

COMMUNICATES–RELATIONS



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THE ADOPTION FOR SOCIAL NETWORKS AND LONELINESS OF THE TEACHER CANDIDATES

ABSTRACT

The purpose of this study is to determine the relationship between the adoption of the social networks by teaching candidates and their loneliness. With this purpose in mind, 133 students from education faculties were involved in this study. In the study, the UCLA Loneliness Scale and the Social Networks Adoption Scale were applied to the students. After using the SPSS 18.0 program, the results from the scales were deduced using the Pearson Correlation, Independent t-Test, and One-Way Analysis of Variance (ANOVA). A significant relationship between students' scores of loneliness and the usage of online social networks was revealed. The conclusion is that the loneliness scores of the students increase according to the frequency students use social networks. In addition, it can be said that the loneliness situation of students and their adoption of social networks does not change according to the universities in which they study.

Key words:

Social networks, Adoption, Loneliness, Teacher Candidates

1. Introduction

Nowadays, computers and the Internet, in parallel with scientific and technological developments, have taken an important place in daily life. It was first computers, followed by the Internet, that became an indispensable part of daily life. The Internet, however, was used for different purposes, namely for informational, communication, and entertainment purposes. And, the adoption of social networks as a tool in daily life for all of these purposes developed quickly.

Social networks provided for the reconstruction of social environments with a significantly different and wider situation than those in real life. The first online social networks appear to have been email lists and email groups within the local networks of institutions that enabled employees to message one another. Social networks caused an increase in online virtual communities wherein people can communicate, share information, and always “see” each other¹.

There are some differences between social networks on the Internet and social networks in real life. Social networks on the Internet are more flexible than in real life. According to Lefebvre, while it is difficult to be included into groups and to be effective in groups in real life, it is easy to join social groups on the Internet². While real-life social networks include face-to-face meetings and are characterized by strong connections, online social networks can easily incorporate acquaintances that are rarely seen. In addition, the Internet makes communication easy via overcoming time and place limitations³.

Facebook is a social network that has quickly become popular in the world and Turkey. It is used for various purposes by users of all ages. Facebook has attracted millions of users by allowing its users to interact with one another and share pictures, videos, and content. A study of 268 university students tried to determine the reasons for signing up for an account on Facebook. The study found that the reasons for using Facebook are to find old friends, to spend time, and to communicate with different people⁴.

Despite the easiness and advantages that the Internet provides to people, studies have found that it also has adverse effects. According to the results from a the study carried out by Stanford, 39% of Internet users spend less time on family and

¹ M. Çaylı, *Interactive Visualization of Heterogeneous Social Networks Using Glyphs*, Sabancı University, Graduate School of Engineering, Master of Science, İstanbul July 2009.

² H. Lefebvre, *Modern Dünyada Gündelik Hayat*, İstanbul 2007.

³ N. Timisi, *Yeni İletişim Teknolojileri ve Demokrasi*, Ankara 2003.

⁴ K. ve Kobak, S. Biçer, *Facebook Sosyal Paylaşım Sitesinin Kullanım Nedenleri*, International Educational Technology Conference, Eskişehir 2008.

friend relationship and 8% of that figure become distanced from social opportunities⁵. Because of this, researchers were able to determine that Internet addiction was an issue that warranted attention. Within the scope of this study, the loneliness variable, one of psychological effects that can arise due to Internet use, will be covered.

Different writers define loneliness in different terms. Nonetheless, it is commonly held that loneliness is painful for people. Peplau and Perlman perceive loneliness on the basis of human relations and they define it as a feeling caused when current relations do not satisfy expectations⁶.

A relationship between the Internet and loneliness is seen in a previous research⁷. In the study carried out with 650 high school students by Turnalar Kurtaran, it was found that the Internet addiction of individuals affects the loneliness status in a positive way⁸. In the thesis study, Çağır emphasized that the problems associated with Internet use is becoming increasingly common among university and high school students and have been correlated with loneliness in a medium-positive way⁹.

In addition to these studies, there are other studies indicating that the Internet and social networks serve as other socialization environments for people and they help them keep loneliness at bay. Saunders analyzed the the use of Facebook by prospective teachers to identify the position places of social networks, such as Facebook and Myspace, in teacher education. Saunders stated that prospective teachers associated their professional identities with their personal identities on Facebook and they formed a teacher network and collaboration environment by using Facebook groups¹⁰.

⁵ A.F. Wood, *Online Communication: Linking Technology, Identity and Culture*, Matwah 2004.

