Personality Traits, Social Anxiety Levels, and Stress Coping Mechanisms as predictors of Internet Use among Adults.

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Abstract

Internet use is an ever growing occurrence in society; the modern person has developed a reliance on the ease in which we can communicate with those near and far. According to statista.com, Ireland is the ninth highest user of the internet internationally. The aim of this study was to discover if certain personality traits, social anxiety and coping styles predict internet use using Internet Addiction Test (IAT) and the Facebook Intensity Scale. The participants (N=95, M=21, F=73, Other=1) took part in an online survey, the results showed that personality traits, social anxiety and coping styles did not significantly predict IAT although multiple regressions run showed that conscientiousness negatively predicted IAT, age did significantly negatively predict IAT, it was found that Facebook Intensity had no significant predictors, although extraversion was approaching significance with Facebook intensity. Discussion and limitations are discussed within the study.
Introduction

The twenty first century has become the era of the internet. According to statista.com in 2015, the internet was accessed by approximately 3.17 billion people around the globe daily, with Ireland coming in around the ninth highest user within Europe, (www.statista.com, 2015).

The Irish population have many uses for the internet on a daily basis, including communication through email (84%), online banking (64%) and social media. Social media use among those between 18-29 year olds is 88%, with a decrease as the population ages. The population do not have to use hard copies of books, newspapers and magazines if they do not desire, it can be accessed online, 48% of Irish people access reading material and news online (www.cso.ie). As the twenty first century continues, the modern person has become reliant on the ease in which we can communicate with each other, and the ease in which one can access information on the internet. According to the Irish Census of 2015, 77% of the population have access to fixed broadband within their homes and 38% have mobile broadband, these statistics were a rise of 2% and 1% respectfully, from the year previous, and an eighteen percent rise from 2009. These statistics are a clear sign of our ever advancing world of technology, and the world’s reliance on it.
Social media use is now a large part of everyday life for most internet users, social networking sites can be defined as, “a dedicated website or other application which enables users to communicate with each other by posting information, comments, messages, images…” (Oxford Dictionary; “Social Networking”,(2016).

Social media sites allow users to communicate thoughts, emotions, political views as well as images and video content with family and friends as well as strangers.

When we compare the population figures to that of internet use statistics gained from official websites such as the Irish Central Statistics Office and statista.com, it can be easily observed that many users are accessing social media daily. There are a wide variety of social media platforms for which people can access to communicate with others and share their own personality, some include Facebook, Twitter, Instagram, Snapchat, YouTube and some lesser known, but still popular sites like Pinterest and LinkedIn; each having records of millions of visits daily.

Facebook is the largest social media site visited by internet users, in December 2015, 1.04 billion people accessed their site, 83.6% of their visitors were outside the U.S.A and Canada (Facebook, 2016). These types of sites have become a main source of communication and expression of personality for many, some researchers say that the use of these sites have changed how many function with others face to face, (Pettijohn, LaPiene & Horting, 2012), others believe it has enhanced the way in which the world works today, that many of the relationships that would have been lost previously can be maintained, and that groups of people with similar interests can cohort together and discuss and share ideas. (Bargh, 2004) indeed the world has become a smaller place, a user can communicate with people from across the globe from the comfort of their bedroom, and have hundreds, if not thousands, and
perhaps millions of online site users seeing their personal content and opinions. This can be seen on many sites including Facebook, Instagram and YouTube; some of their users who are not famous in Hollywood have upwards of four million subscribers tuning in to see their content, many from the comfort of their own homes.

But what is it that makes a person decide to use the internet as an outlet, and why would many rather talk to their own friends, and stranger through an interface rather than face-to-face? Why do many of the population decide to shy away from social interactions, why would someone rather not interact with the people in the room?

In this study, personality traits, coping mechanisms, and social anxiety types will be looked at as predictors of internet use. Do personality types affect internet use? Do types of social anxiety or ways of coping with daily life affect how the internet is used; does dependence for the internet and social media occur because of these combined traits?

Many previous studies have been carried out to determine reasons why people use the internet the way they do, and why internet use for some, can become a pathological illness that causes “…academic failure, professional performance loss, social isolation, time distortion, breakdown of daily life routines, increased depression, loneliness, lying, decreased quality of life, increased anxiety, and psychiatric disorders” (Bozoglan, Demirer & Sahin.2013).

When does internet use become a pathological disorder? According to the American Society of Addiction Medicine, an addiction can be characterised “… by inability to consistently
abstain, impairment in behavioural control, craving, diminished recognition of significant problems with one’s behaviours and interpersonal relationships, and a dysfunctional emotional response…” (www.asam.org), the definition is a generalised overview of an addiction, and does not directly detail addiction to the internet, but some clear correlational outcomes are evident when compared to the definition of Bozoglan, Demirer and Sahin.

Problems with behavioural and interpersonal relationships can directly affect academic failure, social isolation and depression, among the others mentioned. The current study is to correlate the predictors with the criterion rather than seeks out the addictive behaviour of online use, it is a broad study that does not wish to define a person’s use as addictive, but rather investigate if a combination of attributes affects the intensity at which a person uses the internet.

Current Study

Previous research has not used personality traits, coping strategies and social anxiety together to predict internet use. The current research is based on the findings of previous studies and their results; the basis of this study is to determine if coping strategies, as a newer variables have any significance on the variables personality traits and social anxiety. Previous studies have more readily used the variables, personality traits and social anxiety as predictors of internet use. Personality is divided into five sub-categories that will be tested separately with social anxiety styles, which have five categories. Coping strategies contain fourteen styles, but for this study, the fourteen styles have been merged together into four distinct groups, the four categories are approach coping, altering consciousness, seeking support and avoidance coping. The four coping strategies have been used previously successfully in studies, and
The below studies are examples of previous work carried out in the field of internet use with relating variables used for the current study, questionnaires and survey questions used have been mentioned if relevant, and limitations have been included as they have impacted the data, and so, the results for consideration may not correlate to this research study. It can been seen that minimal research has been carried out on coping styles and internet use, this is the reason it was used to this study, how a person copes with daily stressors, can impact the reasons why and how they use the internet. This study wishes to seek if there was a relationship with how a person copes with stress, and their internet use. There are four coping styles used for this, and each will be tested against Internet Addictive Test, and Facebook Intensity Scale.

The Internet Addiction Scale was developed in 1998 by Dr Kimberly Young, it is a 20 item self-report scale to measure the presence and severity of internet dependency in adults (Young, K. IAT Manual). Young adapted the addiction criteria from the DSM-IV for pathological gambling, she also adapted her previous 8 item scale, “Young’s Internet Addiction Diagnostic Questionnaire (IADQ)” the scale is to test for a broad range on internet activities, and considers internet addiction as an impulse-control disorder (Young, K . IAT Manual). The Scale has been used successfully internationally and translated into multiple languages. The scale can be used by clinicians and paraprofessionals, in this case, the results were not used to diagnose a responder, but to see if there was a correlation with other variables, and no diagnoses was given.

