

Investigating the Correlations between Turkish Students' Personality Characteristics and Internet Attitudes

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Abstract: Internet has significantly expanded over the past 5–10 years to become part of our everyday lives. However, Internet is still a rather unexplored area in terms of psychological research, especially in the field of personality. This study examined the relationships between Turkish students' personality characteristics and their internet attitudes among 201 university students who attended the faculty of education at Marmara University, Istanbul. To determine the personality characteristics, Adjective Check List was used. Also, a five-point Likert scale was used in order to measure the internet attitudes. The findings reveal that Turkish students' personality characteristics are related to their internet attitudes, and explain about 51% of the total variance of the internet attitudes. Moreover some of personality characteristics such as order, heterosexuality, autonomy, aggression, succorance, abasement, self-control and self-confidence significantly predict students' internet attitudes.

Key-Words: Personality, personality characteristics, internet, internet attitudes.

1 Introduction

In the past few years, many educators and psychologists have examined people's attitudes toward the Internet [1-3]. This line of research has viewed the attitudes toward the Internet as an important factor in the acceptance and usage of this technology [4,5]. To date, many studies investigated the role of psychological factors for internet usage; but, only a few focused specifically on the personality characteristics of the internet users. Recent researches have suggested that personality characteristics play an important role in determining both Internet usage and Internet attitudes [6,7].

The theoretical basis for predicting relationship between personality and internet use comes from two sources: the uses and gratifications model and social network theory [8]. To identify the impact of the communication medium on individuals one must first identify the needs potentially gratified by using the medium. With respect to the internet, the needs associated with use of information, communication, entertainment and escape. Individuals use the internet primarily to satisfy information and communication needs, followed by entertainment and escape needs [9-11]. Thus, one basis for predicting a relationship between personality

characteristics and internet use is the relationship between personality and these needs. Extraverts have stronger communication needs than do introverts, and should be more likely to use the communication tools of the internet than should introverts.

Personality characteristics relate to the individual's cognitive and affective structures used to understand events and people. Many researchers have explored individual attitudes toward computer related skills. Personality characteristics of the internet users represent the affective component of their individual differences. These characteristics should reflect the individual's attitudes, feelings and emotions regarding internet. Leonard and Page's conceptual model of internet attitudes and use [12] suggests that personality characteristics and have effected internet attitudes of the individuals.

Hamburger and Ben-Artzi [13] who were the first to demonstrate link between personality and internet, argue that to study the impact of the internet on individuals and society, it is a necessary preliminary to understand the personality of the user, since what is good for one user is not necessarily good for another. They found personality is connected internet use and analyzed levels of two

different personality characteristics (extraversion and neuroticism) and found that these showed different patterns for both men and women in their interaction with the Internet services scale. For men, extraversion was positively linked to the use of leisure services, neuroticism was negatively related to information services and there was no significant relation as to the use of social sites. Whereas for women, extraversion was negatively related to the use of social sites and neuroticism was positively related to the use of social sites. These results are important because they show that personality is a highly relevant factor in determining behavior on the internet. However, they showed that there was a link between extraversion, neuroticism, and differential internet use but did not examine the impact of this interaction on internet users well-being.

Personality has importance to the internet attitudes and culture and society in which people live has also importance to the attitudes toward internet [14]. Considering all these points, the current study hopes to explore the correlations between Turkish students' personality characteristics and internet attitudes.

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1.1 Research Questions

In this study; the research questions can be stated as follows;

- a. What are the personality characteristics of Turkish students?
- b. Are there any significant relationships between Turkish students' personality characteristics and internet attitudes?
- c. Are there any personality characteristics that significantly predict the Turkish students' internet attitudes? If so, what are they?

2 Methodology

2.1 Sample and Procedure

The study was conducted in May 2005, and the sample of this study consisted of 201 students from Education Faculty of Marmara University, Istanbul. The students' ages ranged from 19 to 23, and 38.3% of the sample were female while 61.7% of them were male.

In this study, a correlational design was used to investigate the relationships between the internet attitudes and personality characteristics of Turkish students. Participants were briefed on the purpose of the study and they participated on the principle of willingness. The participants then signed the consent form and completed the survey by themselves. The

survey papers were collected by the researcher on site. The procedures of the study were explained to the students and any questions arised were answered.

2.2 Data Collection Instruments

In the current study, the data were collected by using the internet attitudes scale and the adjective check list (ACL). These data gathering instruments are explained below.

2.2.1 The Internet Attitudes Scale

The scale, which consists of 31 items, was designed in order to measure the internet attitudes of the Turkish students by Tavşancıl and Keser [15]. Students were asked to respond to the statement using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The validity and reliability studies were carried out by Tavşancıl and Keser (2002), and the Cronbach Alfa internal consistency coefficient was found to be 0.89. Reliability studies were carried out again by the researchers and were found to be 0.91.

