

Öğretmen Adaylarının Facebook Kullanımları ve Facebook'un Mesleki Gelişimlerindeki Yeri Konusundaki Görüşleri

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ÖZET

Bu çalışmada bilişim teknolojileri öğretmen adaylarının Facebook kullanımlarını ve Facebook'un mesleki gelişimlerindeki yeri konusundaki görüşlerini değerlendirmek için açıklayıcı karma araştırma yöntemi uygulanmıştır. Nicel kısımda, Facebook kullanım anketi yoluyla, Türkiye'deki üç temsili devlet üniversitesinin Bilgisayar ve Öğretim Teknolojileri Eğitimi Bölümlerindeki toplam 338 lisans öğrencisinden veriler toplanmıştır. Anket sonuçları öğretmen adaylarının Facebook'u beğendiklerini ve Facebook'dan yararlandıklarını göstermiştir. Ancak, daha ayrıntılı verilere ulaşmak için, nicel veri analizi sonuçları, kasıtlı seçilmiş dört öğretmen adayı ile yapılacak olan planlanmış bir görüşmenin hazırlanmasında kullanılmıştır. Görüşmeler sonucu toplanan verilerin anlamlı gruplandırılması için kodlama yapılarak veriler içerik analizine tabi tutulmuştur. Bu açıklayıcı araştırma sonuçlarına göre Facebook'un özellikle iletişim, paylaşım ve sosyalleşmedeki kapasitesi, Facebook'un bir mesleki gelişim aracı olarak kullanılmasında önemli bulunmuştur.

ANAHTAR KELİMELER: Sosyal Ağlar, Facebook, Öğretmenlerin Mesleki Gelişimi, İletişim

Preservice Teachers' Facebook Usage and Their Perspectives about Facebook as a Professional Development Tool

ABSTRACT

In this study, an explanatory mixed method design was employed to evaluate preservice information technology teachers' Facebook usage and their perspectives about Facebook as a professional development tool. In quantitative phase, data were collected through a

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Facebook usage survey on a total number of 338 undergraduate Computer Education and Instructional Technology (CEIT) students from three representative state universities in Turkey. Survey results indicated that preservice teachers favored and utilized Facebook. To find out more in-depth data, the results of quantitative data analysis were used to develop a structured interview to be done with four preservice teachers who were selected purposefully. The data collected from the interviews were subjected to content analysis where coding was conducted to create meaningful organization of the data. According the results of this explanatory study especially communication, sharing and socializing capacity of Facebook were found important in terms of using Facebook as a professional development tool.

KEYWORDS: Social Networking Sites, Facebook, Teacher Professional Development, Communication.

INTRODUCTION

Social Networking Sites (SNSs) can be used by educational communities (Locker & Patterson, 2008; Cain, 2008) where participants have a common interest. Understanding SNSs, social capital and social presence concepts are important not only to get benefit from participants' interaction and communication but also to increase the effective use of those communities. The aim of this study is to evaluate preservice information technology teachers' Facebook usage and their perspectives about Facebook as a professional development tool

Social Capital and Social Presence

The online social networks, mostly the Facebook have great value among university students embracing broad communities. When online social networks are investigated as communities, they are called as computer-mediated communities which increase diverse population access to each other and social capital as well (Hampton, 2001 as cited in Silverman, 2007, p.39). Social capital is the benefit of being a member of a social community where there is a common interest.

Ellison et al. (2007) described two forms of social capital as bridging social capital and bonding social capital and presented a third type of social capital which is 'maintained social capital'. Bridging social capital was explained as, "weak ties between individuals who may provide useful information or new perspectives for one another but typically not emotional support" (Granovetter, 1982 as cited in Ellison et. al, 2007, p.1146), whereas bonding social capital was explained as formed between individuals who have emotionally close relationships such as relatives or close friends. If an individual obtains valuable connections through online social network and continues to keep in touch with her connections even after disconnecting in real life physically; Ellison et. al (2007) define this concept as the maintained social capital. Furthermore, Ellison and her colleagues (2007) found out strong relationships between the aforementioned three types of social capital and undergraduate students' Facebook use and their results also suggested that students with low self-esteem

and low life satisfaction were more likely to benefit from the use of Facebook. The three forms of social capital, particularly the maintained social capital can also be engaged among prospective information technology teachers and thereby Facebook usage may contribute to their professional development.

