BIG FIVE PERSONALITY TRAITS AND INTERNET ADDICTION

A RELATIONSHIP BETWEEN PERSONALITY TRAITS AND INTERNET ADDICTION IN

A SAMPLE OF ALBANIAN UNIVERSITY STUDENTS

BY

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Abstract

The internet is one of the most important inventions that has brought the world together. It has changed the way we live, the way we work, and the way we learn. The internet takes a major part of our time, and research has shown that people struggle to find the balance between being online or offline. When this escalates to the level of addiction, we have a major problem. Even though this is now a worrying problem, just a few investigations have been made into understanding the relationship between internet addiction and its potential risk factors. This study aims to explore and understand the relationship between personality traits and internet addiction in a sample of Albanian university students. To date, the researcher could not identify any existing studies that examine internet addiction and personality traits among Albanian young adults. Students from a private university in Albania were asked to complete two questionnaires, that were designed (1) to measure the presence and severity of internet addiction and (2) to measure the big five personality traits. The conclusions provided by the data analysis indicated that internet addiction had a significant negative correlation with conscientiousness but there was no other significant correlation between internet addiction and the other Big Five personality traits.

Keywords: addiction, personality traits, internet, Big Five inventory, internet addiction test.

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Chapter I

Introduction

The world is developing fast, and technology is moving forward along with it. Technology now takes a major part of our time, it is used at school, work, and during our free time. It is everywhere with us 24/7. If someone was asked years ago what changes technology would bring in the following years, they would never have predicted its development. They would have never imagined how important it would become for human beings to communicate and share information online.

This study aims to understand the relationship between two variables: (a) the Big Five personality traits and (b) internet addiction. Throughout humanity, mental health professionals have faced a series of addictions, starting with addiction to alcohol, drugs and gambling. In the last decades, another type of addiction has appeared, which is gaining more and more ground every day. This addiction is now starting to appear in our society, regardless of age, race, culture, or gender. It is called internet addiction. Technology has brought great development for mankind, but along with the benefits come risks.

Personality traits are the characteristics that largely determine the behavior of an individual. Therefore, it is very important to study them to understand more about addictions. For years, researchers have had personality traits at the center of their studies, to discover more about the behavior of human beings. This research, will rely on personality traits, and try to understand if they play a role in the development of internet addiction.

During the research, it was noticed that many studies try to investigate the relationship between personality traits and internet addiction. Studies such as those by Çelik, Atak and Başal

(2012), Kayiş et al. (2016) Kuss, Griffiths and Binder (2013) Öztürk et al. (2015), and, Servidio (2014) were mainly with samples of individuals from developed countries. The researcher was not able to find many studies related to less developed countries except Jojo and Sundaramoorthy (2022) Rachubińska et al. (2021), where, the use of the internet is also at high levels.

The sample of this research is from a private Albanian university. This decision was made for several reasons. First, the literature review research found no study that focused on this population. Secondly, there were no studies from less developed countries. Thirdly, the researcher of this study is from Albania, and the contribution to this population has a spiritual value. Albania is a small country located in southeastern Europe. In recent decades, Albania has been moving forward in terms of economic development, thus bringing higher incomes for its citizens. The economy of Albania is based on three main sectors: service, agriculture, and industry. The economic income during the last 10 years has increased significantly in Albania, therefore directly affecting the increase in the level of well-being and employment of young people (Gegvataj, 2019). Regarding the demographic data, Albania has a population of 2,869,217, where 63.5% of the population lives in urban areas. The average age in Albanian is 36.4 years (Worldometer, 2023).

Below are the latest statistics about internet usage. Every day, more people are using the internet for their daily activities and, according to the statistics obtained in April 2022, the internet is widespread in every age group and gender, bringing the number to more than 5 billion users. This means that 63.1% of the population uses the internet. Going further, the statistics also revealed that from this total, 4.7 billion users are social media users (Petrosyan, 2022). The numbers have drastically changed in the past few years. Only 8 years ago, in 2014, there were only 3 billion users worldwide according to Internet World Stats (Kayiş et al., 2016).

Internet addiction is also known as computer addiction or compulsive internet use. This is a term used to refer to an individual's obsessive need to spend the major part of his or her time on the internet, in front of the screen of a computer, phone, or iPad, to the point where health, work, and relationships are allowed to suffer. Because of their addiction, people face problems filling their personal and professional obligations (Liu & Kuo, 2007). In some cases, they may experience withdrawal symptoms or negative emotions when their internet access is restricted (Liu & Kuo, 2007).

The other variable examined in this study is *personality*. Personality has aroused interest in people and has been seen as an important point from which more information can be extracted to understand the behavior of human beings. Usually, when we talk about someone's personality, we talk about what makes this individual different from other people, and what makes him unique. There are many theories and studies about personality, which often focus their attention on how we should categorize people (McCrae & Costa, 2003). Some people are neurotic, others are not, some are introverts and others are extroverts, and so on. Personality theorists are also interested in understanding the commonalities between people. For example, what do neurotic and healthy individuals have in common?

Among many famous personality trait theories, one of the most famous, and the one relied on during this research, is the Big Five personality traits model (McCrae & Costa, 2003). This model describes personality in terms of five broad factors: (1) extraversion, (2) agreeableness, (3) openness, (4) conscientiousness, and (5) neuroticism (Boeree, 2017). When it comes to studying the relationship between two or more variables with personality traits, the Big Five model is one of the first that comes to mind. It was McCrae and Costa in 1987 that created the Big Five personality trait model. The original theory on which the Big Five model is based is

the personality theory of D. W. Fiske (1949). McCrae & Costa's theory was created in 1987, it was simpler and more comprehensive. It consisted in only five personality traits that represent the broad areas of personality. To conclude, we can say that these are the five dimensions of personality (McCrae & Costa, 2003).

A study conducted by Flores and Siomos in 2014 revealed that addictive behaviors are related to personality traits (Floros & Siomos, 2014). According to a study by Rachubińska et al. in 2021, the most affected group age from internet addiction is teenagers. This study also shows another alarming data, it reveals that the primary reasons a person finds himself in front of the screen for longs hours is because of their desire to create another identity and to avoid communication face to face with other people (Rachubińska et al., 2021). Also, those people who show high levels of neuroticism, tend to use the internet more, as a way to avoid loneliness (Ross et al., 2009). Another study conducted in 2015 by Öztürk et al. revealed that the risk of developing internet addiction is highly associated with these two personality traits: openness and extraversion (Öztürk et al., 2015). According to Müller et al. (2013), people with higher scores on the internet addiction test spent more time using the internet and obtained lower scores for extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience (Müller et al., 2013). Kuss et al. (2014) indicated that greater openness to experiences and participation in online games increased the risk of developing internet addiction.

This study aims to explore the relationship between personality traits, based on the Big Five personality traits model, and internet addiction through research conducted at a private university in Albania.

Purpose of the study: Exploring and understanding the relationship between the Big Five personality traits and internet addiction in an Albania university sample.

Research question: Is there a relationship between the Big Five personality traits and internet addiction in a sample of Albanian university students?

Objectives of the study:

• Investigation of personality traits in an Albanian university sample.

• Investigation of internet addiction in the examined sample.

• Investigating the relationship between personality traits and internet addiction.

Hypothesis:

1. Internet addiction is negatively related to extraversion.

2. Internet addiction is negatively related to agreeableness.

3. Internet addiction is negatively related to conscientiousness.

4. Internet addiction is positively related to neuroticism.

5. Internet addiction is positively related to openness to experience.

Chapter II

Literature Review

What is Personality?

As mentioned earlier, personality is a characteristic set of thoughts, feelings, and behaviors that are unique to each individual (American Psychiatric Association, 2013). On the one hand, personality focuses on people's differences and, on the other hand, it is used to understand how different parts of an individual come together as a whole. As a result, it can be said that personality includes relatively stable aspects of behavior. A majority of researchers think that personality originates from within the individual (Erikson, 1963; Freud, 1949). Personality extends to a wide range of human behavior. Therefore, it affects everything related to a person, such as the mind, emotions, social and physical aspects. It is influenced by various factors such as biological, cultural, and social. Personality is also explained based on biological, cognitive, and psychoanalytical terms (Mikulincer et al., 2015).