2.2.2 The Adjective Check List (ACL) Inventory

The ACL [16] is a versatile tool for assessing personality and perceived psychological tendencies of adults and adolescents. The ACL consists of 300 adjectives comprising 37 scales that include measures of psychological needs based on Murray's needs [17], ego functioning based on Berne's theory [18], creativity and intelligence based on Welsh's intellection concept [19], and topical scales created by the authors. The validity and reliability studies were carried out by Savran [20] who adapted ACL to Turkish. Alpha coefficients of the scale range from .46 to .84 which falls within the range of acceptable reliability coefficients for personality measures [21]. In the current study 15 need scales and 9 topical scales were used to assess Turkish students' personality characteristics.

2.3 Data Analysis

In order to specify the correlations between Turkish students' personality characteristics and internet attitudes Pearson Moments Correlation coefficient was used. In addition, with the aim of obtaining the most suitable regression equivalent in explaining the students' internet attitudes, multiple regression analysis was used. Multiple regression analysis provides a chance to interpret the total variance of the dependent variable explained by the independent variables and its statistical significance. In the current study, internet attitudes are adopted as the dependent variable and personality characteristics as the independent variables.

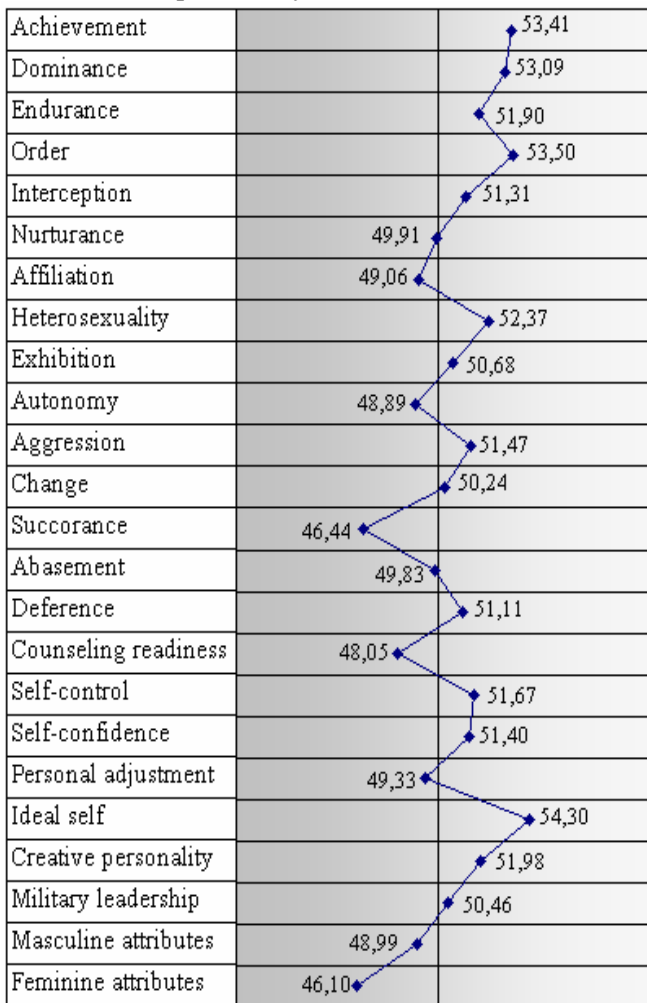
The significance level for all the statistical results in the study is accepted to be 0.05 and all the results are

tested two-ways. For statistical analysis the software used was SPSS 13.0.

3 Presentations of the Findings

First of all, personality characteristics of the Turkish students' are determined. Then, the correlations between the Turkish Students' personality characteristics and internet attitudes are presented. Lastly, results from the multiple regression analysis are examined.

Figure 1. The means of Turkish students' personality characteristics



For the interpretation of the Adjective Checklist (ACL), first of all the scales above and below 50 points are determined. From the scales above 50, five highest sub-scales are then specified and their basic characteristics are identified from the highest to the lowest. Then the Q-Sort definitions are used which display a positive correlation with the scale. After determining the first five sub-scales, the lowest three scales are specified and for their interpretation Q-Sort definitions which display a negative correlation with the scale [20].

Considering the results, the top 5 sub-scales above 50 are respectively; Ideal self (54.30), Order (53.50),

Achievement (53.41), Dominance (53.09) and Heterosexuality (52.37). The personality characteristics which have the lowest points are found to be feminine attributes (46.10), succorance (46.44) and counseling readiness (48.05). Below is a brief examination of the Turkish students' personality characteristics. Afterwards the relations between the students' personality characteristics and their internet attitudes are specified.

The Q-Sort definitions which display a positive correlation with the first sub-scale, Ideal self are: "have a wide range of interests, is productive, settles his business in a short time, has high ideals, feels at ease among people, frequently finds himself in dreams and fantasies, is carried away with imaginary thoughts, has an ever changing mood".