According to Silverman's (2007) dissertation where he sought the effects of online social networking tools, particularly the Facebook, on college students' experiences; college students perceive online social networking tools beneficial for building a sense of community. Students' perceptions indicated that online social networking allows students to capitalize on the connections they make online in terms of long-term career benefits, classes and socialization as a whole (Silverman, 2007, p.125)

In the communication literature, the definition of the social presence is stated as, "the degree of salience of the other person in the interaction and the consequent salience if the interpersonal relationships" (Short, Williams and Christie, 1976, p.65 as cited in Aragon 2003; Gunawardena, 1995; Kekwaletswe, 2007; Dunlap and Lowenthal, 2009). Gunawardena and Zittle (1997) elucidated social presence term as, "the degree to which a person is perceived as a real person in a mediated communication" (p.9).

Approaches to social presence can be summarized as physically, psychologically and behaviorally (Scarpetta (2008, p.28). Scarpetta (2008) investigated when, how and why social presence was manifested during an online video game to display social presence by using an experimental study having 24 university students. Studies of both Kekwaletswe (2007) and Gunawardena and Zittle (1997) are some of the researches that examine the effects, roles, applications, and implications of social presence on various learning environments such as distance education, computer mediated communication, online collaborative learning situations, and mobile learning environment.

Professional Development

The Ministry of National Education (MoNE) defined teacher qualification, qualification areas of the teachers, and professional development. According MoNE's description, teachers should

1. Be aware of their professional needs
2. Use the information and communication technologies to support their professional development
3. Follow up the publications about their professional development
4. Design and apply case studies to enhance the teaching process

5. Cooperate with the professional organizations and join the decision making process

6. Self-regulate their professional development and use information and communication technologies to share information (MoNE, 2008).

In other words, ministry of national education of Turkey emphasizes the use of information of communication technology to gain knowledge and share information about teaching profession and communicate with colleagues to enhance their professional abilities.

Additionally, teacher qualifications of each subject area were defined by the MoNE (MoNE, 2008). For example, teachers, teaching information technologies related subjects, should benefit from the information technology to support and enhance their professional development. Therefore, they should follow technological developments and follow up the publications about the subject area. They also should use the information technologies to communicate with their colleagues, specialists, families and students (MoNE, 2008). In other words, they should use technology to share and gain knowledge, and develop a social network to support their professional development. Finally, they should be aware of the effect of the technology on society, and they should adjust to the new technologies. They also should be an innovator agent in their school.

Obviously, use of information and communication technology such as SNSs is important in teachers' professional development. Although there are in-service trainings for teachers, social networks of the teachers have great potential for professional development. There are plenty of communication and information sharing platforms nowadays such as online and offline social networks, forums, online conferences. Facebook, most popular SNS, can be used to support teacher professional development.

Social Networking Sites and Facebook

SNS can basically be defined as a web-based service which provides an online private space to communicate, share and discuss ideas with other users (Carosu and Salaway, 2008; Hu and Wang, 2009; Boyd and Ellison 2007). Due to the popularity of SNSs, many researchers have done to explore how much, why, and how these sites are used. The most common purpose of using SNSs is to stay in touch with friends, colleagues and family (Ajjan and Hartshorne, 2008; Boyd and Ellison, 2007). SNSs are also used for making new friends, sharing and uploading photos, videos and links.

Ellison, Steinfield and Lampe (2007) provide an overview of Facebook, founded on February 4, 2004 by Mark Zuckerberg (Griffith, and Liyanage, 2008), and, recently, became the most popular online social networking community among students (Bosch, 2009).

Facebook was designed for college students. However, high schools students, and commercial organizations had started to use it since 2005. Users of Facebook can create personalized profiles, including general information such as educational and work background, and interests. Moreover, users, such as students, use Facebook for a wide variety of academic purposes (Harris and Rea, 2009; Subrahmanyam et. al, 2008; Hargittai, 2007; Acquisti and Gross, 2006; Debatin, Lovejoy, Horn and Hughes, 2009; Valenzuela, Park, and Kee, 2009). Although Facebook has educational, socialization potential, it has negative sides like cyber stalking, cyber-harassment, privacy issues, fake profile and information (Silverman, 2007; Pysz, 2008).