Development of the Concept of Personality Throughout Human History

People started to give meaning to personality in the 4th century and the first writings are associated with Hippocrates (Millon, 2011). According to him, there were four fluids in the human body. He called them: phlegm, blood, yellow bile, and black bile. With these fluids that were associated with earth, water, fire, and air, centuries later, another great name of the time, Galen, presented nine types of temperament derived from the four senses of humor mentioned above (phlegm, blood, yellow bile, black bile). Among them, the *choleric temperament* was characterized by hot-bloodedness, the *sanguine temperament* encouraged the individual towards optimism, the *melancholic temperament*, characterized by a tendency towards sadness, and the *phlegmatic temperament*, conceived as an apathetic tendency. Also, some of the early

physiognomists tried to explain personality from the facial changes of individuals creating expressions. A similar approach was that of phrenology by Franz Gall (1835). He studied human skulls for a long time and stated that based on their formation, Gall could make descriptions of human characteristics. In the 19th century, it is worth mentioning Ribot, who tried to formulate personality types in a way analogous to botany. Among the proposed personalities were: *a humble character*: noted for excessive sensitivity and limited energy, and *a contemplative character*: sharp sensitivity and passive behavior. Among the other main categories was an apathetic, emotional, and calculating character. Many other prominent authors and figures made their contributions over the centuries, and although not all of their approaches turned out to be correct, they helped further personality research (Dumont, 2010; Millon, 2011).

  Sigmund Freud's Psychoanalytic Theory. One of the most famous and discussed theories from the 20th century to the present day is that of Sigmund Freud about personality (Boeree, 2017). Freud gave importance to the human unconscious and how unknown forces influence our behavior. Freud talked about the division of age stages. The stages are as follows:

1. **Oral stage** (0-18 months) – According to Freud, during this stage, pleasure is taken from the mouth by inhaling, biting, etc. Here two personalities can develop, which are: *oral-passive*, during this stage, a person tends to be more dependent on others, shows oral interest in pleasures such as smoking and eating. The second personality is *oral-aggressive*, and during this stage, people experience a desire to bite things; tend to be more aggressive with words, argumentative and sarcastic (Freud, 1997).

2. **Anal stage** (18 months-3/4 years) – Pleasure is taken from the anus. The two personalities that can be developed are *anal-releaser* (dirty, messy, cruel,

destructive, and prone to vandalism) and *anal-holder* (clean, demanding

perfection, stubborn, stingy) (Freud, 1997).

3. **Phallic stage** (3-4 to 6-7 years) - Pleasure is taken from the genitals. This is

    where the *complexes of Oedipus* (love for mother-hatred for father-fear of

    castration from father-identification with him) and *Electra* (love for father-hatred

    for mother-penis envy-identification with mother) occur. These can take different

    forms in people's approach persons of another sex or in their daily functioning

    (Freud, 1997).

4. **Latent period** (6/7 years - 12 years) - Freud believed that sexual impulse was

    suppressed during this period (Freud, 1997).

5. **The genital stage** - Begins around the age of 12 and represents the resurgence of

    sexual impulses (Freud, 1997).

In addition to the stages, Freud also made a structural division of the psyche: Id (pleasure

principle), Ego (reality principle), and Superego (morality principle). Continuing further with the

defense mechanisms, some of which are: repression, denial, introjection, projection,

rationalization, intellectualization, etc. These mechanisms help us cope better with stressful or

traumatic situations, but they can often weaken the human psyche (Boeree, 2017; Freud, 1997).

The Analytic Theory of Jung. Jung (2002) divided the human psyche into the personal

unconscious (refers to experiences and events that belong to individuals), the collective

unconscious (refers to the idea that a segment of the mind deep in the unconscious is genetically

inherited and not formed by personal experience), and the conscious. He emphasized the

importance of archetypes, which are inherited components. With archetypes, he gave meaning to

behaviors and dreams. Jung's theory includes other aspects. *The shadow* is the most primitive

and undesirable part of the personality that has been developed from animal instincts and carries

emotions, thoughts, and events repressed in the personal unconscious because they are negative

and shameful. The *persona* is the mask that is worn by taking on different social roles. The

anima and *animus* are the feminine characteristics of every man and the masculine

characteristics of every woman. Jung's approach was teleological, meaning that he believed

personality is shaped by one's past, as well as one's goals and plans for the future. Jung also

talks about three important principles of his theory. *The principle of opposites* states that ideas

and contradictory instincts exist together in one's psyche. *The principle of equivalence* states that

the libido invested in one aspect of the personality will appear elsewhere. Finally, *the principle*

of entropy states that the libido flows from a stronger component to a less intense component.

Jung divided character typology into functions and attitudes. According to him, there are four

ways of perceiving stimuli or functions: sensory, thinking, feeling, and intuition. Thus, the

dominant attitude is combined with the dominant function to create personality (Jung, 2002;

Jung, 2003).

     Adler's Individual Theory. Adler's theory was called Individual Psychology (Adler,

1956). The term individual expresses his belief in the uniqueness and individuality of each

human personality. Individual psychology pays very little attention to structures for the deeper

layers of the psyche. Adler emphasizes practical recommendations for dealing with our

problems, raising children, socializing with others, and improving the quality of life in general.

While psychoanalysis sees life as an inevitable struggle between our egoistic paths and the

demands of society, Adler argues that we have an innate potential to connect with others. This is

called *social interest* or *community feeling*. Although Adler emphasizes the importance of

teleology, he considers infancy and childhood to be a time of great importance. Our main goals

are usually formed during the first years of life, and it is difficult to deviate from them during adulthood. For Adler, the main goal of all human behavior is self-improvement or perfectionism. Everyone starts life as weak and helpless as a child, but we all have the predisposition to overcome this inferiority by mastering the environment that surrounds us. The healthy pursuit of superiority is driven by social interest and pays attention to the welfare of others. In contrast, the selfish pursuit of superiority and personal glory is distorted and pathological. If a child faces his weaknesses with optimism and courage and makes the necessary effort to compensate, then, this is healthy behavior. Also, Adler built his theory with other concepts on personality such as birth order in children, male protest, the inferiority of organs, parenting styles (authoritarian, neglectful, spoiled), lifestyle, etc. (Adler, 1956).

The Big Five Model of Personality

Paul Costa and Robert McCrae (McCrae & Costa, 2003) are an extremely productive research team who have worked together since they first met in Boston in 1975. Their work, 250 publications on personality traits and the Big Five personality model have had a profound effect on personality assessment. Costa and McCrae's research reflects their ongoing interest in the scientific study of personality and how people differ from one another (Goldberg, 1992).

Hans Eyesenck (1998) theorized that the important dimensions that correlate among people were Neuroticism, Extraversion, and Psychoticism. Costa and McCrae disagreed with the Psychoticism trait and added Openness as a primary personality dimension (McCrae & Costa, 2003). They then developed the N.E.O personality inventory (Neuroticism, Extraversion, Openness) for use in their research on personality stability in adults (McCrae & Costa, 2003). Both embarked on an extensive program of research that identified the five factors of personality traits. These traits were confirmed through a variety of assessment techniques including self-

reports, objective tests, and observer reports. Therefore, two more traits were added to the three main traits: Conscientiousness and Agreeableness (McCrae & Costa, 2003; Raad, 2000).

As mentioned, the five main traits are Openness to Experiences (O), Conscientiousness (C), Extraversion (E), Agreeableness (A), and Neuroticism (N). Below is the explanation for each feature:

1. Extraversion - the tendency to actively approach others. Extroverts are stimulated by the social world, like being the center of attention, and often take responsibility. They also like encouragement and tend to be optimistic, fun lovers, full of energy, and experience positive emotions. The opposite of extraversion is introversion. Introverts are less interested in interpersonal interactions and tend to be reserved and quiet. But their relative lack of interest in being with people doesn't mean they don't like them, or that they're socially anxious or depressed; they may just prefer to be alone (Barondes, 2012).

2. Agreeableness - the tendency to be altruistic, cooperative, and kind. People who have high agreeableness are considerate, compassionate, helpful, and ready to compromise. They like people and assume that everyone is good and trustworthy. People low in agreeableness are more egocentric than altruistic, more competitive than cooperative, and likely to be skeptical of others' intentions. They also tend to be cold, and antagonistic and do not respect the rights of others (Barondes, 2012).