Facebook Intensity Scale was created by Ellison et al (2007), it is used to measure Facebook usage beyond the duration of time spent on Facebook, and how frequent a person uses it. It incorporates emotionality, and how the site has become a part of a person’s everyday life. It
is an 8 question scale that uses a 5 point Likert scale; the final two questions use either a 10 point Likert scale, or an open ended style question. The questionnaire has been developed to ask more in depth questions for a more extensive answer, the current study chose not to find these details.

Literature Review

Many variables such as loneliness, life satisfaction, self-esteem, and stress have been tested along with the current studies predictor variables of personality, social anxiety and coping strategies and have been correlated with internet use scales.

Many of the studies mentioned have used multiple variables listed to determine if they affect internet use. The current study have used the general public for it participants; many of the studies discussed refer to undergraduate students, although this may mean differences in results, the use of the scales and research is valid.

Social Anxiety
Social anxiety, also known as social phobia, is a complex anxiety disorder that causes a person to experience persistent and overwhelming anxiety in most or in all their social interactions in daily life, including shopping, talking to strangers, and talking to unfamiliar people on the telephone. Many of the population experience some anxiety about certain social situations, but those who suffer with social anxiety fear most of their social experiences, they may be afraid to appear incompetent around others, perhaps say something embarrassing or have some physical symptoms like sweating or blushing. (“Social anxiety disorder.” 2015). Social anxiety is not a deficit of social skills; typically the person has a stronger than usual desire to make a good impression, but fear that their efforts are not acceptable, they can believe that the attention they receive is negative. Social anxiety can have disruptive impact on the life of a sufferer, it can impair social relationships, work and promotion, and so, affect their self-esteem and confidence can suffer greatly (“Social anxiety disorder.” 2015).

According to Social Anxiety Ireland approximately 13.7% of the Irish population have experienced social anxiety at some point in their life, this is one in eight. It can be assumed then, that those with social anxiety would prefer to have interactions that do not need to be face-to-face (Overview: Social Anxiety, 2015). Research has been carried out to determine if social anxiety has played a role in internet use.

Flemming, D. (2013) carried out an investigatory study of stress, social anxiety, personality, self-esteem and loneliness in relation to Facebook use. Flemming used the Facebook Intensity Scale (Ellison et.al 2007) to measure Facebook usage, and also used an abbreviated personality test called Big Five Inventory -10 adapted from Rammstedt and John (2007) similar to TIPI to determine personality traits. The results showed significant correlation between extraverted people and the number of Facebook friends, and that Facebook was used
to relieve stress, but also caused many participants stress, but no significance result was found between stress and Facebook use. The research also showed no significant correlation between loneliness or social anxiety and Facebook use. A limitation included that all participants were adults, and that social anxiety may be more prevalent in adolescents.

Abarado, M. L. (2015). “A Study of the Relationships between Self-esteem, Narcissism and Social Anxiety.” The study used the Facebook Intensity Scale on undergraduate students, the Rosenberg's self-esteem scale and the ICT scale, this scale measures the amount of time spent on the internet weekly. The study carried out by Abarado had no significant results, there were obvious limitations in the participant amount (n=69), there were no descriptive statistics used either including ages and gender. The results in this study did not support previous studies.

Madell & Muncer (2006). Carried out research to determine if socially shy persons are more likely to use the internet communication, they used social anxiety questionnaires, but they did not distribute internet use scales used by other researchers, general questions were issued, this may have been a limitation. The results found no significance between internet use and social shyness, or social anxiety. Some limitations mentioned were that shy participants may have not answers as honestly, or did not communicate online as they may have limited online contacts, another limitations suggests that shy people prefer to take part in other solitary activities that do not include intent use.

**Personality**

Personality plays a role in everyday life, it affects everything we do and contributes to the reasons why we do them; there are five widely accepted personality traits. Much research has been carried out to test their validity and reliability, McCrae & Costa carried out extensive
studies to test the five point personality instrument in 1987. Their results concluded that the five point personality scale was a significantly good and effective way of calculating personality. Earlier studies included; Norman (1967) and Goldberg (1981). Researchers have concluded that the five point personality inventory is inclusive, although there is still discussion regarding the final titles for each trait.

The five personality traits are Extroversion, Agreeableness, Conscientiousness, Neuroticism and Openness to new experiences. These core traits try to best explain how a person acts, it is self-diagnostic, much of the research including that of McCrae et al(1987) tested the self-reports against reports from members of the tester’s close circle to ensure if the inventory was valid. The personality traits can be summarised as;

Extroversion: A person who is considered high in extraversion is the life of the party, they are often happy and in great spirits, obvious by their talkative, high energy behaviour, a person who is lower in extraversion may be considered an introvert, a person who prefers solitary activities.

Agreeableness: This personality trait can be used to predict how kind a person is, how dependable and cooperative they are with others. They can be considered pro-social, compassionate; they are often altruistic and generous with their time. (Fagan, P. (2014, January 18). Are successful people agreeable?)

Conscientiousness; person with higher in this trait are said to high achievers, successful, actively avoid trouble making, and bad behaviour, they are forward thinking, and purposeful planners, they are not subject to erratic impulsive acts. A person who is considered lower in this trait may be undependable, unambitious and compulsive. (The ‘Big 5’ Aspects of Personality)
Neuroticism: a person who is high in neuroticism can experience higher emotions like anxiety, stress, anger and depression, they may respond to daily events more emotionally than those who score lower in this trait, lower scorers may be more stable and better able to cope with daily stressors. (The ‘Big 5’ Aspects of Personality)

Openness to experience: a person high in openness could be considered imaginative, creative people who seek out the beauty in life and abstract ideas such as art and sciences, a person who is lower in this trait can be considered narrow minded, they prefer conservative, familiar ideas that do not need abstract thinking or imagination. (The ‘Big 5’ Aspects of Personality)

Some of the traits have been linked to problematic internet use, Amichai-Hamburger & Vinitzky (2010) as cited by Özgüven and Mucan (2013) tested types of personality and internet use, and their results showed that women with high neuroticism and lower extraversion used the internet more.

Van der Aa et al (2009) carried out a similar study with adolescents, their results showed that introverted, low agreeable and emotionally less-stable adolescents were found to spend more time online. This study used the compulsive internet use scale (CIU), rather than the IAT used in this study.

Pettijohn et al (2012) researched if “relationships between Facebook Intensity, Friendship Contingent Self-Esteem, and Personality in U.S. College Students. The study used the Facebook Intensity Scale, and the TIPI scale as part of their research. Their results showed significant results in relation to Facebook intensity and friendship contingent self-esteem, those who valued friendship used Facebook more frequently, there was also a significant correlation between narcissism and the amount of Facebook friends a person had. These are
significant results and they show that person whose self-esteem is based on their friendships is online far more than those who base their self-esteem on other factors.