The Q-Sort definitions which display a positive correlation with the second sub-scale, Order are: "is fastidious, is difficult to please, prefers conservative values for the most part, is proud of being objective and rational, has a tendency to control his needs without any necessity, is a moralist, gives rise to ridiculous situations, is a dreamer, frequently finds himself in dreams and imaginary thoughts".

The Q-Sort definitions which display a positive correlation with the third sub-scale, Achievement are: "is talkative, is fastidious and difficult to please, is productive, settles his business in a short time, his behaviors are decisive and is impulsive, has high ideals, attaches importance to power, looks for the characteristic of power in himself and in others, has an obvious and effective place in society, has a tendency to give advice to others".

The Q-Sort definitions which display a positive correlation with the fourth sub-scale, Dominance are: "is talkative, his behaviors are decisive and is impulsive, attaches importance to being with others, is friendly, challenges the boundaries and has a desire to surpass those boundaries, has high ideals, is satisfied with himself, attaches importance to power, looks for the characteristic of power, has an obvious and effective place in society".

The Q-Sort definitions which display a positive correlation with the last sub-scale, Heterosexuality are: "likes to give in his relations to others, is adept at public works about imaginary games, mimicking and humour, has a fast personal beat, is friendly and has an ability to have close relations".

The personality characteristics which has the lowest points for the Turkish students (feminine attributes, succorance and counseling readiness) can be summarized as follows: "has feminine attitudes and behaviors, does not stand up for pressure and supremacy posed upon him, expects acceptance from others, is

cowardly, is scared of any kind of danger whether it is real or not, is aware of the problems he encounters in his relations, has a tendency to create appreciation and acceptance in others, can have close relations, is loving”.

Table 1. The correlations between the Turkish students’ personality characteristics and internet attitudes

Personality characteristics	N	Internet Attitudes	
		r	p
Achievement	201	0.18	0.01
Dominance	201	0.31	0.00
Endurance	201	-0.08	0.21
Order	201	-0.31	0.00
Interception	201	0.01	0.98
Nurturance	201	-0.10	0.16
Affiliation	201	0.18	0.01
Heterosexuality	201	0.21	0.00
Exhibition	201	0.42	0.00
Autonomy	201	0.10	0.15
Aggression	201	0.16	0.02
Change	201	0.27	0.00
Succorance	201	0.05	0.45
Abasement	201	-0.21	0.00
Deference	201	-0.10	0.15
Counseling readiness	201	-0.30	0.00
Self-control	201	-0.27	0.00
Self-confidence	201	0.46	0.00
Personal adjustment	201	-0.06	0.33
Ideal self	201	0.16	0.02
Creative personality	201	0.33	0.00
Military leadership	201	-0.02	0.70
Masculine attributes	201	0.12	0.07
Feminine attributes	201	0.11	0.10

As it can be seen from Table 1, positive correlations were detected between the students’ internet attitudes and personality characteristics such as achievement (r=0.18; p<0.01), dominance (r=0.31; p<0.01), affiliation (r=0.18; p<0.01), heterosexuality (r=0.21; p<0.01), exhibition (r=0.42; p<0.01), aggression (r=0.16; p<0.05), change (r=0.27; p<0.01), self-confidence (r=0.46; p<0.01), ideal self (r=0.16; p<0.05), and creative personality (r=0.33; p<0.01).

However, some negative correlations were also detected between personality characteristics and internet attitudes such as order (r=-0.31; p<0.01), abasement (r=-0.21; p<0.01), counseling readiness (r=-0.30; p<0.01) and self-control (r=-0.27; p<0.01).

Table 2. The results of the multiple regression analysis regarding the prediction of the Turkish students’

Internet attitudes

	B	beta	t	p
Constant	54.16	-	2.64	0.01
Achievement	-0.20	-0.19	-1.44	0.15
Dominance	0.07	0.06	0.52	0.60
Endurance	0.03	0.03	0.29	0.77
Order	-0.27	-0.26	-2.58	0.01
Interception	0.02	0.02	0.31	0.75
Nurturance	0.23	0.19	1.86	0.06
Affiliation	0.15	0.13	1.82	0.07
Heterosexuality	0.23	0.22	2.02	0.05
Exhibition	0.11	0.08	0.76	0.44
Autonomy	-0.26	-0.20	-2.15	0.03
Aggression	-0.31	-0.26	-2.47	0.01
Change	0.04	0.04	0.53	0.59
Succorance	0.31	0.27	3.43	0.00
Abasement	-0.61	-0.52	-3.59	0.00
Deference	0.26	0.20	1.90	0.06
Counseling readiness	0.00	0.00	0.05	0.96
Self-control	-0.32	-0.20	-2.60	0.01
Self confidence	0.42	0.37	3.15	0.00
Personal adjustment	-0.07	-0.06	-1.08	0.28
Ideal self	-0.03	-0.03	-0.44	0.66
Creative personality	0.22	0.19	1.86	0.07
Military leadership	-0.17	-0.14	-1.75	0.08
Masculine attributes	-0.01	-0.01	-0.25	0.79
Feminine attributes	0.07	0.07	1.00	0.31
R=0.703, R ² =0.509				
F=7.592, p=0.000				