⁶ L.A. Peplau, D. Perlman, *Perspectives Onloneliness* [in:] *Loneliness: A Sourcebook of Current Theory, Research and Therapy*, L.A. Peplau, D. Perlman (eds.), New York 1982, pp. 1–18.

⁷ J. Morahan-Martina, P. ve Schumacher, *Incidence and Correlates of Pathological İnternet Use among College Students*, "Computers in Human Behavior" 2000, No. 16, pp. 13–29; C.E. Sanders, T.M. Field, M. Diego, M. ve Kaplan, *The Relationship of İnternet to Depression and Social Isolation among Adolescents*, "Adolescence" 2000, No. 35, Vol. 138, pp. 237–242; L. S-M. Whang, S. Lee, G. ve Chang, *İnternet Over-Users' Psychological Profiles: A Behavior Sampling Analysis on İnternet Addiction*, "Cyberpsychology & Behavior" 2003, No. 2, Vol. 6, pp. 143–150.

⁸ G. Turnalar Kurtaran, *İnternet Bağımlılığını Yordayan Değişkenlerin İncelenmesi*. Yayınlanmış Yüksek Lisans Tezi, Mersin Üniversitesi 2008.

⁹ G. Çağır, *Lise ve üniversite öğrencilerinin problemlı internet kullanım düzeyleri ile algılanan esenlik halleri ve yalnızlık düzeyleri arasındaki ilişki*. Yayınlanmış Yüksek Lisans Tezi, Balıkesir Üniversitesi 2010.

¹⁰ S.J. Genuis, S.K. ve Genuis, *Implications of Cyberspace Communication: A Role for Physicians*, "Southern Medical Journal" 2005, No. 98, pp. 451–455; J. Morahan-Martin, *The Relationship between Loneliness and İnternet Use and Abuse*, "Cyber Psychology and Behavior" 1999, No. 2, pp. 431–440;

According to the result of research by Sezgin et al., which was conducted with 146 students in Mehmet Akif Ersoy University Computer Education and Instructional Technology department and was concerned with their purposes for using Facebook and opinions about using Facebook in an educational context, it was found that students mostly use Facebook to communicate with friends and to share information/sources and that they are less likely to use it to find friends and to join groups¹¹.

Most studies indicate that students use the Internet and social networks to communicate. Meanwhile, studies are being conducted about the loneliness status of people joining these environments. For example, Kraut et al., found in their longitudinal research that the use of the Internet causes loneliness¹².

Undergraduates students are required to have communication skills for their professions, particularly teaching which requires better communication skills in real life than those that are necessary for virtual environments. In this study, the goal was to examine the relationship between the adoption status of social networks by students in the education faculty and their loneliness. In addition, to determine how their loneliness changes in terms of usage frequency of social networks is another aim.

Research questions determined according to the aim of the study:

1. Is there any relationship between loneliness and student's social network adoption scores?
2. Does a student' loneliness show any differences in terms of frequency of social networks use?
3. Is there any significant difference between loneliness and students' social network adoptions scores depending on which university they attend?

2. Method

In this section, the research model, data collection tools, study group, and data analysis will be discussed.

S. Saunders, *The Role of Social Networking Sites in Teacher Education Programs* [in:] *A Qualitative Exploration*, K. McFerrin et al. (eds.), Proceedings of Society for Information Technology and Teacher Education International Conference, Chesapeake 2008, pp. 2223–2228.

¹¹ S. Sezgin, O. Erol, N. Dulkadir, A. ve Karakaş, *Bilgisayar ve öğretim teknolojileri (BÖTE) öğrencilerinon Facebook kullanım amaçları ve eğitsel bağlamda kullanımı ile ilgili görüşleri*, MAKÜ örneği, International Educational Technology Conference, İstanbul 2011.

¹² P. Kraut, M. Patterson, V. Lundmark, S. Kiesler, T. Mukopadhyay, W. ve Scherlis, *Internet Paradox: A Social Technology that Reduces Social Involvement and Psychological Well-Being?*, "American Psychologist" 1998, No. 53, pp. 65–77.

2.1. Study Model

In this study, the survey method was used to determine the relationship between the use of social network by students from the universities' education faculties and their loneliness. General survey models are screening arrangements performed on whole universe or on a sample group or sampling taken from the universe to pass judgment on the universe containing many elements. In addition, whether or not changes in social network usage changed with any changes in the students' loneliness levels was also examined. In this sense, the research could be described as a relationship survey model¹³.