O’Hanlon, L. (2014). “Facebook use and its relationship with Personality Traits, Self-Esteem, and Internet Self-efficacy among college students.” The study used the full Big Five Scale with forty-four questions to determine personality type; the study also used the Facebook intensity scale, the Rosenberg’s self-esteem scale and Torkzadeh and Van Dyke’s (2001) Internet Self-Efficacy Scale. The results support previous studies that internet use is correlated to lower self-esteem, it also showed a significant positive correlation between certain personality traits, namely conscientiousness, neuroticism and openness to experience and Facebook use. The studies limitation occurred with sample size, it showed no significant result when a multiple regression was carried out.

Coping Mechanisms

Coping strategies are behavioural and psychological efforts that people make to tolerate, and conquer and minimise stressful events in daily life. Research into types of coping have given the COPE scale, and then due to the scales length, the Brief Cope scale was introduced by Carver, with fourteen sub-groups of types of coping which include self-distraction, disengagement, venting, positive reframing, humour and self-blame, among others, for the current study the fourteen coping scales were culminated into four appropriate sub-groups that classify each mechanism that is suited to a multiple regression. The four coping mechanisms used were approach coping, avoidance, seeking support and altering
consciousness, this scale has been used previous with nursing students (Gibbons, C. 2010) the subgroups easily identify the general coping mechanisms outlined in the fourteen groups, approach coping is actively facing the stressors, and seeking strategies to lessen the stress, avoidance coping as is sounds, the person does not wish to seek out way to decrease stress and avoids the issue, this may be a reason for high levels of internet use, a person can switch off and forget what really needs to be done in daily life. Altering consciousness is the use of alcohol and drugs to avoid coping, and seeking support is actively seeking out help from others, the final strategy may have an effect on internet use as many seek advice online, as well as from those around them not online. A person who used this strategy may become dependent on the internet and social media if who they seek support from are strangers or those not living close by them.

Deatherage, Servaty-Seib and Aksoz (2014) were interested in learning how the internet is used in relation to coping strategies in college student, they found that studies did not relate coping strategies to how people use the internet in everyday life and how that effects daily stresses; they used the problematic online behaviour scale, Brief COPE Scale, Online Motives Scales, this scale was an alteration of the drinking Motives Scale, and Perceived Stress Scale (PSS) to retrieve their results. The results concluded that there was a positive correlation between student’s motives to go online and their perceived level of stress, there was a negative correlation between going online for enhancement and perceived level of stress. Limitations mentioned included, using a convenient sample for their research, not correctly using scale calculations, they also suggest that the cross-sectional design may have been an issue in determining the causal inferences.
Hetzel-Riggin and Pritchard (2011) carried out a study called, “Predicting Problematic Internet Use in Men and Women: The Contributions of Psychological Distress, Coping Style, and Body Esteem,” the studied sought to determine if the three variables correlated with problematic internet use, the results gave a low PIU score for most participants, and so this is a limitation to the results, the findings from the experiment showed that there were gendered differences between coping reactions, psychological distress and body esteem that had not been tested for before. Problematic internet use for males was related to phobic anxiety, whereas female’s internet use related to depression. A recommendation to use samples with a more problematic internet use problem issues was advised, to ensure the results remain the same.

The literature review has given a general review of some of the studies that have been carried out to test for the current studies variables, but have left an opening in how the three predictor variables for this study alongside each other, with age, gender and education/work status can predict internet use using IAT and Facebook Intensity Scale. Below are the hypothesis put forward and the answered will be sought and reviewed in the discussion section.

**Hypothesis**

1. Is there a difference between males and females and their scores for IAT?
2. Is there a difference between males and females and their scores for Facebook Intensity Scale?
3. Is there a difference between age groups and their scores for IAT?
4. Is there a difference between age groups and their scores for Facebook Intensity Scale?

5. Is there a difference between education and work status and their scores for IAT?

6. Is there a difference between education and work status and their scores for Facebook Intensity Score?

7. Do personality traits, social anxiety and coping mechanisms predict IAT?

8. Do personality traits, social anxiety and coping mechanisms predict Facebook Intensity Scale?

Methodology

Participants
Participants (N=95) were conveniently recruited using social media websites such as Facebook, Twitter and Instagram, the link to the questionnaire was also posted to psychology based public pages and forums such as Reddit. The option to share the link with fellow peers was given through social media and email. Responders received no payment or benefit for their participation. There were a total of 71 females, 23 males and 1 other, all participants were over the age of eighteen, ages were grouped so no exact ages were taken.

**Design**

The research carried out was a convenient cross-sectional survey design using an online resource, Google Documents, to generate the questionnaire, with a snowball effect as participants were asked to share the link with peers through social media and email. The first three surveys, see Appendix 1, are to retrieve results for the predictor variables (PVs). The questionnaires test for personality traits, social anxiety levels and coping mechanisms. The criterion variable (CV) questionnaires that follow test for level of internet use using IAT, and Facebook Intensity Scale. Descriptive questions were asked at the beginning to attain age, gender and education level. The data collected from the questionnaires was analysed using SPSS version 22, descriptive statistics were used to determine frequencies within the data, grouping categories were used. Inferential statistics were used to retrieve statistical information from the data. Correlations were carried out to find relationships between the variables, independent t-tests, ANOVAs were used to find differences between the variables age, gender and education, and a multiple regression was used to test if the significant variables predict IAT and Facebook Intensity.

**Variables**
The criterion variables of Internet Addiction Scale and Facebook Intensity Scale were tested against the predictors,

i. age,

ii. gender,

iii. education/work status,

iv. personality traits,

v. social anxiety style, and

vi. Coping strategies.

The survey consisted of both quantitative survey scale questions, previously used and tested, and also included qualitative questions, see Appendix 1.

Materials

Materials used for this study were a password protected laptop; (Toshiba Satellite L755d-10V). The questionnaire platform used was Google Documents. The programs used for analysis were Microsoft Excel and SPSS version 22.

The surveys below were chosen for the current study as they have been used multiple times in peer reviewed research and produced consistently valid results.

1. Ten Item Personality Inventory (TIPI); Gosling, S. D., Rentfrow, P. J., & Swann, W. B. (2003). The ten item scale is used when researchers haven’t time to use the full scale, personality traits are not the main focus of the research, or researchers can accept a somewhat lesser psychometric test. The TIPI has been tested and successfully converged with the popular Big Five model in self-report, observer and peer reports; it had withstood test-retest reliability. The original study by Gosling
found low internal consistency’s though of “…low internal consistency estimates. Specifically, the Cronbach alphas were .68, .40, .50, .73, and .45 for the Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to Experience scales respectively…” (Gosling et al. 2003) these unusually low results have not stopped the ten item scale being used in English, but have translated and used internationally. It has ten questions and the responder can click on a 7 point Likert scale from 1; disagree strongly to 7; Agree strongly. The results are calculated as follows; recode questions 2, 4, 6, 8, 10, then add that to the corresponding personality trait, and find the average. The Tipi scale was used in the current study as the comprehensive scale was too long in combination with the other questionnaires used, a shorter version was needed to ensure a responder would complete the entire survey and submit a valid entry.