3. Conscientiousness - the tendency to control impulses and persistently pursue goals. People with high conscientiousness are orderly, reliable, hardworking, capable, and punctual. They tend to plan things forward and think about the things that come next. They are more interested in long-term goals rather than short-term goals. People with low conscientiousness are more spontaneous, less constrained, less caring, and less

achievement-oriented. Although conscientiousness is evident in the performance of tasks, it also affects interpersonal relationships (Barondes, 2012).

4. Neuroticism - is the tendency to experience negative feelings, particularly in response to perceived social threats. People high in neuroticism are emotionally unstable, tend to get upset by minor threats or frustrations, and are often in a bad mood. They are prone to anxiety, depression, embarrassment, self-doubt, anger, and guilt. People with low neuroticism are emotionally stable and calm. But their freedom from negative feelings does not mean that they are particularly prone to positive feelings (Barondes, 2012).

5. Openness to Experiences - the tendency to be imaginative and enjoy novelty and variety. More open people tend to be artistic, non-conformist, intellectual, aware of their feelings, and delighted by new ideas. Low-open people prefer simplicity, familiar things. They tend to be conventional, conservative, and resistant to change. (Barondes, 2012).

Table 1 indicates the Big Five personality traits and describes the main characteristics of each of them. Along each of these traits are their opposites. The table indicates the main characteristics for all of them: extraversion vs introversion, agreeableness vs antagonism, conscientiousness vs disinhibition, neuroticism vs emotional stability and openness to experience vs closure. For example, if the individual is neurotic, this individual will probably show these personality characteristics: instability, unhappy the whole time, get irritable easily and is very insecure. If the individual is emotionally stable, he will probably show these characteristics: being very calm, stable, patient and confident. Below is a more detailed table for each of the Big Five personality traits.

Table 1

Traits of the Big Five Personality Model

	High	Low
Extroversion vs Introversion	Sociable, courageous, talkative, energetic	withdrawn, timid, silent, reserved, fearful
Agreeableness vs Antagonism	Kind, cooperative, trusting, generous	Rude, uncooperative, suspicious
Consciousness vs. Disinhibition	Reliable, practical, hardworking, organized, careful	Impractical, lazy, disorganized, negligent
Neuroticism vs Emotional Stability	Tense, unstable, unhappy, irritable, insecure	Calm, stable, contented, patient, confident
Openness to Experiences vs. Closure	Imaginative, curious, reflective, creative	No imagination, no curiosity, no reflection

Understanding Internet Addiction

There have always been debates and dilemmas among researchers, about the classification of internet addiction. Today, we have 2 main groups, the first group classifies internet addiction as an *addictive disorder* (Griffiths, 1999) while the second group classifies internet addiction as an *obsessive-compulsive disorder* (Sussman, 2005). The different approaches that researchers have about this addiction, can also be seen from the variety of terms that are used to refer to internet addiction. Many are familiar with the term compulsive computer use (Black, et al 1999), and others with pathological internet use (Davis, 2001). Other alternative terms are *problematic internet use* (Caplan, 2003) and *internet dependency* (Schere, 1997). Dependence on the Internet is one of the topics that has aroused a lot of interest in recent years. Not only the media but also researchers are interested in discovering what is hidden behind this

phenomenon. Currently, all age groups and genders are at risk, but a greater prevalence is observed in men, and it is reported that the greatest possibility for a person to become addicted to the internet is between 20 and 30 years old. The countries where this kind of addiction is more prevalent are closely related to those countries where people have more access to stay on the internet such as China, India, the United States, and Indonesia (Shaw & Black, 2008).

Subtypes of Internet Addiction

Young (2017) defines internet addiction as a broad word that encompasses a wide range of behaviors and impulse control issues. She goes even further by categorizing five subtypes of internet addiction. According to her, the first subtype is *cybersexual addiction*. Here, she mentions the addiction of individuals who use the internet to have as much access as possible to adult sites for cybersex and cyberporn. The second subtype mentioned by Young (2017) is, *addiction to cyber relationships*: this describes the excessive, above normal involvement of people in online relationships. The third one is *net compulsion*: which includes those individuals who become addicted to online games and shopping. They spend most of their day dealing with these activities, to the point where internet becomes problematic and affects not only their finances but also their psychological health. The fourth subgroup is *information overload*: where individuals spend a lot of time in front of the screen doing internet searches. The fifth and last subcategory includes *computer addiction*. This includes individuals who spend most of their time online, in front of a screen, playing online games (Young, 2017; Widyanto & Griffiths, 2006).

Internet Addiction and DSM-V

One of the biggest debates in recent years is precisely related to the non-inclusion of internet addiction in the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2013). Even though a large number of studies have been carried out and

have tried to explain the serious consequence that internet addiction can bring for humans,

internet addiction is not included in the DSM-V (American Psychiatric Association, 2013). The

reason for this decision is that a series of other standardized studies to prove that this addiction

meets all the criteria to be included in DSM-V has not yet been conducted. As mentioned at the

beginning of this study, internet addiction remains a phenomenon of the last few decades and for

this reason, greater attention should be paid to it (Young, 2015).

Studies About the Relationship Between Internet Addiction and Personality Traits

The following pages will summarize some of the most famous studies that investigate the

relationship between internet addiction and the Big Five personality traits. The first two studies

from Rachubińska et al. (2021) and Jojo and Sundaramoorthy (2022) are conducted in countries

that are considered developing countries. The rest are studies conducted with samples from

highly developed countries.

The first study is entitled by Rachubińska et al. (2021) had a sample of 556 people, all of

whom were women, over the age of 18. This study aimed to discover how the level of Internet

addiction was related to the five personality traits. The results showed that no relationship was

found between internet addiction and traits such as agreeableness and extraversion. However, a

positive relationship between internet addiction and neuroticism was found. Conscientiousness

was negatively associated with IA, while openness was determined to be conducive to IA

(Rachubińska et al., 2021).

The second study is by Jojo and Sundaramoorthy (2022) tries to identify what personality

traits are associated with individuals who are addicted to the internet, compare those individuals

who do not show addiction to the internet. This study goes even further, trying to understand

how accurate these predictors are of internet addiction. Part of this study included 421 students

from southern India, from 18 to 25 years of age. The results showed that those individuals who

were not addicted to the internet showed agreeableness and conscientiousness personality traits.

High levels of neuroticism were also found in people who were addicted to the internet. Traits

such as openness, agreeableness, and conscientiousness were negatively related to IA. The study

also touches two other important points, the first one is related to gender. Where it turns out that

men were more predisposed than women to be addicted to the internet. The second one is related

to the family style, where the members of the joint family were less dependent on the Internet

than those who were nuclear family members (Jojo & Sundaramoorthy, 2022).

The third study is by Rocco Servidio (2014) had a sample of 190 Italian students, 73

males and 117 females. Ages ranged from 19-26 years. The results showed that openness to

experience was positively related to internet addiction, while extraversion and agreeableness

were negatively related to internet addiction. The study goes further by finding that men were

more inclined than women to use the internet and that some activities like: connection period

(afternoon, evening and navigation of the students were predictors of internet addiction

(Servidio, 2014).

The fourth study published by Kayis et al. (2016) has as a purpose to investigate if there

is a significant relationship between personality traits and internet addiction. To carry out this

investigation, 12 studies were considered and 13 effect sizes were calculated. The results pointed

out that all the Big Five personality traits were important factors in understanding Internet

addiction. Openness, extraversion, conscientiousness, and agreeableness were found to be

negatively related to IA while only neuroticism was positively related to Internet addiction

(Kayiş et al., 2016).

The fifth study includes a large sample of 2257 students from an English university. The authors of this study are Kuss, Griffiths & Binder (2013). This study is not only interested in finding out which personality traits are related to Internet addiction but also in understanding what Internet activities make people more vulnerable to Internet addiction. The results of this study showed that when we are dealing with a combination of online games and openness to experience, addiction to the internet increases. The opposite happens when we have a combination of neuroticism and online shopping, this combination has been observed to decrease internet addiction. In addition to the above-mentioned results, this study also concluded that when we are dealing with high levels of neuroticism, low agreeableness, and frequent use of social networks and online shopping, the chances of being addicted to the Internet increase (Kuss et al., 2013).

The sixth study by Öztürk et al. (2015) had adolescents in its focus and tried to understand how internet addiction and personality traits were related to this age group. The adolescents who participated were from Turkey, and the sample contained 328 teenagers. This study concluded that such personality traits as extraversion and openness to experience were associated with a high risk of the possibility of developing internet addiction. The study also described that even though the adolescents had classified the time they spent on the Internet as normal, the time spent on the Internet was alarming and they were at risk of developing Internet addiction (Öztürk et al., 2015).

