REVIEW OF LITERATURE

A. CONCEPTUAL FRAMEWORK

PERSONALITY

The concept of personality has retained its fascination for the thinkers all over the world (Mohan, 2000). ‘Personality’ refers to the true inner characteristics of the person – whether one is withdrawn or outgoing, excitable or placid, conscientious or careless, kind or stern. Baron (2001) defines personality as “an individual’s unique and relatively stable pattern of behaviours, thoughts and emotions.” Thus, a basic assumption of the personality concept is that people do differ from one another in their style of behaviour, in ways that are at least relatively consistent across time and place (Ferguson, 2000).

Eysenck’s Theory of Personality

Eysenck’s theory of personality is one of the formidable attempts in presenting a complete and explanatory theory. Eysenck (1968) defined personality as, “a more or less stable and enduring organization of a person’s character and temperament, intellect and physique which determines his unique adjustment to the environment.” Eysenck developed and presented an exhaustive theory of personality on the basis of intensive research over the years (1947, 1960, 1963, 1967, 1971, 1981). He posited four independent major dimensions of personality viz. Extraversion – Introversion, Stability – Instability (Neuroticism), Intelligence – Psychoticism, and Social Desirability (Lie Scale) (Mohan et al., 1987, 2000).
Eysenck and Eysenck (1968) proposed that a typical extrovert is sociable, exuberant, likes parties, has many friends, craves excitement, and is impulsive, carefree, easy going and optimistic. In contrast, a typical introvert is shy, self-controlled, quiet, retiring, reserved, introspective, inhibited, and does not like excitement. Introverts are more sensitive to pain than extraverts, they become fatigued more easily than do extraverts, excitement interferes with their performance whereas it enhances performance for extraverts, and they tend to be more careful but less fast than extraverts. Extraverts prefer vocations that involve interactions with other people whereas introverts tend to prefer more solitary vocations. Extroverts are more suggestible than introverts.

People low on neuroticism are emotionally stable, reliable, calm, and even-tempered. Those high in neuroticism tend to be emotionally unstable, easily aroused, worried, reacts too strongly to all sorts of stimuli, and frequently complain about anxieties and bodily pains. His strong emotional reactions interfere with his proper adjustment, making him react in irrational and rigid manner. Eysenck relates neuroticism to personality traits such as anxiety, tension and worry. Psychoticism includes a disposition towards psychoses and a degree of psychopathology. Unlike extraversion and neuroticism, psychoticism is not a dimension with polar opposites; rather it is an ingredient that is present to varying degrees in individual personalities.

The Social Desirability (Lie scale) was first incorporated in the Eysenck Personality Inventory (EPI) to measure a tendency on the part of the subjects to fake good responses. It is considered as a tendency to respond in a socially desirable way; it is variously described as a desire to conform to social norms (Edwards, 1954); nice personality (Skinner at al., 1970); ideal self and ideal responses (Choudhary, 1972).
ANXIETY

Anxiety (also called angst or worry) is a psychological and physiological state characterized by somatic, emotional, cognitive, and behavioral components (Seligman et al., 2001). It is the displeasing feeling of fear and concern (Davison, 2008). The root meaning of the word anxiety is ‘to vex or trouble’; in either presence or absence of psychological stress, anxiety can create feelings of fear, worry, uneasiness, and dread (Bouras and Holt, 2007). Anxiety is considered to be a normal reaction to a stressor. It may help an individual to deal with a demanding situation by prompting them to cope with it.

Anxiety is a generalized mood condition that can occur without an identifiable triggering stimulus. As such, it is distinguished from fear, which is an appropriate emotional response to a perceived threat. Additionally, fear is related to the specific behaviors of escape and avoidance, whereas anxiety is related to situations perceived as uncontrollable or unavoidable (Ohman, 2006). Another view defines anxiety as "a future-oriented mood state in which one is ready or prepared to attempt to cope with upcoming negative events" (Barlow, 2002), suggesting that it is a distinction between future vs. present dangers which divides anxiety and fear. In a 2011 review of the literature (Sylvers et al., 2011), fear and anxiety were said to be differentiated in four domains: (1) duration of emotional experience, (2) temporal focus, (3) specificity of the threat, and (4) motivated direction. Fear was defined as short lived, present focused, geared towards a specific threat, and facilitating escape from threat; while anxiety was defined as long acting, future focused, broadly focused towards a diffuse threat, and promoting caution while approaching a potential threat.

Speilberger (1972) pointed out that anxiety can be of two types viz. State Anxiety and Trait Anxiety. **State Anxiety (A-state)** is conceptualized as
a transitory condition of unpleasant, consciously perceived feelings of tension, apprehension, and nervousness that vary in intensity and fluctuate in time as a reaction to circumstances that are perceived as threatening (Diane et al., 1993; Spielberger, 1983). Trait Anxiety (A-Trait) refers to the relatively stable individual differences that are impervious to situational stress (Diane et al., 1993; Spielberger, 1983).