2. Brief COPE: Carver, C. S. (1997). This 28-item scale was designed to assess a broad range of coping responses from adults. It is rated by a four point Likert scale ranging from (1) “I haven’t been doing this at all” to (4) “I have been doing this a lot” to questions like, “I’ve been turning to work or other activities to take my mind off things” and “I’ve been using alcohol or other drugs to make myself feel better” The scoring contain fourteen subscales, for the analysis carried out currently, four grouped responses were used, they included (a) approach coping, (b) avoidance coping, (c) altering conscious and (d) seeking support, the groups were formulated by regrouping the fourteen subscales into suitable categories as discussed in the introduction. Validity and reliability were tested for and acceptable results were
found, Cronbach’s alpha values are as follows “Active coping (á=0.68), Planning (á=0.73), Positive Reframing (á=0.64), Acceptance (á=0.57), Humour (á=0.73), Using Emotional Support (á=0.71), Using Instrumental Support (á=0.64), Self-distraction (á=0.71), Denial (á=0.54), Venting (á=0.50), Behavioural disengagement (á=0.65) and Self-blame (á=0.69)” (Yusoff, Low, & Yip, 2010). Cronbach’s alpha was found for the four coping strategies and exceeded 0.8 for each factor and they were judged to have validity (Gibbons, Dempster, & Moutray. (2011).

3. Social Anxiety Questionnaire for Adults (SAQ-A30); Caballo, V. E., Salazar, I. C., Irurtia, M. J., Arias, B., and CISO-A Research Team. The questionnaire is used for persons over the ages of eighteen, to determine level of social anxiety, there are thirty questions with a five point Likert scale from; not as all/slight to 5; very high/extremely high in relation to feelings of level of unease, stress or nervousness to social situation questions like greeting someone and being ignored, having to ask a neighbour to stop making noise, speaking in public or asking someone attractive of the opposite sex for a date. The results of the survey are divided into five distinct social anxiety sub scales. Previous studies have used the scale and Cronbach’s alpha has also been very good for all five variables, Caballo study produced figures of “F1. Speaking in public/talking with people in authority=.84, F2. Interactions with the opposite sex=.86, F3. Assertive expression of annoyance, disgust, or displeasure=.80, F4. Criticism and embarrassment=.78, and F5=interactions with strangers=.82. Total SAQ-A30=.93.” (Caballo et al. 2012)
4. Facebook Intensity (FBI); Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The scale was formulated to test for more the frequency and duration of users of Facebook, it sought to test for the emotional aspects of using the site, there are ten questions answers on a five-point Likert scale, 1 = strongly disagree to 5 = strongly agree; answering questions like, Facebook is part of my everyday activity, I am proud to tell people I'm on Facebook and in the past week, on average, approximately how much time per day have you spent actively using Facebook. The score is calculated by adding the values together and finding the mean, the higher the score the higher a person has Facebook Intensity. the scale has been used in a multitude of studies, has passed test-retest quality controls, Cronbach’s alpha has been found to be .86 in Ellison et al “Connection strategies: Social capital implications of Facebook-enabled communication practices.”

5. Internet Addiction Test (IAT) was created by Dr Kimberly Young to measure internet use from mild to addiction, the scale has twenty questions on a 6 point Likert scale ranging from 0=not applicable to 5 = always, the responder was asked questions like, how often do you find that you stay online longer then you intended? And how often do you lose sleep due to late-night log ins? The questions run along the same vein of using the internet more than intended and how it affects a person’s overall quality of life. The scale has been used internationally, and has be tested, and re-tested and valid
results have been found. Cronbach’s alpha score have consistently shown moderate to high scores of reliability (Widyanto& McMurrn. 2004).

Ethical Considerations

This study has been ethically approved by Dublin Business School’s ethical board, participants were asked for consent, they were assured that their response was completely anonymous and voluntary, and they could opt out up until the point of submission. Helplines were also given to AWARE and Samaritans in case the study elicited any feelings that were distressing.
Procedure

The participants were asked to click the link “Internet Use Survey” through social media statuses, the social media platforms used were Facebook, Instagram, Twitter, Reddit, and email was also used. (see Appendix 1)

If the participant wished to voluntarily participate in the study, were over the age of eighteen, they could continue onto the Research brief page and click a box to give consent, consent was recorded.

The online research brief sheet gave a synopsis of the study, why it was being carried out; to determine whether personality traits, social anxiety and coping mechanisms are predictors of internet use. It also gives details of who was carrying out the research. It was ethically approved by Dublin Business Schools Ethics Board, and is completely anonymous.

It also explained that a participant could opt out at any moment up until they submitted the responses, and at that point there was no way their personal response could be removed. The brief also contained the email addresses of the researcher, supervisor, and contact details of AWARE and The Samaritans.

The participant then went through each page and answered the quantitative survey questions listed above. The qualitative questions were then asked for descriptive statistics as well as
seeking more information regarding questions asked within the questionnaires, but were too vague to gain much insight such as particular motivations for using social media, and how many hours a day does the participant spend actively on social media.

The participant was then invited to submit their responses online and thanked for carrying it out. The numbers again were displayed for AWARE and The Samaritans as well as the researchers email address.

The link was distributed online, and so there is no way to control who carried out the survey, or if it might be repeated by some twice, although it was expressed that it only be carried out once, the only way to ensure the survey was completed once per person, was to asked the responder to log into their google account. This may have hindered the response rate, and so it wasn’t required. Using the online link share, also means that factors such gender and age cannot be controlled, this could affect results.

Data was then exported from Google Documents to Excel and converted into scale variables for SPSS. The data then was checked for errors; and downloaded into SPSS for analysis.

**Data Analysis**

Descriptive statistics were carried out to obtain the frequency of age, gender and education/work status as they were categorised in groups. The Internet Addiction Scale (IAT) and Facebook Intensity Scale (F.I.S) were correlated with personality traits, social anxiety styles, and coping mechanisms for significance.

The independent-T tests were carried out to look for sex differences in each outcome measure, a one way ANOVA tested for differences between the I.A.T, and F.I.S on age and
education. Where significant results were found, those variables were then entered into a regression in blocks according to their groupings, the regression then was run to find the most parsimonious regression model.

Results

Descriptive Statistics

Descriptive statistics were computed with SPSS 22 to gain the mean and standard deviation of the number of respondents. Total number of respondents was, N= 95, males included 23 (24.2%), females were 71(74.7) and Other was 1 respondent (1.1%).

Below are the frequency tables for age, gender, and education and work type.