2.2. Study Group

The study group consisted of 138 volunteers who study in Education Faculties of A, B, and C Universities in the 2011–2012 academic year. The volunteers attend courses conducted by the researchers and were chosen according to the convenience sampling method. The study group was reduced to 133 individuals, because five students failed to fill out the scales. Universities A and B are foundation universities while C is state university (Table 1). The study group breakdown is as follows:

- 35 students from the Computer and Instructional Technologies Education of Faculty of Educational Sciences of A University;
- 14 students from B University (of these, eight students are from the Department of English Language in the Education Faculty; two are from the Computer and Instructional Technologies Education Department; and four are from the Psychological Counseling and Guidance Department);
- 89 students from C University (53 are from the Computer and Instructional Technologies Education Department and another 36 students are from the Elementary Mathematics Department).

Table 1. Characteristics of the Participants

| Universities Departments | Private University | | State University | Total |
|---|--------------------|---|------------------|-------|
| | A | B | C | |
| Computer Education and Instructional Technology | 33 | 2 | 50 | 85 |
| English Language and Education | – | 8 | – | 8 |

¹³ S. Büyüköztürk, E.K. Çakmak, Ö.E. Akgün, S. Karadeniz, F. ve Demirel, *Bilimsel Araştırma Yöntemleri*, Ankara 2010.

| Universities | Private University | | State University | Total |
|---------------------------------------|--------------------|----|------------------|-------|
| Departments | A | B | C | |
| Psychological Counseling and Guidance | – | 4 | | 4 |
| Mathematics Education | – | – | 36 | 36 |
| Total | 35 | 14 | 89 | 133 |

2.3. Data Collection Tools

Within the scope of the study, the researchers created a personal information form. The UCLA Loneliness Scale used to determine the loneliness levels of students. Lastly, the Social Network Adoption Scale was utilized to determine the social network adoption status. All together, these were used in order to determine the socio-demographic variables.

2.3.1. UCLA Loneliness Scale

Loneliness levels of students were evaluated according to the UCLA Loneliness Scale with 20 articles, which was originally developed by Russell, Peplau, and Ferguson and adapted to Turkey by Demir¹⁴.

In studying the reliability of the scale, a 0.91 correlation was found between first the form and the form reviewed in 1980. The internal consistency coefficient was found to be 0.94. The validity study of the UCLA Loneliness Scale was performed using the similar scales validity method by Demir. The Social Introversion Sub-scale of Multilateral Depression Scale developed by Aydın and Demir and the Beck Depression Inventory, which is used commonly in the validity study of UCLA Loneliness Scale, were taken into account as similar scales. A 0.82 correlation with the Social Introversion Sub-scale and a 0.77 correlation with the Beck Depression Inventory was found¹⁵. In the reliability study of the scale, the Cronbach Alpha Coefficient was found to be 0.96 and the correlation coefficient obtained through the repeated test method, which was conducted at five-week intervals, was found to be 0.94. The UCLA Loneliness Scale contains 10 articles coded as regular and

¹⁴ D. Russell, L.A. Peplau, M.L. ve Ferguson, *Developing a Measure of Loneliness*, "Journal of Personality Assessment" 1978, No. 42, pp. 290–294; A. Demir, *UCLA yalnızlık ölçeğinin geçerlik ve güvenilirliği*, "Psikoloji Dergisi" 1989, No. 7, Vol. 23, pp. 14–28.

¹⁵ G. Aydın, A. ve Demir, *Çok Yönlü Depresyon Envanterinin geçerlik ve güvenilirliği* [Reliability and Validity of Multiscore Depression Inventory], "Psikoloji Dergisi" 1988, No. 6, pp. 1–6.

10 articles coded as opposite. It asks individuals to specify how often they experience the status in the articles and used a four-point Likert scale. Positive statements were graded according to the following: 4 points for “never”, 3 points for “seldom”, 2 points for “sometimes”, 1 point for “often”. all included in Articles containing negative statements were scored as follows: 1 point for “never”, 2 points for “seldom”, 3 points for “sometimes”, 4 points for “often”. The maximum grade taken from the scale is 80 and the minimum is 20. The loneliness level increases with the scores from the scale¹⁶.