SENSATION SEEKING

Sensation seeking has been defined by Zuckerman (1979) as a trait illustrating "the need for varied, novel, and complex sensations and experiences and the willingness to take physical and social risks for the sake of such experience. Sensation seeking may include a wide variety of activities such as drug use, aggression, sex, skydiving, body-contact sports, hiking and camping, or playing computer and video games. Zuckerman (1979) opined that Sensation Seeking was a multidimensional construct consisting of four sub scales:

1. **Thrill and Adventure Seeking**: It refers to a desire to engage in sports or activities involving some physical danger or risks such as mountain climbing, parachute jumping, speeding in a car etc.

2. **Experience Seeking**: It refers to a desire to seek new experiences through the mind and the senses. This can be accomplished through music, art, travel and by living in a non-conforming lifestyle with unconventional friends.

3. **Disinhibition**: It refers to a need to disinhibit behavior in the social sphere by drinking, partying, and seeking variety in sexual partners; rebellion against unconventional social norms.
4. Boredom Susceptibility: It refers to an aversion for repetitive experience of any kind, routine work or even dull or predictable people.

Sensation seeking has been found to influence both occupational choices and the types of reactions and interactions in which individuals engage (Roberti, 2004). Sensation seekers are motivated by the novelty of the experience and the complexity of the stimulus, and they attempt to increase the intensity of the stimulation they experience (Roberti, 2004; Zuckerman, 2006). For example, high sensation seekers are more likely to engage in sports (Zuckerman, 1994), show a greater desire to engage in physical aggression (Joireman et al., 2003), to watch violent action films (Aluja-Fabregat and Torrubia-Beltrí, 1998), and are more prone to listen to rock music (Little and Zuckerman, 1986). Sensation seeking also tends to be more common among men than women (Zuckerman et al., 1991). Furthermore, sensation seekers show a tendency to seek out media depicting arousing material (Zuckerman et al., 1976; Schierman and Rowland, 1985; Greenberg and Woods, 1999; Vanwesenbeeck, 2001) and hold more permissive sexual attitudes (Zuckerman, 1994).

Sensation (novelty) seeking is a significant feature during the adolescence period (Farley and Cox, 1971; Newcom and McGee, 1991) and highly related to some risk or adventure behaviors, such as drug use (Donohew et al., 1999), drinking driving (Jonah, 1997), diving, or parachuting (Zarevski et al., 1998).

LOCUS OF CONTROL

Locus of control refers to a set of beliefs about how one behaves and the relationship of that behavior to how one is rewarded or punished (Morris, 1979). Rotter defined locus of control as the degree to which a person believes that control of reinforcement is internal versus the degree to which it
is external (Rotter, 1966). If one believes that rewards are the results of their own behavior, this would be an internal locus of control. On the other hand, if one believes that rewards occur as a result of intervention by others, one believes in an external of control. Levenson created a multidimensional scale which is comprised of three independent components, namely, internality, powerful others, and chance, wherein one can regard oneself as internal and yet also believe in the power of luck (Levenson, 1981).

Locus of control refers to an individual's generalized expectations concerning where control over subsequent events resides. In other words, who or what is responsible for what happens. Julian Rotter’s original (1966) locus of control formulation classified generalized beliefs concerning who or what influences things along a bipolar dimension from internal to external control: "Internal control" is the term used to describe the belief that control of future outcomes resides primarily in oneself while "external control" refers to the expectancy that control is outside of oneself, either in the hands of powerful other people or due to fate/chance.

Generally, the development of locus of control stems from family, culture, and past experiences leading to rewards. Most internals have been shown to come from families that focused on effort, education, and responsibility. On the other hand, most externals come from families of a low socioeconomic status where there is a lack of life control (Levenson, 1973). This concept was developed by Julian Rotter in the 1960s. He originally named this concept Locus of Control of Reinforcement. Rotter actually bridged the gap between Behavioral and Cognitive Psychology. He believed that behavior was greatly guided by the use of reinforcements. These punishments and rewards in turn shaped the way people interpreted the results of their own actions (Levenson, 1973).
‘Locus of Control’ refers to people's very general, cross-situational beliefs about what determines whether or not they get reinforced in life. People can be classified along a continuum from very internal to very external. People with a strong internal locus of control believe that the responsibility for whether or not they get reinforced ultimately lies with themselves. Internals believe that success or failure is due to their own efforts. In contrast, externals believe that the reinforcers in life are controlled by luck, chance, or powerful others. Therefore, they see little impact of their own efforts on the amount of reinforcement they receive.

MENTAL HEALTH

The World Health Organization (2005) defines mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community". It was previously stated that there was no one "official" definition of mental health. Cultural differences, subjective assessments, and competing professional theories all affect how "mental health" is defined (World Health Report, 2001). There are different types of mental health problems, some of which are common, such as depression and anxiety disorders, and some not so common, such as schizophrenia and bipolar disorder (Kitchener and Jorm, 2002).

