help rehabilitate certain disadvantaged individuals, for example, those suffering from social anxiety, the lonely, introverts and neurotics, or people suffering from a stigmatized identity. These types of people may feel comfortable in the highly protected world of the Internet and will, therefore, adopt it as their chosen environment. For them, the ability to express the 'real me' on the net is not a minor aspect of life, but a very crucial one. It is important to remember

that people who cannot express their 'true self' are prone to serious psychological disorders (Rogers, 1951). The chapter also showed how the Interent can serve as an identity lab for its users, both in terms of its positive potential and its hazards.

The chapter went on to demonstrate the relevance of personality to two of the main social problems attributed to the net—addiction and loneliness. The complexity of these issues was exposed and further research is recommended. The chapter concludes with a discussion of two potentially effective ways in which well-being may be improved through the Internet : first, the ability to solve the conflict between the need to express individuality and the need to belong to a large, significant group; and second, the potential to create a generalization between successful online interaction and the offline world.

This chapter has brought together the personality theories from schools such as those of Jung, Erikson, Rogers, and Fromm, and the most modern of inventions, the Internet. It has been fascinating to discover how relevant the theories of these scholars are to the human behaviors found in cyberspace. Jung's assertion that introversion and extroversion can coexist as complementary personality aspects, rather than polar opposites, is applicable to the Internet, where introverts have been shown to behave as extroverts. Rogers' humanistic approach proved useful in explaining the significance of the Internet to people who have difficulties in expressing their real self in the more traditional world. The Internet identity experiments played out through intrigues of the MUD games were explained by Erikson, with his general emphasis on identity and more specific emphasis on the importance of games in the creation of identity. The Internet was found to have a useful role in the resolution of the existential conflict as defined by Fromm as relatedness vs. autonomy.

The Internet has been described as a virtual world; the implication being that on some level, cyberspace is a poor second to the real world. This chapter has demonstrated clearly that the Internet is a powerful reality, where the most basic components of our personality and identity are touched by others and expressed to others. However, despite our positive approach, it is important to remember that the Interent also has a negative potential. Enhancing our knowledge in this field will enable us to create a net that will enhance users' well-being.

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