**Table 1. Frequency table of sex.**

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<th></th>
<th>Frequency</th>
<th>Percent</th>
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<tr>
<td>Females</td>
<td>71</td>
<td>74.7</td>
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<tr>
<td>Other</td>
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**Table 2. Frequency table of age**

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**Table 3. Frequency table of Education/Work**
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<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third level education</td>
<td>37</td>
<td>38.9</td>
</tr>
<tr>
<td>Full time work</td>
<td>39</td>
<td>41.1</td>
</tr>
<tr>
<td>Part time work</td>
<td>7</td>
<td>7.4</td>
</tr>
<tr>
<td>Unemployed</td>
<td>11</td>
<td>11.6</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>98.9</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>1.1</td>
</tr>
</tbody>
</table>

**Inferential Statistics**

**Correlations**

Pearson’s correlational analysis was carried out with all predictor variables to test for correlations with IAT, and Facebook Intensity Scale. The significant results were taken and run as a multiple Regression. Below is the correlational table showing both IAT AND FIS.

**Table 4.** Correlation Table for IAT, Facebook; Intensity Scale; Personality traits; Social Anxiety and Brief COPE.

<table>
<thead>
<tr>
<th></th>
<th>Internet Addiction Test</th>
<th>Facebook Intensity Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson’s Correlation Results Sig (2-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extraversion</td>
<td>.056</td>
<td>.059</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>.329</td>
<td>.339</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>.007</td>
<td>.275</td>
</tr>
<tr>
<td>Openness</td>
<td>.508</td>
<td>.294</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>Emotionally Stable</td>
<td>.007</td>
<td>.370</td>
</tr>
<tr>
<td>SA Strangers</td>
<td>.007</td>
<td>.863</td>
</tr>
<tr>
<td>SA Public Authority</td>
<td>.005</td>
<td>.265</td>
</tr>
<tr>
<td>SA Opposite Sex</td>
<td>.012</td>
<td>.699</td>
</tr>
<tr>
<td>SA Criticism /Embarrassment</td>
<td>.143</td>
<td>.951</td>
</tr>
<tr>
<td>SA Assertive</td>
<td>.041</td>
<td>.674</td>
</tr>
<tr>
<td>BC Approach Coping</td>
<td>.084</td>
<td>.739</td>
</tr>
<tr>
<td>BC Altering Conscious</td>
<td>.325</td>
<td>.699</td>
</tr>
<tr>
<td>BC Seeking Support</td>
<td>.005</td>
<td>.427</td>
</tr>
<tr>
<td>BC Avoidances Coping</td>
<td>.022</td>
<td>.268</td>
</tr>
</tbody>
</table>

*Sig > 0.05

**Gender**

An Independent samples t-test found that there was a statistically significant difference between IAT Result and males (M=29, SD=19.766) and females (M=25.323, SD=13.827) (t(26.322)=.794, P=.434, CL(95%)=-5.83-13.18).

Therefore the null can be rejected.
An independent samples t-test found there was no significant difference between Facebook Intensity Scale and males ($M=3.6, SD=.75$) and females ($M=3.5, SD=.68$) ($t(35)=.55, P=.588, (CL(95%) = .26-.46)$. Therefore the null can be accepted.

**Age**

A one way analysis of variance showed that the age groups have a significant effect on IAT. ($F(3,86)=4.77, p=.004$) more specifically Tukey HSD post hoc analyses highlighted that 18-25 years differed from 41+ year olds (mean difference = 15.31, $p=.003, CL(95%) = 3.97-26.67$) and 26-33 year olds differed from 41+ year olds, (mean difference = 11.85, $p=0.25, CL(95%) = 0.97-22.715$). Thus highlighting that higher ages significantly differs to younger ages in IAT results.

A one way analysis of variance show that age groups have no significant effect on Facebook Intensity Scale. ($F(86,3)=.37, p=.77$).

No Post-Hoc tests were run.

**Education**

A one way analysis of variance show that education has no significant effect on IAT ($F(85,3)=1.093, p=.36$).

No Post Hoc tests were carried out.

A one way analysis of variance show that education has no significant effect on Facebook Intensity Scale ($F(86,3)=.56, p=.617$).

No Post Hoc tests were carried out.
### Multiple Regression

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig</th>
<th>95% Confidence Intervals</th>
<th>Upper BD</th>
<th>Lower BD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conscientiousness</td>
<td>-1.077</td>
<td>.581</td>
<td>-.188</td>
<td>-1.85</td>
<td>.067</td>
<td>.934 1.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-3.602</td>
<td>1.471</td>
<td>-.260</td>
<td>2.44</td>
<td>.016</td>
<td>.849 1.179</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SA-Assertive</td>
<td>.410</td>
<td>.252</td>
<td>.167</td>
<td>1.625</td>
<td>.108</td>
<td>.906 1.104</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Multiple regression was used to test whether conscientiousness, age, social anxiety (assertive) Brief COPE (seeking support) were predictors of IAT. The results of the regression indicated that 16.6% of the variance. (R² = .116, f(4, 83) = 5.33, P = .001. It was found that age had a significantly predicts IAT. (β = -0.26, p = .001). The other predictors did not reach significance.

**Table 5. Regression Model outcomes for significant variables for IAT.**

<table>
<thead>
<tr>
<th>Dependent Variable: IAT.</th>
<th>R = .204 Adjusted R² = .166</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC-Seeking</td>
<td>.600</td>
</tr>
<tr>
<td></td>
<td>.602</td>
</tr>
<tr>
<td></td>
<td>.110</td>
</tr>
<tr>
<td></td>
<td>.996</td>
</tr>
<tr>
<td></td>
<td>.322</td>
</tr>
<tr>
<td></td>
<td>.785</td>
</tr>
<tr>
<td></td>
<td>1.275</td>
</tr>
</tbody>
</table>

**Discussion**

The aim of the current study was to establish if personality traits, social anxiety and coping strategies predict internet use, using the Internet Addiction Scale, and the Facebook Intensity Sale. Age, gender and education/work status were also tested with the above predictor variables. Each of the variables, personality, social anxiety and coping mechanisms were divided into multiple subgroups in accordance with the scale calculation criteria. The
criterion variables, Internet Addiction Scale and the Facebook Intensity Scale were individually correlated with the subgroup predictor variables to find significance within each group. The significant results were then put into the regression model to find significant predictor results.

Facebook Intensity Scale

The results showed there were no significance between Facebook Intensity Scale and the predictor variables, age, gender and education/work. Correlational analysis carried out found no significance with any of the criterion, Extraversion was approaching significance, but was not run in regression as no other correlations were made with any variable. No regression was run for Facebook Intensity Scale. Therefore the null can be accepted.