Mental health can be seen as a continuum, where an individual's mental health may have many different possible values (Keyes, 2002). Mental wellness is generally viewed as a positive attribute, such that a person can reach enhanced levels of mental health, even if they do not have any diagnosable mental health condition. This definition of mental health highlights emotional well-being, the capacity to live a full and creative life, and the flexibility to deal with life's inevitable challenges. Many therapeutic systems and self-help books offer methods and philosophies espousing
strategies and techniques vaunted as effective for further improving the
mental wellness of otherwise healthy people. Positive psychology is
increasingly prominent in mental health.

A holistic model of mental health generally includes concepts based
upon anthropological, educational, psychological, religious and sociological
perspectives, as well as theoretical perspectives from personality, social,
clinical, health and developmental psychology (Witmer and Sweeny, 1992;
Hattie et al., 2004).

An example of a wellness model includes one developed by Myers et
al. (2000). It includes five life tasks—essence or spirituality, work and leisure,
friendship, love and self-direction—and twelve sub tasks—sense of worth,
sense of control, realistic beliefs, emotional awareness and coping, problem
solving and creativity, sense of humor, nutrition, exercise, self care, stress
management, gender identity, and cultural identity—which are identified as
characteristics of healthy functioning and a major component of wellness. The
components provide a means of responding to the circumstances of life in a
manner that promotes healthy functioning.

Mental health is more than the mere absence of a mental disorder or
illness. Quite simply, mental health refers to a person’s health of the mind
(Kozier, 2008). Therefore the impact of social, cultural, physical and
education can all affect someone’s mental health (Kitchner and Jorm, 2002).

STRESS

The word “Stress” is borrowed from physics and engineering where it
has a very precise meaning, a force of sufficient magnitude to distort or
deform when applied to a system. Stress is a general term to describe tense
situations and reaction to stress usually has a strong emotional content. Hans
Selye (1950, 1976), the pioneer in the area of stress research, defined stress as the "non specific response of the body to any demand".

Lazarus (1966) defined stress as an organizing concept that includes a number of variables and processes – relationship between the person and the environment that is appraised by the person as taxing or exceeding his/her resources and endangering his/her well being.

Larsen (2000) opined that stress is the subjective feeling that is produced by events that are perceived as overwhelming and beyond one’s control. Events that typically elicit stress are called stressors. There are individual differences in response to stress. Stress really lies in the transaction between the person and the characteristics of the environment. Personality processes may moderate this transaction.

**Types of Stressors**

Stressors can be grouped into two categories:

a) Life Events Stress

b) Chronic Stress or Daily Hassles

**Stressful Life Events**

According to Encyclopedia of Stress (2000), a life events stress is a comprehensive list of external events and situations (stressors) that are hypothesized to place demands that tend to exceed the capacity of the average person to adapt. The difficulty in adaptation leads to physical and psychological changes or dysfunction, creating risk for psychological disorder or physical disease.
Solanki and Ganguly (1987) stated that life stress refers to a state of imbalance with an organism that (i) is elicited by an actual or perceived disparity between environmental demands and the organism’s capacity to cope with these demands, and (ii) is manifested through variety of psychological, emotional and behavioral responses.

**Daily Hassles or Chronic Stress**

Hassles are irritants, things that annoy or bother, which can make a person upset or angry, whereas uplifts are events that make one feel good, joyful, glad, or satisfied. Some hassles and uplifts occur on regular basis and others are relatively rare. Hassles and uplifts are related to the health of an individual.

**Stress Symptoms**

According to European Agency for Safety and Health at Work (2011) People experience stress when they perceive that there is an imbalance between the demands made of them and the resources they have available to cope with those demands. The experience of stress can alter the way a person feels, thinks and behaves. The symptoms of stress can be seen in the emotional reactions (irritability, anxiety, sleep problems, depression, hypochondria, alienation, burnout, family relationship problems); cognitive reactions (difficulty in concentrating, remembering, learning new things, making decisions); behavioral reactions (abuse of drugs, alcohol, and tobacco; destructive behavior), and physiological reactions (back problems, weakened immunity, peptic ulcers, heart problems, hypertension).
COPING

Individuals cannot remain in a state of tension. Even if a deliberate and conscious strategy is not adopted to deal with stress, some strategy is surely adopted. According to Lazarus (1981) coping refers to cognitive and behavioral efforts to manage disruptive events that tax the person’s ability to adjust. Coping is a survival mechanism conceptualized as a transaction between an individual and the environment in which a response is directed at minimizing the psychological, emotional, and physical burdens associated with a stressful situation. It consists of constantly changing cognitive, behavioral, and emotional efforts to manage particular external and/or internal demands that are appraised as taxing or exceeding the resources of the person (Lazarus and Folkman, 1988).

According to Mohan (2003) coping is a continuous cognitive and behavioral process of overcoming stress and stressful consequences of external forces.