The last study is also conducted with a Turkish sample. It included 210 students who were enrolled in the computer programing department. The research was conducted by Çelik et al. (2012). The special feature of this study is that some of the students were registered to follow the online program while the rest were in person. The purpose of the study was to understand if

personality traits play any role in the appearance of Internet addiction. The data showed that

conscientiousness was the strongest predictor for internet addiction, while openness to

experience was the weakest. These results were valid for all students, regardless of whether they

followed the program online or in person (Çelik et al., 2012).

Chapter III

Methodology

Study Design

This study focuses on analyzing two variables, which are: (a) personality traits and (b) internet addiction. It is designed to investigate and understand the relationship between personality traits and internet addiction in a sample of Albanian university students. Internet addiction has been a phenomenon of the last decades and recent studies are turning their attention toward it. The study of this relationship can bring a wider understanding of addiction and its relationship to personality and can help in the therapeutic process in the future.

This study is designed to be correlational using self-report instruments. Correlational studies are common in psychological research and focus on finding relationships between variables. They have several advantages and some limitations. First, they are naturalistic, in the sense of measuring variables as they exist in the real world. Second, correlational studies are efficient in gathering a lot of data in a relatively short time. This often guarantees a large and representative sample for the population under consideration. However, the cause-and-effect relationship cannot be determined via a correlational methodology. Also, correlational studies do not consider intervening variables in the relationships found (Howwit & Cramer, 2011).

Given the variables under consideration, the study conducted was quantitative, using self-report instruments for the collection of primary data. The study was descriptive in focus, to investigate internet addiction and personality traits, as well as correlational, to see the relationship between them. Statistical analysis of the data was performed using the Statistical Package for Social Sciences (SPSS) program (Version 26).

Two instruments were used to collect data. The first one is the Big Five Inventory (Benet-Martinez & John, 1998; John at el., 1991; John at al., 2008) and the second one is the Internet Addiction Test Young (1998). These are self-report instruments and were administered in person. The instruments were administered in English, as the Albanian university offers classes only in English. The students are competent in writing, speaking, and reading English. There was no need for the instruments to be translated and adapted into Albanian.

Participants

Participants in this study were students from graduate and undergraduate programs from an Albanian university. To be part of this study, students had to be enrolled in one of the programs offered by the university, a bachelor's or master's program and they had to be between 18-30 years old. Participation in this study was voluntary and no reward was given.

Fifty-two students were part of this study: 10 males, 41 females, and one student who was identified as other. Forty-four students were from the bachelor program and nine students were from the master's program. As mentioned above, the administration of the instruments was done in person, as every class in Albania is in person. As the administration of the questionnaires took place one week after the exam season had ended, the number of students on campus was low, and consequently, the number of the sample is relatively small.

Instruments

Two instruments were used to collect data. The first is the Big Five Inventory (Benet-Martinez & John, 1998; John at el., 1991; John at al., 2008) and the second is the Internet Addiction Test (Young, 1998). Demographic data was collected. The demographic data collected were about age, gender, year of study, study program and direction for master's students, years online, and if they use the internet for work purposes.

Completing the questionnaires took 15 minutes in total. These questionnaires do not require any information that could reveal the student's identity. The data collected are used for the master's thesis study, only.

Participants were informed about the voluntary nature of completing the questionnaire and that they could withdraw from the study at any time. For the use of the two instruments, permission was also obtained from the responsible bodies that own the copyrights. The instruments were administered in English.

Big Five Inventory

The Big Five Inventory is the most accepted and widely used model of personality in psychological studies. The authors of this instrument are Oliver John and Verónica Benet-Martinez (1998). This instrument is divided into five factors that are: extraversion, neuroticism, agreeableness, conscientiousness, and openness to experiences (Goldberg, 1992).

The main purpose of this instrument is to identify these characteristics and how they differ from one individual to another, but also how each of these characteristics is related to another variable (Benet-Martínez & John 1998; McCrae, 2004). This instrument contains 44 statements that measure the aforementioned dimensions. The instrument for each statement has the distinguishing letter of the feature (e.g., E). Some of the statements are formulated negatively (reverse) which should be scored in reverse (changes 1 to 5, 2 to 4, 4 to 2, and 5 to 1). The opposite statements are 2, 6, 8, 9, 12, 18, 21, 23, 24, 27, 31, 34, 35, 37, 41, and 43. It is understood that for its administration the Likert scale from 1 to 5 is used. More precisely: *1 = Disagree strongly, 2 = Disagree a little, 3 = Neither agree nor disagree, 4= Agree a little, and 5 = Agree Strongly* (Benet-Martinez & John, 1998; John at el., 1991; John at al., 2008)

Internet Addiction Questionnaire

In 1998, Kimberly Young introduced a new form of measuring internet addiction, called the internet addiction test or otherwise known as IAT. This new form of measuring internet addiction contains 20 questions in total and comes as a variation of another test created by Young previously, which contained 8 questions. This previous version is known as the "Internet Addiction Diagnostic Questionnaire" abbreviated as IADQ. The new version of IAT is the most used of its kind globally, and has been translated into many different languages. An interesting fact shows that the IAT is the first questionnaire that is a validated test to be used in mental health settings and schools. It is very important to mention that this questionnaire involves questions that try to understand how the internet affects an individual's social, professional, and personal life/relationship. The three main characteristics measured by this test include (1) compulsivity, (2) escapism, and (3) dependency (Young, 2017).

Internet addiction test is a self-report questionnaire using a Likert scale where: *0 = Not Applicable / 1 = Rarely / 2 = Occasionally / 3 = Frequently / 4 = Often / 5 = Always*. This test has 100 points. As I mentioned above, each question is evaluated on a Likert scale with a number from 0-5. A total score from 0-30 indicates that the individual does not show problems related to internet addiction. A total score ranging from 31-49 indicates a mild level of internet addiction. A score range from 50-79 indicated a moderate presence of internet addiction. An individual who has a total score ranging from 80-100 shows a high addiction to the use of the internet (Young, 2017).

Procedures

For the use of the instruments, permission was obtained from the relevant copyright authorities. To use the "Internet Addiction Test", was provided a permission from the "Law

Offices of Robert L. Saunders P.C", he represents the Estate of Kimberly S. Young, who owns

the rights to the Center for Internet Addiction Recovery and her Internet Addiction Test. To use

the "Big Five Inventory", a brief description of the study, the purpose, and how the instrument is

intended to be used, was submitted at their online official page.

       The communication with the university in Albania was done through emails. To get

approval from the university in Albania, the Council of Ethics of the University required the

consent form, the questionaries, and a brief description of the study. Permission was also

obtained from the university in Albania to include its students in this study, to post flyers, and to

use the conference room on the research day. The next step was the review and approval of the

study by the Long Island University Institutional Review Board. Once the approval from the

Long Island University IRB was obtained the university in Albania was informed.

       To recruit students, flyers were used. One flyer was placed at the university cafeteria and

another one at the "Information Table Corner". The researcher chose to place the flyers at these

two locations because these are two of the locations that the students attend the most. The

students attend the cafeteria during their free time, meanwhile, through the "Information Table

Corner" they are informed about the new events that take place at the university. The flyers were

placed at these two locations from March 3rd till – March 10th. In the flyer, the students were

informed about the purpose of the study and other details like the location, eligibility, time,

procedure, and contact information. In this way, the students would have some prior information

about the study and they can choose voluntarily if they would like to participate or not. Each

student who wanted to participate was required to complete the two questionnaires on the

research day. The students who decide to participate were able to approach the conference room,

located on the -2 floor of the university on March 13th and 14th from 12:30 pm – 4 pm. The

informed consent approved by the IRB was delivered to the students in paper format, apart from

the questionnaire. This choice was made to preserve confidentiality. Once the students had

decided to participate, they were asked to check the "I agree to participate" box.

The students were informed how the data would be collected and that they are completely

confidential and would only be used for research purposes. No information that could reveal

their identity was included in the questionnaires. The participation was voluntary and the

students could withdraw at any time. The students were welcomed to contact the researcher if

they have any further questions related to the study. The informed consent form includes the

contact information of the researcher, faculty advisor, LIU, and IRB representatives.