The research sought out has proved similar in that no significance was discovered when using the Facebook Intensity Scale. Flemming (2013) carried out a study using the Facebook Intensity Scale and Personality Scale, similar to the TIPI, among the variables, the results are similar, in that there were no significance between personality traits and social anxiety and Facebook Intensity, the researchers did not use an Internet Addiction Scale (IAT); a significant result related to extraversion and amount of friends a person had. The current study found an approaching correlation between extraversion and Facebook Intensity Scale. Abarado et al and Pettijohn et al (2012) found no significance using the Facebook Intensity Scale, Albardo’s original limitations showed that there respondents may have not been large enough, but perhaps it is a culmination of the scale and limited responses. Pettijohn similar to Flemming found a relation between personality and amount of Facebook Friends, but not to the over scale result.
The Facebook Intensity Scale may not have been appropriately used in the current study, as it seeks to determine more information than the duration and frequency of Facebook use, it seeks to find more of a psycho-social element that may not be as similar enough to the Internet Addiction Test that it was run with, its use in this study was because Facebook is a large part of the population’s daily lives; the current study found that approximately seven out of the ninety-five responders did not use Facebook daily. The results may have also come back non-significant due to other reasons, responders may not have answered the questions as honestly as they were asked to, as it may bring about a realisation that social media is a bigger part of their lives than expected, some may not have answered as accurately about time spent on Facebook, or do not realise the amount actually spent online.

**Internet Addiction Scale**

The Internet Addiction Scale results have more significant variables than the Facebook Intensity Scale, after running Independent t-tests for age and gender and an ANOVA for education, a Pearson’s correlation was carried out on Extraversion, Conscientiousness, Emotionally Stable, Social Anxiety Styles Subscales; Strangers, Public Authority, and Assertive, Brief COPE subscales; Seeking Support and Avoidance along with age and education were all significantly correlated with IAT. Regression analysis was carried out to find the most parsimonious variables. The results showed that Conscientiousness and age were negatively correlated to Internet Addiction Scale, whereas Seeking Support and being Assertive were positively correlated to IAT. As Conscientiousness and age decreased IAT increased, this would be expected, the younger population has grown up with the internet being a daily part of their lives, everything youth’s do links somehow to social media, whether that be communication with peers, event pages for social gathering. The older
population, 41+ would not have grown up with the internet being an intrinsic part of their lives. Although this perhaps is a stereotype, differences were found between two age groups and internet use, 18-25 year olds and 41+ years old had a significant difference.

A person characterised as high Conscientiousness who likes to ensure something they start is finished thoroughly, they like to follow the law, and do the right thing. A person with this personality trait may not become addicted to the internet as their priorities to commitments offline would be far more important than socialising and being distracted with social media, and activities online, this theory could be reversed to say, those who are lower in conscientiousness would have a higher link to internet addiction as their priorities to do the right thing, and finish tasks completely have less priority, and the internet may be an appealing place to escape, this can be seen in the current studies results. Amichai-Hamburger et al results showed that persons whose personality is high neuroticism and lower extraversion used the internet more than others; the current study did not find any significance between other personality traits and IAT. Although Young’s Internet Addiction Test has been used worldwide, and had been translated into multiple languages, the current study found it difficult to access studies which used the scale, this may have been because the studies required membership or payment to access the information, or researchers preferred to use other internet addiction scales, another reason it may have been difficult to attain studies is that they were not translated back into English after the scale was translated into the native language where it was used.

Qualitative results
The overall qualitative results sought to understand the frequency of what applications if any responders used, what motivates them to use the internet and if the responder cannot access the internet how does that make them feel? The results have shown data that supports the inferential statistics gained, but not what was expected before the research began, the number of apps used by responders show, that out of 95 participants 2 responders had no apps at all, 28 had all 5 apps, and 19 only owning 2 apps. The apps list included Facebook, Snapchat, Instagram, YouTube and Twitter, the aim was not to necessarily differentiate what applications were used, but rather to see subjectively how many accounts the user had the current research had expected to see a higher level of responders having more applications, reasons for lesser numbers may be due to the larger variation of age categories.

Another question asked to the responders was, “if you are unable to use your smart phone or access your social media sites, how does that make you feel?” The result showed again that responders felt fine if they could not access their social media, only 27 responders felt otherwise if they could not access their social media and internet. These results do correlate with the results gained from this study, the study did not show significance between the predictor variables and the criterion variables. This question may not have been answered honestly as many of the questions and the resulting data has shown, many people do not wish to admit that their reliance on the internet and social media immediately affects their entire life, there is merit in this opinion as there is an ever growing dependence on the internet, and an increasing need for research to go into the topic of internet addiction.

The final question asked is what motivated responders to use the internet, the answers were categorised into three groups, to socialise with peer/family, to avoid what they really need to be doing, and both; the results found that most responders said they solely use the internet for
socialising, 2 said solely for avoidance, and 14 agreed that they used the internet for both socialising and avoidance. Motivation to use the internet can be for many reason, for this current study two category types were used to identify reasons that were similar to IAT, and Facebook Intensity Scale. The results correlation to the findings, it was expected that if there were high levels of IAT, then we would expect to see high levels of avoidance, or higher levels of both. Socialising is a time consuming activity and so perhaps the wording of the question may have misled the responder, the question could have incorporating more specific use categories that allowed the responder give more in depth information about the motivations for internet use.

**Limitations**

There were some limitations to the study, the sample size was lower than the general recommended 200-300 participants, the current study was under a hundred participants; the smaller sample size may have not been enough to show significance for variables that have shown significance in previous research. A sample size of just one population may have gained a better result. Choosing to only carry out analysis on one age range may have given a better insight, rather than a smaller mix of multiple age ranges. The large difference in gender responses caused by convenient sampling may have affected the result, female responders considerable outweighed the male responders, this may be due to the female heavy population college course it was shared to, and also they may have been more willing to help out a peer. The question regarding education may have been answered inconsistently, as the way it was asked may have caused a responder to feel that being unemployed meant they had no university education. Buy the overall study was to determine if there was a difference between students and those not in any sort of education.
In relation to the questionnaires asked, the Brief COPE scale results were grouped into 4 possible outcome groups approach coping, avoidance coping, altering conscious and seeking support instead of the fourteen given by the author, the abbreviation in subscales may have meant that one of the potential subscales was missed out, although there was one significant Brief COPE scale that did withstand multiple regressions if fourteen had been used, there may have been a better outcome for coping styles and internet use.

**Strengths**

The current research study has contributed to results from previous studies, it has used previously validated scales to obtain data, although the research did not correspond to the previous research the scales have been validated on many occasions, the study is easily replicable, the questionnaire can be easily attained from the appendix of this study, or built upon using the scale links provided. It is cost effective, researchers used free software to build the questionnaire, and distributed it through a link on social media and email, and it was ethically supported, no one was misled or harmed during the study.