Carver et al. (1982) have organized the dimensions of appraisal and coping included in measurement procedure into three domains:

1. **Task Focused Coping**: This seeks to modify or eliminate the sources of stress. One feels comfortable in analyzing the situation and taking action to deal directly with the situation.

2. **Emotion Focused Coping**: This includes responses whose primary function is to manage the emotions aroused by stressors and thereby maintain effective equilibrium. One may prefer to deal with one’s feelings and find social supports.

3. **Avoidance Focused Coping**: It involves attempts to define the meaning of a situation and includes such strategies as logical analysis
and cognitive redefinition. One may use activities or work to take one’s mind off the situation.

SHYNESS

Shyness is the fear to meet people and the discomfort in others’ presence (Pilkonis, 1977a). At its core is anxiety about being evaluated by others and consequently rejected (Pilkonis, 1977b). It is associated with excessive monitoring of behavior and takes the form of hesitation in making spontaneous utterances, reluctance to express opinions, and making responses to the overtures of others that reduce the likelihood of further interaction. Shy people suffer numerous disadvantages. Compared with others, they more likely regard their networks (i.e., offline networks) as less supportive and less satisfying and are not happy to be by themselves or to participate minimally in social encounters (Parrott, 2000). Jones and Carpenter found that shy people had less social support, smaller friendship networks, and fewer, more passive interactions in their offline lives than the non-shies (Jones and Carpenter, 1986).

Shyness has been defined as discomfort and inhibition while in the presence of others (Cheek and Buss, 1981). Shy persons tend to have less satisfactory interpersonal involvements and fewer friends (Jones and Russell, 1982). They also tend to talk less and be described by others as unfriendly (Cheek and Buss, 1981).

While not considered a psychiatric disorder, shyness has also been associated with social phobia due to its conceptual similarity (e.g., increased arousal and discomfort in social situations). With respect to theoretical similarity, both shyness and social phobia are theorized as containing three dimensions: a physiological/affect (i.e., feelings of anxiety), behavioral (e.g., difficulty in or avoidance of social situations), and cognitive (e.g., excessive
self-conscious and negative self-evaluation) dimension (Stemberger et al., 1995; Cheek and Krasnoperova, 1999).

### Symptoms of Shyness

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Physiological</th>
<th>Cognitive</th>
<th>Affective</th>
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<tbody>
<tr>
<td>Inhibition and passivity</td>
<td>Accelerated heart rate</td>
<td>Negative thoughts about the self, the situation, and others</td>
<td>Embarrassment and painful self-consciousness</td>
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<tr>
<td>Gaze aversion</td>
<td>Dry mouth</td>
<td>Fear of negative evaluation and looking foolish to others</td>
<td>Shame</td>
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<tr>
<td>Avoidance of feared situations</td>
<td>Trembling or shaking</td>
<td>Worry and rumination, perfectionism</td>
<td>Low self-esteem</td>
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<td>Low speaking voice</td>
<td>Sweating</td>
<td>Self-blaming attributions, particularly after social interactions</td>
<td>Dejection and sadness</td>
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<tr>
<td>Little body movement or expression or explosive</td>
<td>Feeling faint or dizzy, butterflies in stomach or</td>
<td>Negative beliefs about the self (weak) and others (powerful), often out of</td>
<td>Loneliness</td>
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LONELINESS

Loneliness has been defined as "a sense of isolation that persists over time" (Perse and Rubin, 1990). Lonely persons tend to be deficient in communication skills (Spitzberg and Canary, 1985). In turn, these deficiencies isolate people from the very social activities that might reduce loneliness (Perse and Rubin, 1990).

Loneliness is not the same thing as being alone. Solitude is the state of being alone and secluded from other people, and often implies having made a conscious choice to be alone. Loneliness on the other hand, refers to unwilling solitude (Marano, 2003).
Loneliness is an emotional state in which a person experiences a powerful feeling of emptiness and isolation. It is a feeling of being cut off, disconnected from and alienated towards other people. Lonely people often experience a subjective sense of inner emptiness or hollowness, with feelings of separation or isolation from the world (Smith, 1988).

Although shyness and loneliness are distinct constructs, they tend to overlap, in as much as measures of each typically correlate in the .40 to .50 range (Jones et al., 1990). Both are linked to unsatisfactory social interaction (Jones et al., 1990).

PARENTAL BONDING

Parental bonding is the emotional and physical attachment occurring between a parent or parent figure and offspring that usually begins at birth and is the basis for further emotional affiliation. According to Lezin et al. (2004), parental bonding is characterized by a positive, stable, emotional bond. It is measured by acceptance, spending time together, the parent’s availability to the child and enjoyment of being with the child. When connection is high, the child learns to trust adults, values himself or herself, and becomes willing and able to initiate social interaction outside of the home. Bonding is a gradually unfolding experience that can take hours, days, weeks, or months to develop.

Parker et al. (1979, 1989) stated that there are two dimensions of Parental Bonding, viz., an affective variable or protection (Care) and a regulatory one (Control or Overprotection). Further, the bonding develops separately with the father and mother.