Chapter IV

Data Analysis

The collected data were entered into the SPSS program (Version 26).

Reliability Analysis

Table 2 shows the reliability coefficients for the instruments that were used in the study. Reliability was measured using Cronbach's α coefficient. For the first instrument: the Internet Addiction Test (Young, 1998), the reliability coefficient was α = .92. The second instrument: the Big Five Inventory (Benet-Martinez & John, 1998; John at el., 1991; John at al., 2008) resulted in a reliability coefficient α = .85. For both instruments, it can be said that they had high reliability.

Table 2

The Reliability Coefficients of the Instruments

Instruments	Cronbach α
Internet Addiction Test	α = .92
Big Five Inventory	α = .85

Demographic Data

The average age of the students that were participants in this study was 20.52 ($N = 52$, Range: 18 – 30 years old, $M = 20.52$, $SD = 2.45$). From 52 participants, 10 were male (19.2%), 41 were female (78.8%), and 1 was identified as other (1.9%). In the tables below, respectively Tables 3, 4, 5 and 6 are the data collected from participants regarding sex, study program, study year, and internet usage are shown in Tables 3, 4, 5, and 6.

Table 3

Demographic Data Regarding Sex, Study Program, and Study Year

	Frequencies	Percent
Sex		
Male	10	19.2
Female	41	78.7
Other	1	1.9
Study Program		
Bachelor	44	84.6
Master	8	15.4
Study Year		
First	10	19.2
Second	20	38.5
Third	11	21.2
Fourth	8	15.4
Fifth	0	0

Table 4

Internet Usage for Work Purposes

Uses the Internet for Work	Frequency	Percent
Yes	51	98.1
No	1	1.9

Table 5

Study Program of Every Student, Bachelors and Master's Program

Study Program	Frequency	Percent
Business Informatics	4	7.7
Architecture	1	1.9
Business Administration	6	11.5
Computer Science	4	7.6
Design	1	1.9
Economic	1	1.9
Finance	7	13.5
Forensic Psychology	1	1.9
International Commercial Law	3	5.7
International Relations	1	1.9
IT	3	5.8
Management	2	3.8
Marketing	5	9.6
Pharmacy	2	3.8
Psychology	10	19.2
Social Sciences	1	1.9

Table 5 indicates the study program for each student. From the results it can be seen that the major number of students that participated in this study is from the psychology, bachelor students. This program had a representation of 10 students. The programs with less students were from architecture, design, economic, forensic psychology, international relations and social science. Each of these programs has a representation of 1 student.

Table 6

The Years Students Have Been Using Internet

Years Online	Frequency	Percent
0	9	17.3
1	8	15.4
2	12	23.1
3	5	9.6
4	1	1.9
5	3	5.8
6	4	7.7
7	2	3.8
8	2	3.8
9	1	1.9
10	3	5.8
12	1	1.9
13	1	1.9

Results of data analysis

Internet Addiction

Table 7 shows the descriptive data of internet addiction. The histogram and the table show normal distribution. The mean of internet addiction was 45.69 ($SD = 19.34$).

Table 7

Descriptive Data of Internet Addiction

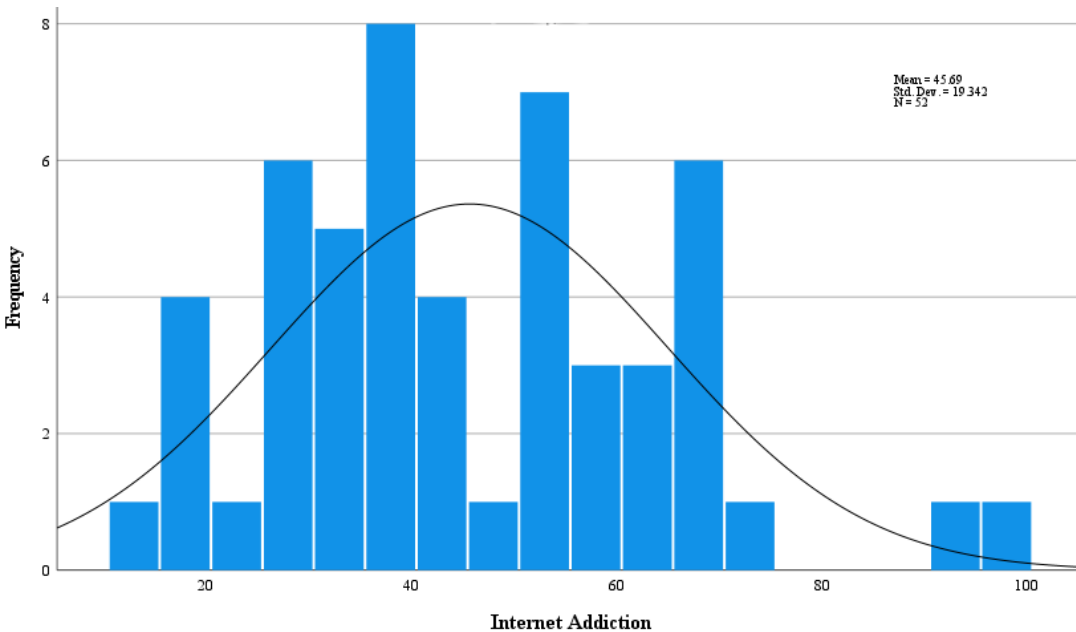|	Mean	Minimum	Maximum	Skewness	Kurtosis	*SD*
Internet Addiction Test	45.69	13	100	.56	.27	19.34

Figure 1

Normal Distribution of Internet Addiction

Personality traits

Table 8 shows the descriptive data of personality traits. The results indicated that openness to experience had the highest mean ($M = 3.82$; $SD = .70$) meanwhile extraversion had the lowest mean ($M = 3.09$; $SD = .55$). Means of Agreeableness ($M = 3.63$; $SD = .57$), Conscientiusness ($M = 3.31$; $SD = .53$) and Neuroticism ($M = 3.12$; $SD = .69$) also were above average. In the figures below, respectively Figures 2,3,4,5, and 6 indicate the distribution of data for each personality trait: extraversion, agreeableness, conscientiousness, neuroticism and openness to experience.

Table 8

Descriptive Data of Personality Traits

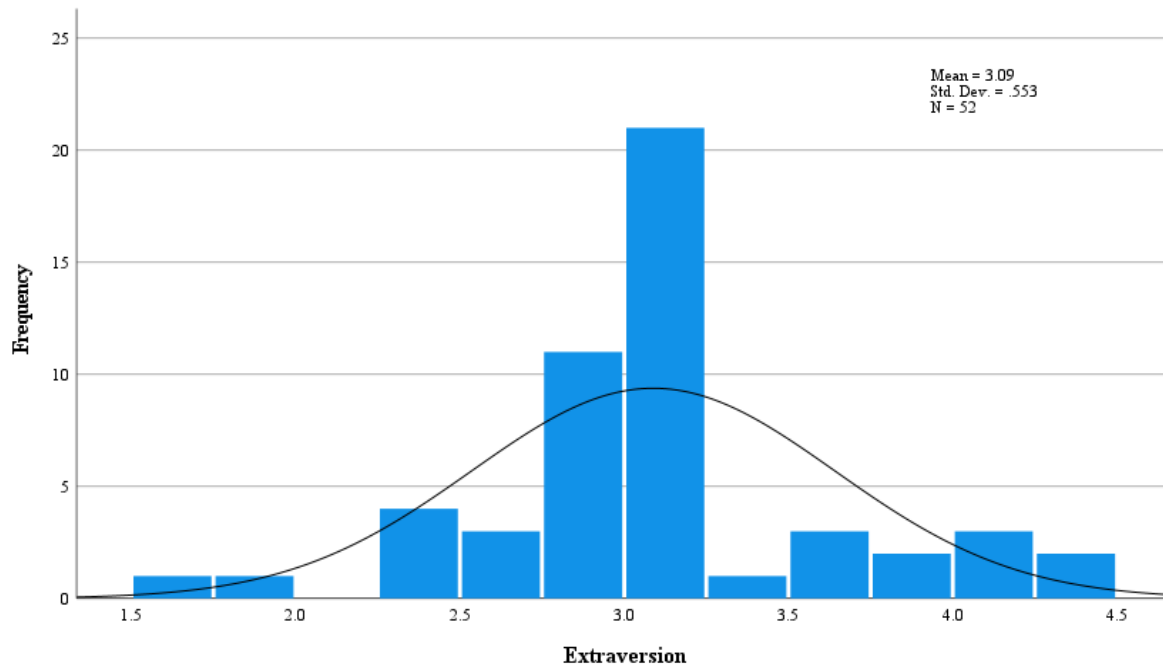|	Mean	Skewness	Kurtosis	SD
Extraversion	3.09	.19	.76	.55
Agreeableness	3.63	.1	-.76	.57
Conscientiousness	3.31	1.21	1.21	.53
Neuroticism	3.12	.64	.73	.69
Openness	3.82	-.38	-.78	.70