**Future research**

Future research should be carried out using the full scale questionnaires for personality to gain more comprehensive personality result. Coping mechanisms could be used in their entirety to pick up any significant coping mechanisms that weren’t picked up using the 4 subscales. Choosing a particular age group to test may also gain a more significant result; this could be carried out by seeking out an age group and using hard copies of the result to retrieve the data. Using one age group would be beneficial for future research as it could show specific traits of a younger or older population, it can be seen from the research results from this study that age was significant in all areas of IAT.
Conclusion

The study has been noteworthy it can be seen that age has a significantly predicted internet use, the younger the population the higher reliance on the internet. This is an important area of research for the younger population under the age of eighteen, especially with the growing issue of internet use internationally. Continuing research into the field of internet use and its contributing variables can help to understand the reasons behind why it has become the main source of enjoyment and communication among its users.
References


Information Society Statistics – Households 2015, Ireland, (16 December,2015), retrieved 26 January 2016 from:


O’Hanlon, L. (2014). Facebook use and its relationship with Personality Traits, Self-Esteem, and Internet Self-efficacy among college students


Appendices

Appendix 1.1

Internet Use Questionnaire

Hello, my name is Jennifer, I am a final year BA Psychology student at Dublin Business School. I would really appreciate if you would take part in my undergraduate research project, which is examining the correlation between personality traits, level of social anxiety and stress coping mechanisms and how it affects the use of the internet and social media. The use of the internet and social media sites has increased over the last decade, I wish to discover if personality traits, anxiety and coping mechanisms influence the amount of time people spend on the internet. Please answer the below questions honestly. All contributions are anonymous and will be stored on a password protected laptop, and will be deleted when the project has been completed. If you agree to continue, please tick the box below, you may opt out if you wish by exiting out of the survey, you can do this up to the end when you click submit, then it will not be possible to opt out as it is anonymous.

If you have any queries regarding the survey, please do not hesitate in contacting myself at:

, or my supervisor :

The following questionnaire has been approved by the DBS ethical committee. If you experience any upset in relation to the survey, here are some contact details for appropriate advice.

Samaritans phone: 116 123 or email jo@samaritans.org
Aware phone: 1890 303302 or email mailto:wecanhelp@aware.ie

Thank you!

Jennifer.

**Consent**

What is your gender? *Required
- Male
- Female
- Other

How old are you? *Required
- 18-25
- 26-33
- 34-41
- 41+

Are you currently in the Education System?
- Yes, I am in University/College
- Yes, I am in Further Education
- Yes, I am in Secondary School
- I am in Full Time Employment
- I am currently Unemployed

Do you own any internet/social media accessing device? eg. smartphones, tablets, laptops *Required
- Yes, I own at least one internet device.
- No, I do not own my own personal internet device.
Appendix 1.2

Here are a number of personality traits that may or may not apply to you. Please tick the box that corresponds to the statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

I see myself as;

1 = Disagree strongly
2 = Disagree moderately
3 = Disagree a little
4 = Neither agree nor disagree
5 = Agree a little
6 = Agree moderately
7 = Agree strongly

I see myself as:

1. _____ Extraverted, enthusiastic.
2. _____ Critical, quarrelsome.
3. _____ Dependable, self-disciplined.
4. _____ Anxious, easily upset.
5. _____ Open to new experiences, complex.
6. _____ Reserved, quiet.
7. _____ Sympathetic, warm.
8. _____ Disorganized, careless.
9. _____ Calm, emotionally stable.
10. _____ Conventional, uncreative
Scoring the TIPI

1. Recode the reverse-scored items (i.e., recode a 7 with a 1, a 6 with a 2, a 5 with a 3, etc.). The reverse scored items are 2, 4, 6, 8, & 10.

2. Take the AVERAGE of the two items (the standard item and the recoded reverse-scored item) that make up each scale.

Example using the Extraversion scale: A participant has scores of 5 on item 1 (Extraverted, enthusiastic) and 2 on item 6 (Reserved, quiet). First, recode the reverse-scored item (i.e., item 6), replacing the 2 with a 6. Second, take the average of the score for item 1 and the (recoded) score for item 6. So the TIPI Extraversion scale score would be: \((5 + 6)/2 = 5.5\)

Appendix 1.3

Brief COPE Scale

These next items deal with ways you've been coping with the stress in your life. The stress issue is the ‘it’ in some of the items! There are many ways to try to deal with problems. These items ask what you've been doing to cope with present stresses. Each item says something about a particular way of coping and please avoid answering on the basis of whether how you've been coping seems to be working or not—just whether or not you're doing it. Use these response choices and try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

Coding categories:

1 = I haven't been doing this at all
2 = I've been doing this a little bit
3 = I've been doing this a medium amount
4 = I've been doing this a lot

1. I've been turning to work or other activities to take my mind off things.
2. I've been concentrating my efforts on doing something about the situation I'm in.
3. I've been saying to myself "this isn't real."
4. I've been using alcohol or other drugs to make myself feel better.
5. I've been getting emotional support from others.
6. I've been giving up trying to deal with it.
7. I've been taking action to try to make the situation better.
8. I've been refusing to believe that it has happened.
9. I've been saying things to let my unpleasant feelings escape. *
10. I’ve been getting help and advice from other people.
11. I’ve been using alcohol or other drugs to help me get through it.
12. I’ve been trying to see it in a different light, to make it seem more positive.
13. I’ve been criticizing myself.

14. I’ve been trying to come up with a strategy about what to do.
15. I’ve been getting comfort and understanding from someone.
16. I’ve been giving up the attempt to cope.
17. I’ve been looking for something good in what is happening.
18. I’ve been making jokes about it.
19. I’ve been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.
20. I’ve been accepting the reality of the fact that it has happened.
21. I’ve been expressing my negative feelings.
22. I’ve been trying to find comfort in my religion or spiritual beliefs.
23. I’ve been trying to get advice or help from other people about what to do.
24. I’ve been learning to live with it.
25. I’ve been thinking hard about what steps to take.
26. I’ve been blaming myself for things that happened.
27. I’ve been praying or meditating.
28. I’ve been making fun of the situation.

Scoring:

<table>
<thead>
<tr>
<th>Approach coping</th>
<th>1, 2, 7, 12, 14, 17, 20, 24, 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoidance coping</td>
<td>3, 6, 8, 13, 16, 18, 19, 26, 28</td>
</tr>
<tr>
<td>Altering consciousness</td>
<td>4, 11, 22, 27</td>
</tr>
<tr>
<td>Seeking support</td>
<td>5, 10, 15, 21, 23</td>
</tr>
</tbody>
</table>

* Item 9 did not load on to any of the four types of coping and so was excluded.