2.3.2. Social Network Adoption Scale

The scale developed by Usluel and Mazman was used on 606 Facebook users. The exploratory factor analysis, first level verifier factor analysis, and second level verifier factor analysis were performed for the validity study on the scale containing 21 questions. The reliability coefficient of the scale and article total correlations was calculated for reliability studies¹⁷. As a result of the analyses, the adoption scale, which includes five factors – contain benefit, ease of use, social effect, facilitator factors, and community identity – and 21 questions was developed. The reliability coefficient of the scale was found to be 0.901.

2.4. Data Collection

During the data collection phase, the UCLA Loneliness Scale and Social Network Adoption Scale were used on students from three faculties (Computer Education and Instructional Technologies, English Language and Education, Psychological Counseling and Guidance, Mathematics Education Department of Education Faculties) at different universities in the 2011–2012 academic year. Information about the validity and reliability of the tool was discussed in section 2.3 “Data Collection Tools”. While collecting the data, the researchers gave students information about aim of the study, scales, and the principle of voluntary disclosure. The researchers also asked to them not to write their names on the scale in order to provide reliability. The respondents were given ten minutes to answer the scale.

¹⁶ A. Demir, *UCLA yalnızlık ölçeğinin geçerlik ve güvenilirliği*, “Psikoloji Dergisi” 1989, No. 7, Vol. 23, pp. 14–28.

¹⁷ Y.K. Usluel, S.G. ve Mazman, *Sosyal Ağların Benimsenmesi Ölçeği*, “Eğitim Bilimleri ve Uygulama Dergisi” 2009, No. 8, Vol. 15, pp. 137–157.

2.5. Analysis of the Data

In this study, data obtained from UCLA Loneliness Scale and Social Network Adoption Scale was analyzed with SPSS 19.0. The significance level was accepted as 0.05. The Pearson Correlation, Independent Sample t-Test and one-way analysis of variance (ANOVA) were performed in order to analyze the data.

3. Findings

In this section, findings obtained from the results of the research and interpretations are presented.

3.1. Relationship between Loneliness and Social Network Adoption Points of Students

The Pearson Correlation Coefficient was calculated to determine the relationship between loneliness and the social network adoption points of students from the education faculty. When Table 2 is examined, a significant and weak relationship—in a positive way—between loneliness and the students' social network adoption points is observed ($p=0.001$, $r=0.288$). It can be said that the social network adoption of students causes loneliness. It can be also said that loneliness increases social network adoption.

Table 2. The results of correlation between loneliness and social network adoption points of students

| Correlation | N | p | r |
|--|-----|-------|-------|
| Loneliness and Social Network Adoption | 133 | 0.001 | 0.288 |

3.2. Loneliness status of Students in terms of social network usage frequency

When the results of the one-way analysis of variance to compare the loneliness points of students to their social network usage frequency variable is examined, there exists a significant difference between the students' loneliness points in terms of the frequency the students use social networks (Table 3, $p<0.05$).

It is seen that students' loneliness points increases with increases in the frequency they use social networks. Additionally, it was observed that students using social networks every day have the highest loneliness points ($X=52.098$). By contrast, students using social networks only a few days per week have a medium score ($X=48.789$) and students using social networks a few times per month have the lowest score ($X=42.000$) (Table 4). In short, frequent use of social networks increases loneliness.

Table 3. The results of one-way analysis of variance of loneliness points according to the frequency of social network use by students

| Source of Variance | Sum of Square | df | Mean Square | F | p |
|--------------------|---------------|-----|-------------|--------|-------|
| Between Groups | 978.450 | 1 | 489.225 | 10.625 | 0.000 |
| Within Groups | 5985.625 | 132 | 46.043 | | |
| Total | 6964.075 | 133 | | | |

Table 4. Using Social Networks Loneliness Scores of students according to their frequency Descriptive Statistics

| Frequency of Use of Social Networks | N | Mean | Standart Deviation |
|-------------------------------------|----|--------|--------------------|
| All days | 91 | 52.098 | 5.823 |
| Several Times a Week | 33 | 48.789 | 7.122 |
| Several Times a Month | 9 | 42.000 | 12.796 |

3.3. Loneliness and Social Network adoption Points of Students in terms of University that they attend

When the results of independent sample t-test carried out to compare loneliness points of students according to university type that they attend are examined, it is seen that no significant difference is observed between loneliness points in terms of private or state university that students attend (Table 5, $p>0.05$). It can be stated that loneliness statuses of students in study group do not change according to university that they attend.