A paternal bond refers to the relationship between a father and his child. The father of a child can develop the bond during the pregnancy of his
partner, feeling attachment to the developing child. Research indicates that this may have some biological basis (Palmer, 2002). The maternal bond is typically the relationship between a mother and her child. There are hundreds of factors, physical and emotional, which influence the mother-infant bonding process. The mother-child bond is considered to be a special and somehow magical connection which transcends mere relationship (Mitchell, 1992).

SATISFACTION WITH LIFE

According to Diener and Lucas (2000), past research of psychological well-being has traditionally focused on the negative aspects of people’s lives but researchers have currently begun to look at the positive side of emotional well-being. This is especially done in the field of subjective well-being, which is looking at areas such as satisfaction with life, which is only one component of subjective well-being (Strack et al., 1991; Myers and Diener 1995; Kahneman et al., 1997; Diener et al., 1997). Life satisfaction is a cognitive judgment of subjective well being (SWB), which stands for the way people are evaluating their lives. People appraise situations differently depending on their expectations, values, and previous experiences. Subjective well-being researchers allocate importance to this subjective factor and measure individual’s thoughts and feelings about their lives (Diener and Lucas, 2000). These thoughts and feelings can be affective (e.g., the presence of joy) and cognitive (e.g., life satisfaction). The affective appraisals of well-being reflect people’s ongoing evaluations of the conditions in their lives and the cognitive appraisal is a global judgment about the quality of a person’s life. This global, cognitive judgment is referred to as life satisfaction (Andrews and Withey, 1976).

A way to capture true happiness and to measure SWB is by using the Satisfaction With Life Scale (SWLS), which was developed by Diener et al. in 1985; and reviewed by Pavot and Diener in 1993. People can evaluate their
life satisfaction in this self-report measure. Moreover, this survey assesses the occurrence of enjoyable or not enjoyable emotions. Factor analyses on the Satisfaction With Life Scale (SWLS; Diener et al., 1985) confirmed that a one-factor model could be used in 41 nations (Vittersø et al., 2002). The construct of life satisfaction (LS) is universal and people from different nations respond in a similar way to the life satisfaction inventory (Tov and Diener 2007).

Life Satisfaction refers to an individual’s personal judgment of Well Being and quality of life based on his or her own chosen criteria (Shin and Johnson, 1978; Diener et al., 1984; Diener et al., 1985). Veenhoven (1991) defined life satisfaction as “the degree to which an individual judges the overall quality of life as a whole favorably.”

PERCEIVED SOCIAL SUPPORT

Social support can be defined and measured in many ways. It can loosely be defined as feeling that one is cared for by and has assistance available from other people and that one is part of a supportive social network. These supportive resources can be emotional (e.g., nurturance), tangible (e.g., financial assistance), informational (e.g., advice), or companionship (e.g., sense of belonging). Social support can be measured as the perception that one has assistance available, the actual received assistance, or the degree to which a person is integrated in a social network. Support can come from many sources, such as family, friends, pets, organizations, coworkers, etc.

Social support can be categorized and measured in several different ways. There are four common functions of social support (Wills, 1985, 1991; Uchino, 2004).
a) **Emotional support** is the offering of empathy, concern, affection, love, trust, acceptance, intimacy, encouragement, or caring (Slevin et al., 1996; Langford et al., 1997). It is the warmth and nurturance provided by sources of social support (Taylor, 2011). Providing emotional support can let the individual know that he or she is valued (Slevin et al., 1996). It is also sometimes called esteem support or appraisal support (Wills, 1991).

b) **Tangible support** is the provision of financial assistance, material goods, or services (House, 1981; Heaney and Israel, 2008). Also called instrumental support, this form of social support encompasses the concrete, direct ways people assist others (Langford et al., 1997).

c) **Informational support** is the provision of advice, guidance, suggestions, or useful information to someone (Krause, 1986; Wills, 1991). This type of information has the potential to help others problem-solve (Tilden and Weinert, 1987; Langford et al., 1997).

d) **Companionship support** is the type of support that gives someone a sense of social belonging (and is also called belonging) (Wills, 1991). This can be seen as the presence of companions to engage in shared social activities with (Uchino, 2004).