Figure 2

The Distribution of Data for Extraversion

Figure 3

The Distribution of Data for Agreeableness
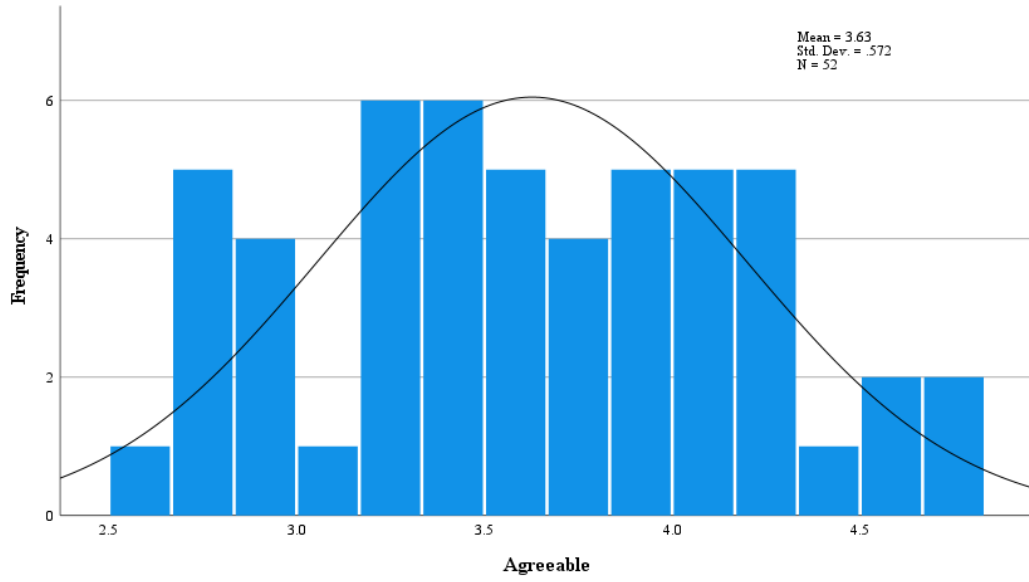
Figure 4

The Distribution of Data for Conscientiousness
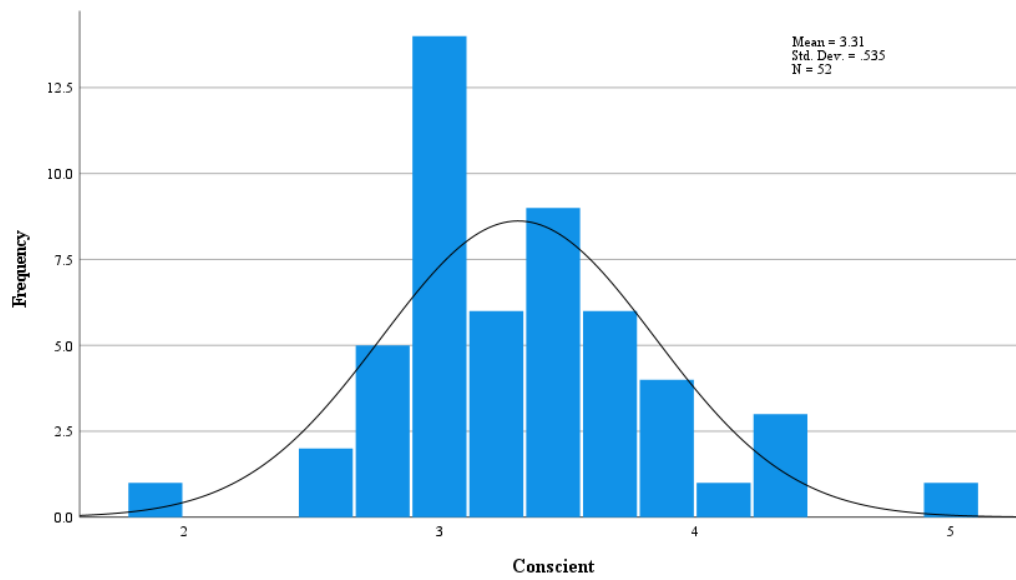
Figure 5

The Distribution of Data for Neuroticism
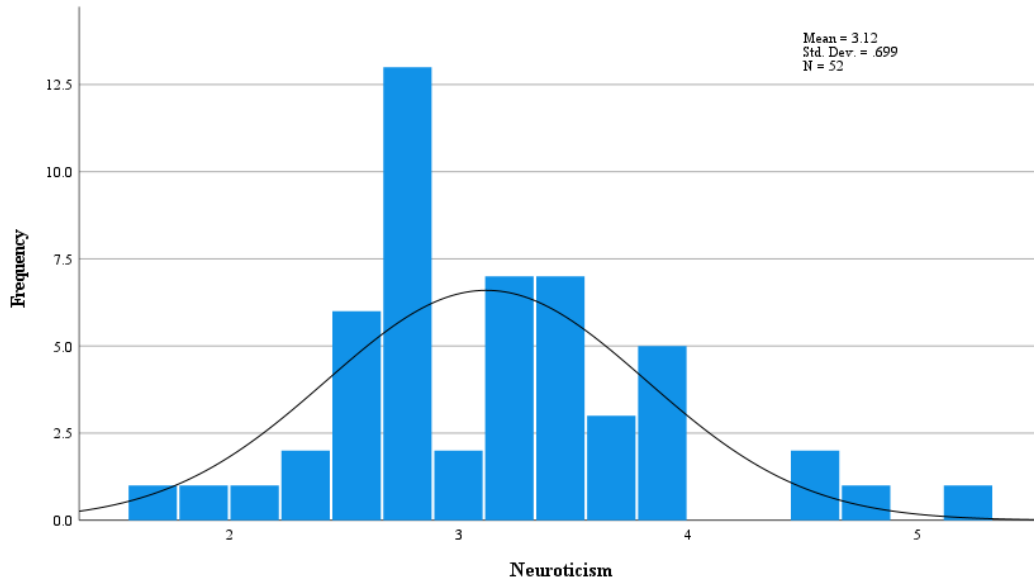
Figure 6

The Distribution of Data for Openness
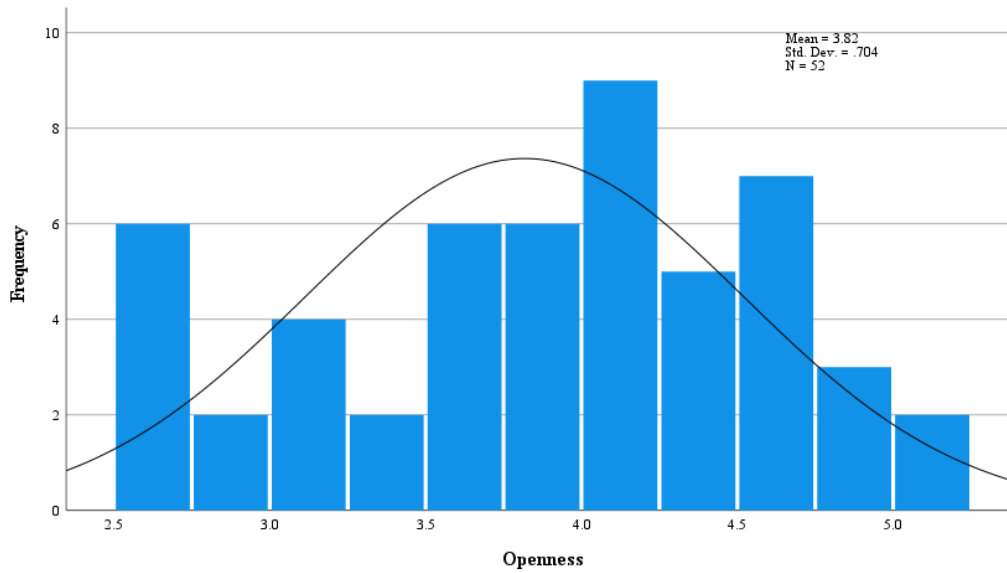
Correlational analyses

Table 9 shows the correlational matrix between internet addiction and personality traits. Internet addiction had a significant negative correlation with the personality trait of Conscientiousness ($r = -.30$, $p < .05$). There was no other significant correlation between internet addiction and the other personality traits: Extraversion ($r = -.02$, $p > .05$), Agreeableness ($r = -.12$, $p > .05$), Neuroticism ($r = .16$, $p > .05$) and Openness ($r = -.05$, $p > .05$).