Table 5. The results of independent sample t-test analysis of loneliness points according to university that students attend

| Loneliness | N | X | SD | t | df | p |
|--------------------|----|-------|------|--------|-----|-------|
| Private University | 49 | 50.02 | 8.08 | -0.694 | 131 | 0.503 |
| State University | 84 | 50.92 | 6.76 | | | |

When Table 6 is examined, there is no significant difference between social network adoption points according to the university that students attend (Table 6, $p>0.05$). It could be stated that the social network adoption status of students attending state and foundation universities are similar.

Table 6. The results of independent sample t-test analysis of social network adoption points according to the university that students attend

| Social Networks Adoption | N | X | SD | t | df | p |
|--------------------------|----|--------|-------|--------|-----|-------|
| Private University | 49 | 128.06 | 33.84 | -0.445 | 131 | 0.798 |
| State University | 84 | 130.58 | 30.15 | | | |

4. Discussion

Çoklar stated that social transition period including social life and environment, social communication and social relations is being experienced together with changes in information and communication technologies in recent years in addition to changes in many different fields¹⁸. In accordance with this, Pempek, Yermolayeva, and Calvert mentioned that all of these developments create virtual worlds and social networks, which have are different and similar and daily life¹⁹. In addition, they said that communication with other people and joining groups is easy on social networks. Morahan-Martin and Schumacher stated that the Internet is a social environment in which lonely individuals can communicate with other individuals and, for the lonely person, the Internet provides different ways to socially interact while also being a wide social network²⁰. Therefore, it is stated that lonely individuals adopt more social networks that make communication easier in real life.

In this study, the relationship between loneliness and the adoption of social networks by students from the university's education faculty, as well as how their loneliness changes according to how often they use social networks, was examined.

¹⁸ A.N. Çoklar, *Bilgi ve İletişim Teknolojileri Işığında Dönüşümler* [in:] *Ailede Dönüşümler*, H. Ferhan Odabaşı (ed.), Ankara 2010, pp. 185–208.

¹⁹ T. Pempek, A.Y. Yermolayeva, L.S. ve Calvert, *College Students' Social Networking Experiences on Facebook*, "Journal of Applied Developmental Psychology" 2009, No. 30, pp. 227–238.

²⁰ J. Morahan-Martin, P. ve Schumacher, *Loneliness and Social Uses of the Internet*, "Computers in Human Behavior" 2003, No. 19, pp. 659–671.

When the results were evaluated, a relationship between loneliness and social network adoption by students was observed. According to this result, it can be said that social network adoption by students causes loneliness; it can be also said that loneliness increases social network adoption. For example, Kraut et al., found in their longitudinal research that the use of the Internet causes loneliness. In the study of 150 university students by Whitty and McLaughlin, the duo found that computer use for entertainment by students translated into a higher loneliness score²¹. In the study carried out by Turan and Göktaş, they stated that social network usage makes individuals asocial and causes communication problems in real life. In addition, they stated that sharing in social networks negatively affects sharing in real life. In other words, the lack of sharing with people in real life is due to excess communication with people on Facebook.

Within the scope of the study, it was found that loneliness points of students increased with social network usage frequency. In the research carried out by Kobak and Biçer²², when participants were asked what they felt when they logged onto Facebook, only 19% said that they were sharing their loneliness. In addition, having lots of friends on Facebook does not change the reality that they are lonely in daily life. 90.3% of the participants stated that they did not continue to communicate with people found on Facebook in different fields. In the study performed by Çetin, only 10% of participants stated that their aim in subscribing to Facebook was to avoid loneliness and to have fun²³.

Starting from this point, it can be concluded that lonely people use social networks, such as Facebook, to easily find friends. In this study, the study group contained students from the education faculty. For further studies, a research project with samples from different faculties can be suggested. As comparison between different faculties can be done, detailed analyses can be performed in accordance with same purpose via benefiting from qualitative research method.

²¹ M.T. Whitty, D. ve McLaughlin, *Online Recreation: The Relationship between Loneliness, İnternet Self-Efficacy and the Use of the İnternet for Entertainment Purposes*, "Computers in Human Behavior" 2007, No. 3, Vol. 23, pp. 1435–1446.

²² K. Kobak, S. ve Biçer, *Facebook Sosyal Paylaşım Sitesinin Kullanım Nedenleri*, International Educational Technology Conference, Eskişehir 2008.

²³ E. Çetin, *Sosyal İletişim Ağları ve Gençlik: Facebook Örneği*, Uluslararası Davraz Kongresi Bildiri Kitabı, 2009, pp. 1094–1105.

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