Researchers also commonly make a distinction between perceived and received support (Barrera, 1986; Taylor, 2011). Perceived support refers to a recipient’s subjective judgment that providers will offer (or have offered) effective help during times of need. Received support (also called enacted support) refers to specific supportive actions (e.g., advice or reassurance) offered by providers during times of need (Gurung, 2006).
Cohen and colleagues proposed that social support affects health and mortality through a number of mechanisms that include (a) improved health behaviors (i.e., people who have social support take care of themselves better than those who are socially isolated), (b) decreased negative affect, and (c) improved immune system functioning, which might be tied to affect regulation (Cohen, 1988; Cohen et al., 1997).
B. REVIEW OF PSYCHOSOCIAL CORRELATES OF INTERNET ADDICTION

The growing body of research in the area of addiction suggests that Internet Addiction Disorder, a psycho-physiological disorder involving tolerance; withdrawal symptoms; affective disturbances; and interruption of social relationships, is a presenting problem that is becoming more common in society as on-line usage increases by the day. With the growing importance of the Internet in everyday life, more and more people are accessing various on-line resources each day. The World Wide Web is informative, convenient, resourceful, and fun. For some people though—the addicted—these benefits are becoming detriments. There are varying opinions on the subject, especially among those who utilize the Internet. Some say that the Internet can be addicting, to the point that it disturbs one’s life and the lives of those around him. Others say that there is no such thing as Internet Addiction Disorder—getting pleasure out of a computer is not the same as getting pleasure from cocaine or any other drug. Whether there is or is not a bona fide disorder, the Internet is disrupting many people's lives (Ferris, 2003). Young (1996) demonstrated that addictive use of the Internet led directly to social isolation, depression, familial discord, divorce, academic failure, financial indebtedness, and job loss.

In a survey of Internet addiction in students in India, Nalwa and Anand (2003) found that Internet-dependent users often spend excessive amounts of time online, delaying work and losing sleep due to late-night log-ons. The disrupted sleep patterns due to late-night Internet sessions may lead to excessive fatigue and thus impair functioning in the academic and occupational realms. Chen et al. (2003) also reported that people with addictive behaviors were more likely to have health morbidity, socioeconomic problems and behavioral problems.
The Internet has numerous social, psychological, and educational benefits. But despite its positive aspects, the Internet has been linked to a variety of problems. Shotton (1989) and Young (1996, 1996a, 1998b, 1998b) reported that Internet users spend less time with people in their lives, resulting in impatience, arguments, and a strain on the relationships. A person’s schoolwork or employment may also suffer if too much time is spent scanning the Internet. The Internet may also be used by individuals to escape social interactions and may, thus, hinder their development of social skills.

Consequently it’s important to study the psychosocial factors related with this upcoming technological addiction.

1. INTERNET ADDICTION AND PERSONALITY DIMENSIONS

Working in the area of Locus of Control, Corno (1993) reported that individuals with an external rather than an internal locus of control of reinforcement find it harder to ignore extraneous noise, stimuli or other distractions when working and feel less in control of their accessibility to others.

Egger and Rauterberg (1996) found that internet addicts tended to use internet for longer durations. They also found that the Internet addict group felt more anxious if their Internet use was restricted and would be more likely to feel guilty or depressed if they spent a long time online.

Young and Rodgers (1998a) examined the personality traits of individuals who were considered dependent on the Internet using the Sixteen Personality Factor Inventory (16 PF). Dependent users were found to rank highly in terms of self reliance (i.e., they did not feel a sense of alienation others feel when sitting alone, possibly because of the interactive functions of the Internet), emotional sensitivity and reactivity (i.e., they are drawn to
mental stimulation through endless databases and information available online), vigilance, low self-disclosure, and non-conformist characteristics (i.e., they might be drawn to the anonymity of the Internet). The findings of this study seem to suggest that specific personality traits may predispose individuals to develop PIU. Similar findings were obtained by Xuanhui and Gonggu (2001) examining the relationship between Internet addiction and the 16 PF.

Young and Rodgers (1998b) found Internet Dependents ranking high in self-reliance, but with strong preference for solitary activities, restricted social outlets, less socially conforming, and more emotionally reactive toward others. They in fact lead lonely, shy, afraid, or unattractive lives (Rheingold, 1993).

Internet use was associated with better outcomes for extraverts than for introverts. In particular, extraverts who used the Internet more reported decreased levels of loneliness (Kraut et al., 2001). A positive correlation between a personality trait (namely, neuroticism) and psychiatric morbidity has also been reported (Chen et al., 2001; Yang et al., 2003). Tuten and Bosnjak (2001) found that introversion was not associated with any form of web usage. They did, however, find that ‘need for cognition’ (Cacioppo et al., 1984; Cacioppo et al., 1996) was significantly related to use of the web for information, learning and education. Marcus and Schultz (2005) report that respondents to internet surveys were more agreeable and more open to experience, but they did not appear to be more conscientious.

Davis (2001), Caplan (2003) and van der Aa (2009) reported that introverted, low-agreeable, and emotional unstable adolescents are likely to end up in a vicious cycle in which adolescents who developed CIU use the Internet in a more and more excessive manner that leads to even higher levels of CIU which, in turn, worsens their problems more and more. Although
several previous studies have proposed that the subjects with Internet addiction had distinctive personality characteristics such as depressed, lonely, low in self-esteem, anxious, and bold as well as assertive (Young, 1998b; Beard and Wolf, 2001), Engelberg and Sjöberg (2004) concluded that frequent use of the Internet could not be linked to any specific personality dimension.