Table 9

The Correlational Matrix Between Internet Addiction and Personality Traits.

	1.	2.	3.	4.	5.
1. Internet Addiction					
2. Extraversion	-.02				
3. Agreeableness	-.12	.27*			
4. Conscientiousness	-.30*	.31*	.35**		
5. Neuroticism	.16	-.37**	.12	-.27*	
6. Openness	-.05	.11	.37*	.29*	.11

*Note: *p<.05. **p<.01*

Chapter V

Discussion and Limitations

This study aimed to understand the relationship between two variables: (a) the Big Five personality traits and (b) internet addiction in a sample of Albanian university students. This is probably the first study of its kind with an Albanian population that tries to investigate the relationship between the two variables.

The research question was: Is there a relationship between the Big Five personality traits and internet addiction in a sample of Albanian university students? In response to this question, it can be said that there is a correlational relationship between the personality trait of conscientiousness and internet addiction. The correlational analyses indicated that internet addiction had a significant negative correlation with the personality trait of conscientiousness ($r = -.30, p < .05$). There was no other significant correlation between internet addiction and the four other personality traits.

Therefore, we can say that the only hypothesis that was supported was hypothesis number three. This hypothesis stated that internet addiction is negatively related to conscientiousness. The other four hypotheses were not supported, there were no significant relationships between internet addiction and the other four personality traits: extraversion ($r = -.02, p > .05$), agreeableness ($r = -.12, p > .05$), neuroticism ($r = .16, p > .05$) and openness ($r = -.05, p > .05$).

Studies conducted by Celik et al. (2012), Jojo and Sundaramoorthy (2022) Kayis et al. (2016) and Rachibinkska et al. (2021) share the same finding that conscientiousness is negatively related to internet addiction.

Data on internet addiction also show that the population in Albania is starting to use the internet more and more every day. As seen in Table 7 the average of the accumulated points is 45.69, this mean indicates the presence of a mild level of internet addiction in the sample.

This study has a small sample, compared to the other studies described in the literature review section. The studies above have samples of 150 and more. A similarity between the current study and the literature review is the inclusion of students in the study. This is likely because including students in research is more convenient for the researchers.

Another point worthy of mention concerns the personality traits of the sample. The results of the data analysis regarding personality traits showed that openness to experience was more present, with an average of $M = 3.82$ and $SD = .70$. Extraversion had the lowest mean $M = 3.09$ and $SD = .55$. Meanwhile, the other three traits were also above average, respectively agreeableness ($M = 3.63$; $SD = .57$), conscientiousness ($M = 3.31$; $DS = .53$) and neuroticism ($M= 3.12$; $SD = .69$). The results of the corelational anlyses indicate that there is a significant negative correlation with the personality trait of conscientiousness. There is no other significant correlation between internet addiction and the four other personality traits.

The results of the data analysis regarding internet addiction show that the average points collected by the sample were 45.69. This mean indicates the presence of a mild level of internet addiction in the sample. This interpretation was made based on Young's scoring scale for the internet addiction test. Fortunately, these results do not show alarming numbers, taking into consideration how important the use of the internet is in our daily lives. These numbers should not be neglected as they may tend to increase in the future. The world we live in tends to progress, and therefore the internet will continue to be more and more present in people's lives. For this reason, the researchers should keep an eye on these topics.

It is worth mentioning the fact that 98.1% of the sample uses the internet for work, where 51 students answered "YES" to the question if they use the internet for work. Only one student answered "NO". This result once again confirms what is mentioned above in the review of the literature, which shows the widespread use of the internet in daily life. In the literature review is also mentioned that men are more prone to the internet than women, but in this study, we cannot come up with an accurate result since there is an unequal representation in terms of gender.

In this research, the sample includes students ranging from 18-30 years old, also the studies in the literature review include students from this group age, indicating one more time that this is the area of interest for them. We can also say thay this is the group age that uses more internet for their daily activities. The sample of this study has a special characteristic because it includes students from different university programs, both bachelor and master, making this sample more representative.

There are also several limitations to this study. The first limitation is related to the number of the sample. The number of students participating in this study was relatively small, only 52 students. This small sample limits generalizations of the results of the study. Another limitation is related to the gender of the participants. It is noted that from this sample of 52 students, 41 were women, 10 were men, and one was identified as other. Another limitation is that the sample used for this study is convenient, we consider this as a limitation because convenient sample lacks clear generalizability.

It would have been very helpful to have other studies with an Albanian sample that try to investigate the relationship between the two variables. In this way, it would be possible to compare the results from the current study with other findings. Since these data are missing, studies of this nature should be done in the future to monitor this relationship. Looking at the

developments in Albania, and the widespread use of the internet, it is assumed that internet addiction may increase.

The last limitation is related to one of the questions on the demographic data page. The question was about the years of online use. The purpose of the question was to understand how many years the participants have been using the internet in their daily life for different purposes. But, based on the results, after data analyzing looks like this question did not measure what it was meant to measure. Because of Covid-19, the classes were remote during the last few years, and that is why it is believed that some of the students answered this question based on how many years they had remote learning. For this reason, data collected from this question may not be meaningful.

Major technological developments have brought the world many steps forward, and the internet remains one of the most important inventions that has fundamentally changed the dynamics of life. The same is happening in Albania where the internet is not a luxury asset anymore; it is a necessity. It is used massively in work environments, in schools and at home. Since this phenomenon is so present in daily life, the interest to study it is increasing. During the research, it was noticed that one of the most important factors impacting the development of internet addiction was the personality trait of conscientiousness, for this reason, this study is focused on the relationship between these two variables. In this study, it was observed that internet addiction had a significant negative correlation with the personality trait of conscientiousness: as internet addiction increase, conscientiousness decreases. To explain it more clearly, if an individual has a high average score on internet addiction, this individual is likely to be less aware. The opposite happens is this individual has a low average score on internet addiction. In this case he is likely to be more aware.

There was no other significant correlation between internet addiction and the other four personality traits: extraversion, agreeableness, neuroticism, and openness. These conclusions are limited by the small number of the sample, there were only 52 students. Therefore, it is recommended to have a large sample for future research. On the other hand, the personality trait that dominated more was openness. Meaning that the sample of students has dominant traits like imagination, open-mindedness, creativity, and curiosity. If we interpret these results in the Albanian context, we can understand that the youth in Albania tend to be more open to new experiences and curious to explore more of the world around them. Also, Albania is a developing country that is looking forward to being a part of Western culture that is why is it assumed that the level of internet addiction may increase in the future. Extraversion showed the smallest distribution. In the Albanian context, this result also makes sense. Lately, Albania has been experiencing a big student revolt, where many of them have decided to leave the country for a better life. The students' revolt against a government that is shifting its focus away from the improvement of university life may have influenced the fact that students are less energetic, optimistic, or active in their daily lives.

A future step is to carry the study with a larger number of participants. Also, future studies should have an equal gender distribution. Another recommendation is to include different ages, not just students, because nowadays the internet is used by every group age.

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Appendix A

Consent Form

Study Title:

A relationship between Personality traits and Internet addiction in a sample of Albanian
university students.

Faculty Investigator:

Caroline S. Clauss-Ehlers, PhD, ABPP

Professor of Psychology

Department of Psychology and Clinical Psychology Ph.D. Program

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███████████

Student Investigator:

Desara Celiku

Department of Psychology, Long Island University Brooklyn

1650 Hutchinson River Pkwy Bronx, NY 10461

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███████████

You are being asked to join a research study. Participation in this study is voluntary. Even if you decide to join now, you can change your mind later.