Scales are computed as follows (with no reversals of coding):

Self-distraction, items 1 and 19
Active coping, items 2 and 7
Denial, items 3 and 8
Substance use, items 4 and 11
Use of emotional support, items 5 and 15
Use of instrumental support, items 10 and 23
Behavioral disengagement, items 6 and 16  
Venting, items 9 and 21  
Positive reframing, items 12 and 17  
Planning, items 14 and 25  
Humor, items 18 and 28  
Acceptance, items 20 and 24  
Religion, items 22 and 27  
Self-blame, items 13 and 26

Appendix 1.4

*SO*cial *a*Nxiety *Qu*estionnaire for *Ad*ults (SAQ-A30) (Caballo, Salazar, Irurtia, Arias, and CISO-A Research Team, 2010)

Below are a series of social situations that may or may not cause you UNEASE, STRESS or NERVOUSNESS. Please place an “X” on the number next to each social situation that best reflects your reaction, where "1" represents no unease, stress or nervousness and "5" represents very high or extreme unease stress, or nervousness.

If you have never experienced the situation described, please imagine what your level of UNEASE, STRESS, or NERVOUSNESS might be if you were in that situation, and rate how you imagine you would feel by placing an “X” on the corresponding number.

**LEVEL OF UNEASE, STRESS OR NERVOUSNESS**

- Not at all or very slight 1  
- Slight 2  
- Moderate 3  
- High 4  
- Very high or extremely high 5  

Please rate all the items and do so honestly; do not worry about your answer because there are no right or wrong ones. Thank you very much for your collaboration.

1. Greeting someone and being ignored 1 2 3 4 5  
2. Having to ask a neighbour to stop making noise 1 2 3 4 5  
3. Speaking in public 1 2 3 4 5  
4. Asking someone attractive of the opposite sex for a date 1 2 3 4 5  
5. Complaining to the waiter about my food 1 2 3 4 5  
6. Feeling watched by people of the opposite sex 1 2 3 4 5
7. Participating in a meeting with people in authority 1 2 3 4 5
8. Talking to someone who isn’t paying attention to what I am saying 1 2 3 4 5
9. Refusing when asked to do something I don’t like doing 1 2 3 4 5
10. Making new friends 1 2 3 4 5
11. Telling someone that they have hurt my feelings 1 2 3 4 5
12. Having to speak in class, at work, or in a meeting 1 2 3 4 5
13. Maintaining a conversation with someone I’ve just met 1 2 3 4 5
14. Expressing my annoyance to someone that is picking on me 1 2 3 4 5
15. Greeting each person at a social meeting when I don’t know most of them 1 2 3 4 5
16. Being teased in public 1 2 3 4 5
17. Talking to people I don’t know at a party or a meeting 1 2 3 4 5
18. Being asked a question in class by the teacher or by a superior in a meeting 1 2 3 4 5
19. Looking into the eyes of someone I have just met while we are talking 1 2 3 4 5
20. Being asked out by a person I am attracted to 1 2 3 4 5
21. Making a mistake in front of other people 1 2 3 4 5
22. Attending a social event where I know only one person 1 2 3 4 5
23. Starting a conversation with someone of the opposite sex that I like 1 2 3 4 5
24. Being reprimanded about something I have done wrong 1 2 3 4 5
25. While having dinner with colleagues, classmates or workmates, being asked to speak on behalf of the entire group 1 2 3 4 5
26. Telling someone that their behavior bothers me and asking them to stop 1 2 3 4 5
27. Asking someone I find attractive to dance 1 2 3 4 5
28. Being criticized 1 2 3 4 5
29. Talking to a superior or a person in authority 1 2 3 4 5
30. Telling someone I am attracted to that I would like to get to know them better 1 2 3 4 5

Scoring: each subgroup is scored as follows
Dimension 1: interaction with stranger: 10,13,15,17,19,22

Dimension 2: speaking in public places/authority:3712,18,25,29

Dimension 3: opposite sex:4,6,20,23,27,30

Dimension 4: criticism, embarrassment:18,21,24,28

Dimension 5: assertive: 2,59,11,14,26

Appendix 1.5


Scale Items

1. Facebook is part of my everyday activity
2. I am proud to tell people I'm on Facebook
3. Facebook has become part of my daily routine
4. I feel out of touch when I haven't logged onto Facebook for a while
5. I feel I am part of the Facebook community
6. I would be sorry if Facebook shut down
7. Approximately how many TOTAL Facebook friends do you have? *
8. In the past week, on average, approximately how much time PER DAY have you spent actively using Facebook?**

Scoring: The Facebook Intensity score is computed by calculating the mean of all of the items in the scale.
Appendix 1.6

Internet Addiction Test (IAT) (Young, K. 1998)

0 = Not Applicable
1 = Rarely
2 = Occasionally
3 = Frequently
4 = Often
5 = Always

1. ___ How often do you find that you stay online longer than you intended?
2. ___ How often do you neglect household chores to spend more time online?
3. ___ How often do you prefer the excitement of the Internet to intimacy with your partner?
4. ___ How often do you form new relationships with fellow online users?
5. ___ How often do others in your life complain to you about the amount of time you spend online?
6. ___ How often do your grades or school work suffer because of the amount of time you spend online?
7. ___ How often do you check your e-mail before something else that you need to do?
8. ___ How often does your job performance or productivity suffer because of the Internet?
9. ___ How often do you become defensive or secretive when anyone asks you what you do online?
10. ___ How often do you block out disturbing thoughts about your life with soothing thoughts of the Internet?
11. How often do you find yourself anticipating when you will go online again?

12. How often do you fear that life without the Internet would be boring, empty, and joyless?

13. How often do you snap, yell, or act annoyed if someone bothers you while you are online?

14. How often do you lose sleep due to late-night log-ins?

15. How often do you feel preoccupied with the Internet when off-line, or fantasize about being online?

16. How often do you find yourself saying “just a few more minutes” when online?

17. How often do you try to cut down the amount of time you spend online and fail?

18. How often do you try to hide how long you’ve been online?

19. How often do you choose to spend more time online over going out with others?

20. How often do you feel depressed, moody, or nervous when you are off-line, which goes away once you are back online?

*Score:* Results are calculated by adding all questions together:

**NONE 0 – 30 points**

MILD 31-49 points: You are an average online user. You may surf the Web a bit too long at times, but you have control over your usage.

MODERATE 50-79 points: You are experiencing occasional or frequent problems because of the Internet. You should consider their full impact on your life.

SEVERE 80-100 points: Your Internet usage is causing significant problems in your life. You should evaluate the impact of the Internet on your life and address the problems directly caused by your Internet usage.
General Internet and Social Media Questions

You are almost done! Just these few questions left! Thank you!

If you use social media, what "apps" do you use? *Required

- Facebook
- Twitter
- Snapchat
- Instagram
- YouTube
- I use all these "apps" daily
- I use none of these "apps" daily

If you are unable to use your smart phone or access your social media sites, how does it make you feel? *Required

- I feel fine, I can access them at a later stage
- I am nervous I will miss someone trying to contact me
- I feel angry that I cannot access my social media accounts
- Other: [Redacted]

What motivates you to use the Social Media? *Required

- To pass the time
- To socialise with peers
- To keep in contact with family abroad
- To avoid what I really should be doing in my daily life
- I feel like I am missing something if I stay offline for too long
- Other: 

[Redacted]