In order to identify the predictors of Turkish students’ internet attitudes, multiple regression analysis was used. As a result, positive relations were detected between the students’ internet attitudes and personality characteristics (F=7.592; p<0.05). 24 different personality characteristics explain about 51% of the total variance of the internet attitudes. The variables that significantly predict the students’ internet attitudes are order (t=-2.586; p<.05), heterosexuality (t=2.020; p<.05), autonomy (t=-2.154; p<.05), aggression (t=-2.476; p<.05), succorance (t=3.439; p<.05), abasement (t=-3.591; p<.05), self-control (t=-2.603; p<.05) and self-confidence (t=3.152; p<.05). The regression equation for predicting the students’ internet attitudes is presented in below:

$$\text{Internet Attitudes} = 54.161 - 0.272 \text{ order} + 0.232 \text{ heterosexuality} - 0.266 \text{ autonomy} - 0.316 \text{ aggression} + 0.314 \text{ succorance} - 0.615 \text{ abasement} - 0.320 \text{ self-control} + 0.426 \text{ self-confidence.}$$

4 Discussions

The present study revealed that there are positive correlations between Turkish students' internet attitudes and personality characteristics. This result is consistent with the findings of the previous studies [8,13]. The personality characteristics which show positive correlations with internet attitudes are achievement, dominance, affiliation, heterosexuality, exhibition, aggression, change, self-confidence, ideal self, and creative personality.

The common points of the personality characteristics; achievement, dominance, self-confidence, aggression and ideal self can be summarized as follows; "are productive and talkative, are decisive in their behaviors and are impulsive, attaches importance to power, has high ideals, and achieving those ideals are very important for them". It is an anticipated result that the students which have high points from the sub-scales of achievement, dominance, self-confidence, aggression and ideal self would also have a positive attitude towards the internet from the points of productivity and communication. Likewise these students consider the internet as an effective tool to achieve their ideals which are of high importance for them. The reason is that internet provides the students with a great advantage in order to obtain information, communicate and follow the innovations [7,22]. The Internet, with its breadth of information and resources, provides an important tool for students to lead independent lives, to keep in touch with friends and family through e-mail, and to make informed decisions on many issues from health information to travel and hobby interests [1]. One of the results of the study which attracts much attention is that there is a high correlation between aggression and the students' internet attitudes. This result shows that the students with a high tendency towards regression, have positive high attitudes towards the internet. The reason is that the internet environment, can be used to serve the individuals' aggression inclinations.

In addition; the common characteristics of the sub-scales; affiliation, exhibition, change and heterosexuality can be summarized as follows: "are sociable and friendly, attach importance to being with others, have an ability to have close relations, are humorous and witty." As can be inferred from these results, the internet attitudes are high for the individuals who can communicate with others easily, because, with increased amount of time spent interacting online, people are likely to find others who are similar to them. Individuals are more likely to be attracted to others who are similar in backgrounds, attitudes, and personality characteristics [17]. This, in turn, affects the students' internet attitudes positively.

On the other hand, there were negative correlations between Turkish students' internet attitudes and personality characteristics such as order, abasement, counseling readiness and self-control. The common points of these personality characteristics can be summarized as follows: "are easily influenced by others, do not stand up against pressure and supremacy, are under huge tension, stay away from people".

Considering this result, the internet attitudes are low for the students' who stay away from others and are easily influenced. In fact, the anticipated result would be that the students who have high attitudes towards the internet would be affected more from the internet environment and thus restrict themselves with this environment [22]. However, the results of the study contradict with the anticipation and it is found that the individuals with high attitude levels towards the internet are not easily influenced by the others.

The last result of this study is that some personality characteristics predict the internet attitudes, and explain about 51% of the total variance of this attitude. The total variance shows that personality characteristics have a sufficient ratio of effect on internet attitudes.

Consequently, even with the ever-changing Internet, it is possible that these findings cannot be generalized to the whole population of today's Internet users. Participants in this research were all undergraduate students ranging in age from 19 to 23 years old, and had grown up with the Internet. These factors might have influenced the results. So, additional research is needed in order to generalize the results to a wider population.

Personality is just one dimension of students' characteristics that influences Internet attitudes. Other aspects such as cultural influences need to be considered when investigating the impact of students' characteristics on internet attitudes.

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