Persons who lack adequate self esteem appears to be a major personality factor cutting across many of the studies on the subject of excessive Internet Use (Young, 1996a; Bai, et al., 2000; Velea, 2003). Further, Internet addicts are more introverted and shy in face-to-face interactions (Koch and Pratarelli, 2004; Chak and Leung, 2004).

Other researchers have also reported a link between EPQ dimensions of personality and internet addiction. Cao and Su (2007) found that the Internet addiction group had significantly higher scores on the EPQ subscales of neuroticism, psychoticism, and lie than the control group. Huang et al. (2010) found that EPQ profiles of adolescents with IAD showed that Internet-dependent individuals tended to exhibit a significantly lower degree of extraversion and a significantly higher degree of psychoticism when compared with the control group.

2. INTERNET ADDICTION, MENTAL HEALTH, STRESS AND COPING

Young (1997a, 1997b) reported that individuals who are dissatisfied or upset by a particular area or multiple areas of their lives have an increased likelihood of developing Internet addiction because they don’t understand another way of coping.

The negative impacts of a stressful event are related to the person’s coping mechanisms which are used to adapt to it. Coping mechanisms play a
significant, mediating role in the relationship between stress and various health-related behaviors, including depression (Chi and Lin, 2005), suicidal behavior (Chagnon, 2007), symptoms of illness (Dolbier et al., 2007). With repeated exposure to stressful events, poor coping mechanisms can increase individual vulnerability to maladaptive behavior (Compas et al., 2001).

Shapira et al. (2000) reported that Problematic internet use may be associated with subjective distress, functional impairment and Axis I psychiatric disorders. A high comorbidity of Internet addiction with attention deficit and hyperactivity disorder (ADHD), depression, social anxiety and substance use disorders. There are several possible mechanisms explaining this association. A comorbid mental disorder may result in, contribute to, or exacerbate the symptoms of Internet addiction. Internet addiction may lead to, contribute to, or exacerbate the symptoms of various mental disorders. There may be underlying biological, psychological, and sociological mechanisms shared by Internet addiction and various mental disorders (Yen et al., 2007; Ko et al., 2008; Ko et al., 2009; Yen et al., 2009; Yen et al., 2010). Ko et al. (2009) in a two-year prospective study found that depression, ADHD, and social phobia predict the occurrence of Internet addiction.

Chou et al. (1999, 2000) found that some people seek pleasure on the Internet; therefore, it is possible that those who are depressed may be using the Internet to treat their depression with pleasure-seeking activities. Young and Rogers (1998) found that increased levels of depression are associated with those who become addicted to the Internet. In particular, low self-esteem, poor motivation, fear of rejection, and the need for approval— all commonly associated with depression— contributed to increased Internet use. Although their findings did not indicate a clear cause-and-effect relationship, Young and Rogers proposed that excessive time online might increase levels of social isolation, resulting in increased depression. Depression has been repeatedly
reported to be associated with Internet addiction for adolescents (Ha et al., 2006; Kim et al., 2006).

Nie (2001) and Nie et al. (2002) reported that the Internet may draw people away from family and friends, and in this sense the Internet would represent an escape motive. Further, Morahan- Martin (1999) warned that, turning to the Internet to escape the discomfort of everyday life can sometimes lead to Internet addiction.

Some studies also found an association of Internet addiction with hostility and aggressive behaviors (Ko et al., 2009). Yoo and colleagues (2004) also considered hyperactivity and attention deficit disorder symptoms as risk factors associated with Internet addiction. ADHD has been reported to be associated with Internet addiction for children (Yoo et al., 2004; Ha et al., 2006). Previous studies have also found that impulse control disorders (Shapira et al., 2000) and depression (Young and Rogers, 1998; Caplan, 2003, 2005) are found among those that abuse the Internet. On the contrary, McKenna and Bargh (2000) found that the average reported level of depression for participants after 2 years of using on the internet was less than it had been before using the internet.

3. INTERNET ADDICTION AND SHYNESS

Carducci and Zimbardo (1995) suggested that mediated communications media attract shyer individuals as a function of the increased sense of control held over mediated communications. Chak and Leung (2004) found that higher the tendency of one being addicted to the Internet, the shyer the person is, the less faith the person has, the firmer belief the person holds in the irresistible power of others, and the higher trust the person places on chance in determining his or her own course of life.
Some recent studies have found Internet use to be associated with increased local and distant social circles and face-to-face interactions with friends and family (Boneva et al., 2001; Kraut et al., 2002).

Social motives and attributes have also been linked to online communication. Some studies have found that those with low or unsatisfactory traditional social contacts use the Internet more frequently than others. Dunham et al. (1998) found that single mothers who were socially isolated used an online support group more frequently than those who were not socially isolated. However, they did not compare the single mothers to other groups of mothers, limiting generalizability. Papacharissi and Rubin (2000) found that those who felt less satisfied and valued in face-to-face communication used the Internet as an alternative to interpersonal communication. However, they noted that this relationship was eclipsed by the fact that individuals were more likely to use the Internet merely to fill time. In other research loneliness and social anxiety predicted the formation of online relationships (Leary, 1983; McKenna and Bargh, 2000).