1. Why is this research being done?

This research is being done to defend the Master of Arts in General Psychology at Long Island University Brooklyn. This research aims to explore and understand the relationship between personality traits and internet addiction in a sample of Albanian university students. This study will include only students from a university in Tirana, Albania.

There are two criteria to be part of this study.

- First, the students must be enrolled in one of the study programs offered by the university, a bachelor's or master's program.

- Secondly the participants must be between the age of 18-30 years old.

2. What will happen if you join this study?

If you agree to be in this study, you will be asked to complete two questionnaires.

- First of all, you will be given the Internet Addiction Test, and, after reading carefully the instruction, you will be able to start completing it. The IAT has the purpose to measure the presence and severity of internet addiction. This instrument contains only 20 questions and takes only five minutes to be completed.

- Secondly, the students will be required to complete the Big Five Inventory. This instrument contains 44 questions and takes only ten minutes to be completed. The Big Five Inventory is a self-report inventory that has as aim to measure the Big Five

personality traits: (a) extraversion, (b) agreeableness, (c) conscientiousness, (d)

neuroticism, (e) and openness to experiences.

- In total these questionnaires will require only 15 minutes of your time.

3. What are the risks or discomforts of the study?

The risks associated with participation in this study are no greater than those that may

provide a benefit from the study. There may be some reaction to completing the questionnaires in

terms of your own thoughts about the content. Participation in the study is completely voluntary

and you can withdraw at any time from filling out the questionnaire. In this case, your data will

be excluded from the study. There are no right or wrong answers in the study, just your

responses that reflect your experiences. It is requested that, if possible, you complete all items in

the questionnaires.

4. Are there benefits to being in the study?

There is no direct benefit to you from being in this study. But this study may benefit society

if the results lead to a better understanding of the relationship between the big five personality

traits and internet addiction.

5. What are your options if you do not want to be in the study?

Your participation in this study is entirely voluntary. You choose whether to participate or

not in this study. If you decide not to participate, there are no penalties, and you will not lose any

benefits.

6. Will you be paid if you join this study?

It will cost nothing for the student to be part of this research. No reward or payment is given for participating in this study

7. Can you leave the study early?

- You can agree to be in the study now and change your mind later, without any penalty or loss of benefits.

- If you want to withdraw from the study, please you can let the researcher know and you can leave.

8. Why might we take you out of the study early?

You may be taken out of the study if:

- The study is canceled.

- If you feel tired or don't want to continue.

9. How will the confidentiality of your data be protected?

The data that will be collected from this study will be completely confidential and will be used only for research purposes. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the Long Island University Institutional Review Board and officials from government agencies such as the National Institutes of Health and the Office for Human Research Protections. All of these people are required to keep your identity confidential.

Consent forms will be separated from the data collection protocol to further ensure confidentiality. Research results and any related research publications will report data in

aggregate form.

10. What is the Institutional Review Board (IRB) and how does it protect you?

This study has been reviewed by an Institutional Review Board (IRB), a group of people that reviews human research studies. The IRB at Long Island University can help you if you have questions about your rights as a research participant or if you have other questions, concerns, or complaints about this research study. You may contact the IRB at Long Island University at osp@liu.edu.

11. **What should you do if you have questions about the study?**

If you have any questions about the study, please feel free to contact the researcher: Desara Celiku at desara.celiku@my.liu.edu and (phone number was provided), or contact the faculty investigator Caroline S. Clauss-Ehlers, Ph.D., ABPP at caroline.clauss-ehlers@liu.edu and (phone number was provided).

If you wish, you may contact the principal investigator by letter. The address is on page one of this consent form. You can also contact the department chair, Dr. Philip S. Wong at Philip.Wong@liu.edu and (phone number was provided). If you cannot reach the investigators or wish to talk to someone else, contact the IRB at Long Island University office at osp@liu.edu.

You can ask questions about this research study now or at any time during the study. If you have questions about your rights as a research participant or feel that you have not been treated fairly, please call the Institutional Review Board at Long Island University at osp@liu.edu.

12. What does your agreement on this consent form mean?

By marking the "Agree to Participate" box below, you are indicating that you have fully read the above text and asked questions about the purposes and procedures of this study. If you choose not to participate, please choose the "Decline to Participate" box below. You can also receive a copy of the consent form upon request.

☐   I agree to participate

☐   I decline to participate

___/___/___ Date

Appendix B

Demographic data

Age: _____

Sex:

M   F   Other

Study program:

Bachelor   Master

Direction (for Bachelor level students):

_____

 Study year:

_____

 Direction (for Master's level students):

_____

Years Online:_____

Do you use the Internet for work? __Yes__No

Appendix C

Internet Addiction Test

Instructions: The statements in this questionnaire refer to the way people see themselves. Please use the scale below to indicate how well the statement fits with you by putting a number (from 1- 5) in the empty space. Please do not leave any statement blank. There are no right or wrong answers

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 email 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 being online?
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?

Appendix D

The Big Five Inventory

Instructions: The statements in this questionnaire refer to the way people see themselves. Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. Please do not leave any statement blank. There are no right or wrong answers.

Disagree strongly   Disagree a little   Neither agree nor disagree Agree a little   Agree Strongly

1 2 3 4 5

<u>I see Myself as Someone Who...</u>

1. Is talkative	1	2	3	4	5
2. Tends to find fault with others	1	2	3	4	5
3. Does a thorough job	1	2	3	4	5
4. Is depressed, blue	1	2	3	4	5
5. Is original, comes up with new ideas	1	2	3	4	5
6. Is reserved	1	2	3	4	5
7. Is helpful and unselfish with others	1	2	3	4	5
8. Can be somewhat careless	1	2	3	4	5
9. Is relaxed, and handles stress well	1	2	3	4	5
10. Is curious about many different things	1	2	3	4	5
11. Is full of energy	1	2	3	4	5
12. Starts quarrels with others	1	2	3	4	5
13. Is a reliable worker	1	2	3	4	5
14. Can be tense	1	2	3	4	5
15. Is ingenious, a deep thinker	1	2	3	4	5

16. Generates a lot of enthusiasm	1	2	3	4	5
17. Has a forgiving nature	1	2	3	4	5
18. Tends to be disorganized	1	2	3	4	5
19. Worries a lot	1	2	3	4	5
20. Has an active imagination	1	2	3	4	5
21. Tends to be quiet	1	2	3	4	5
22. Is generally trusting	1	2	3	4	5
23. Tends to be lazy	1	2	3	4	5
24. Is emotionally stable, not easily upset	1	2	3	4	5
25. Is inventive	1	2	3	4	5
26. Has an assertive personality	1	2	3	4	5
27. Can be cold and aloof	1	2	3	4	5
28. Perseveres until the task is finished	1	2	3	4	5
29. Can be moody	1	2	3	4	5
30. Values artistic, and aesthetic experiences	1	2	3	4	5
31. Is sometimes shy, inhibited	1	2	3	4	5
32. Is considerate and kind to almost everyone	1	2	3	4	5
33. Does things efficiently	1	2	3	4	5
34. Remains calm in tense situations	1	2	3	4	5
35. Prefers work that is routine	1	2	3	4	5
36. Is outgoing, sociable	1	2	3	4	5
37. Is sometimes rude to others	1	2	3	4	5
38. Makes plans and follows through with them	1	2	3	4	5
39. Gets nervous easily	1	2	3	4	5

40. Likes to reflect, play with ideas	1	2	3	4	5
41. Has few artistic interest	1	2	3	4	5
42. Likes to cooperate with others	1	2	3	4	5
43. Is easily distracted	1	2	3	4	5
44. Is sophisticated in art, music, or literature	1	2	3	4	5

Appendix E

Flyer

SEEKING STUDENTS

APPROVED

FOR PSYCHOLOGY RESEARCH STUDY ON INVESTIGATING THE RELATIONSHIP BETWEEN THE BIG FIVE PERSONALITY TRAITS AND INTERNET ADDICTION.

Eligibility:

- Ages 18-30
- Currently enrolled in a study program at UNYT
- Bachelor or Master's student

Participation is voluntary and no reward will be given for participation.

Procedure and time commitment:

- Responding to two questionnaires.
- This procedure will require only 15 minutes of your time, in total.

Contact:

If you are interested in participating, please join us on March 13th and 14th in the Conference Room, located on the -2 floor, from 12:30 pm – 4 pm.

For more information about the study, please contact the researcher Desara Celiku at desara.celiku@my.liu.edu

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