The use of email and chat-rooms was not related to shyness or anxiety, suggesting that shyness or anxiety does not pose an obstacle to these Internet applications. Males were more likely to use the Internet for downloading entertainment. Shy males were more likely to use the Internet for recreation/leisure searches. Highly educated males were more likely to use the Internet for banking and paying bills. Although shyness or anxiety does not seem to modify the communicative functions of the Internet, it may influence people's use of other recreational applications (Scealy et al., 2002).

4. INTERNET ADDICTION AND LONELINESS

Morahan-Martin (1999) maintains that the Internet is custom tailored for the lonely. The Internet represents a safe, low-risk social environment for
lonely people. In line with these findings, other researchers have also pointed out that Internet addicts are more introverted and shy in face-to-face interactions (Koch and Pratarelli, 2004; Chak and Leung, 2004), and score higher on loneliness scales (Nalwa and Anand, 2003). Morahan-Martin and Schumacher (2000) found that Internet addicts report experiencing loneliness to a greater degree than non-addicts. Whitty and McLaughlin (2005) also reported a significant relationship between loneliness and use of the Internet. These studies support the notion put forth by previous researchers that there is a relationship between lonely people and the use of the Internet (Kraut et al., 1998). In contrast, McKenna et al. (2002) found that Internet use reduces feelings of loneliness by increasing users' social circles and helping them become less socially anxious.

5. INTERNET ADDICTION, PARENTAL BONDING, SATISFACTION WITH LIFE AND PERCEIVED SOCIAL SUPPORT

McKenna et al (2002) reported that those who feel more isolated and lonely use the Internet as a means of expressing their true selves and also develop close and meaningful relationships online.

Vas and Gombor (2008) reported that the higher the life satisfaction is, the less likely the students are using the Internet for companionship purposes. A higher life satisfaction predicted less frequent use of the Internet for the social interaction motive.

Lam et al. (2009), in a study involving 12 – 18 year old adolescents, found that self-reported dissatisfaction with one’s family and recent stressful events are both associated with addiction to the internet. The researchers also reported that students who were very dissatisfied with their family were nearly 2.5 times more likely than those who were satisfied with their family to be addicted to the internet.
GENDER DIFFERENCES IN INTERNET ADDICTION

The issue of gender in regard to the question of Internet use and its effects is an important one. Do men and women use the Internet differently and engage different Internet applications? Young (1998b) observed that men tend to seek out dominant activities or content online. Those interactive online games that rely particularly on power, dominance, control, and/or violence attract more men than women. Women, on the other hand, seek out close friendships and prefer anonymous communication in which they can hide their appearance(s). Virtual communities give women a sense of belonging and the ability to share their feelings and emotions in private and convenient ways. Whereas men tend to explore sexual fantasies online, women tend to look for romance in cyberspace. Young states that although it is not unusual for women to engage in random cybersex or cyber sex chat, they often prefer to form some type of relationship prior to the sexual chat. In Chen’s study (2000), hierarchical regression analysis indicated that time-management problems and compulsion symptoms are common predictors for both genders’ weekly time spent on the Internet. Shyness and withdrawal symptoms are predictive only for female college students, whereas experiences and tolerance symptoms are predictive only for males. Based on the aforementioned studies, tentative conclusions can be drawn that men use the Internet differently from women, and that men are more likely subject to Internet addiction.

Davis et al. (1999) found that men spent significantly more time online than women. On the other hand, Tsitsika et al. (2008) reported that the female gender was negatively associated with medium, high, and excessive internet use. However, other research findings show inconsistent results.

Gender-based studies in Internet use are for example showing that women are mainly appreciating the Internet for its communication possibilities.
with friends and family, and men are mainly appreciating the Internet for its broad possibilities, like information-seeking (Fallows, 2005). Overall, both men and women who are using the Internet are staying in more frequent contact with more people, since the Internet has made it possible for them to keep in contact with friends and family (Fallows, 2004). Literature is showing that there is hardly any difference between males and females when it comes to spending time on the Internet (Joiner et al., 2005), however there are differences between the genders in the purpose for accessing the Internet (Fortson et al., 2007). Just like Fallows (2005) showed, other researchers have also shown that females are using the Internet more for social interaction motives, while males are using it more for entertainment and information-seeking motives (Weiser, 2000). Similar results were found by Odell et al. (2000) and these results have also been replicated in cross-cultural studies (Fortson et al., 2007). Nowadays researchers agree that there is only a minor gender difference in Internet use among University students, although gender differences can still be detected in for example attitudes towards Internet use (Odell et al., 2000). Similar gender differences in the frequency and nature of computer and internet use are established in the current scientific literature (Madell and Muncer, 2004; Rees and Noyes, 2007).