Educational Uses of Social Networking Sites

The role of Web 2.0 technologies such as SNSs has been interested by both academicians and researchers due to the popularity among students of all ages. The study of Dunlap and Lowenthal (2009) provided guidelines for utilization of SNSs and stated some instructional benefits of them in the online courses. Like Dunlap and Lowenthal (2009), there are other researchers who encouraged academicians to use SNSs for educational purposes. However, there are not enough empirical research examined the awareness of academicians about Web 2.0 technologies potential in education (Muñoz & Towner, 2009; Bosch, 2009).

Cain (2008) declared that SNSs enable students to make connections on campus which help them feel that they belong. Furthermore, Cain (2008) claimed that this situation may be an important factor in student retention. Researchers have recognized numerous benefits of Web 2.0 technologies to learners in higher education (Cain, 2008; Alexander 2006; Kumar, 2009)

Grosseck (2009) stated that all the actors from the educational field (teachers, tutors, trainers, administrators, or those responsible for policies) will find the Web 2.0 technologies such as SNSs efficient and promising both for the educational process and for self development. Researchers are mostly concerned on the students' perception of using SNSs for educational purposes (Santos et al., 2009; Shen & Eder, 2009; Peluchette & Karl, 2008). However, students may not have a chance to use SNSs in course related activities if their teachers do not employ SNSs in their courses.

The utilization of SNSs in learning and teaching depends on perceptions of all participant of learning processes such as teachers and students. Therefore, it is important to understand the preservice teachers' use of SNSs and their perspective about SNSs as a professional development tool.

METHODS

The purpose of this study is to evaluate the students' perception about Facebook and to find out their ideas about Facebook as a professional development tool. The following research questions guided this study.

- How do pre-service information technology teachers utilize Facebook?
- What are the perspectives of pre-service teachers about Facebook in terms of their professional development

Research Model

According to Creswell & Clark, mixed method research is the combination of quantitative and qualitative data and it provides a better understanding of research problems than either alone (Creswell & Clark, 2007). Therefore, in order to clarify research questions, mixed method design was employed in this study. Quantitative study followed by qualitative study was performed to understand students' perception about Facebook usage as a professional development tool.

Sampling

The target population of the study is undergraduate CEIT students from all grades in Turkey. In the quantitative part of the study, convenient sampling method was used and 3 representative state universities were selected: Middle East Technical University in Ankara, Yıldız Technical University in İstanbul, and Atatürk University in Erzurum and all participants were asked to complete a 12 item questionnaire about demographic information and Facebook Usage.

338 students responded to questionnaire where 38.5% of them are from Yıldız Technical University, 27.8% of them were from Middle East Technical University, and 33.7% of them were from Atatürk University (Table 1.a). Female students constituted 34.3% of the sample, and male students constituted 65.7% of the sample (Table 1.b).

Table 1. *University and Gender Statistics*

University	N	N %	Gender	N	N %
Yıldız Technical University	130	38,5%	Female	116	34,3%
Middle East Technical University	94	27,8%	Male	222	65,7%
Atatürk University	114	33,7%	Total	3 8	100,0%
Total	338	100,0%			

(a) University Statistics

(b) Gender Statistics

When respondents' "year at school" was taken into account, the distribution of years had close percentages, as 3rd year students having the lowest percentage

with 21.9% and 2nd year students having the highest percentage with 26.9% (Table 2).

Table 2. *Year at School Statistics*

Year	Frequency	Percent
1	84	24,9
2	91	26,9
3	74	21,9
4 & above	89	26,3
Total	338	100,0

General high school graduates (including science and private high schools) constituted 33.4% of the respondents, remaining 66.6% of the respondents graduated from vocational, technical vocational or Anatolian Teacher Training High Schools.

In the qualitative phase of the research, purposive sampling, particularly, maximum variation sampling was used. Grade level was considered as the unit of maximum variation sampling: two pairs of pre-service teachers were selected from first grade level and fourth grade level, thereby; the sample had represented a diversity of perspectives and characteristics (Fraenkel and Wallen, 2006, p.440) according to their educational and professional experience. These four pre-service teachers were selected among the students who reported that he/she had instructors in his/her Facebook account; believed that every computer education and instructional technology faculty should have Facebook account; and believed that Facebook can be used for educational purposes.

Instrument & Data Collection

In the quantitative part, a 12 item questionnaire was designed in 2 sections: Personal Information and Facebook Usage. During the development, researchers were inspired from Mathews and Schrum's (2003) "Internet Use Survey". However, due to the studies time limit a reliability test was not conducted. The questionnaire was applied by researchers and a faculty member in paper form.

In the qualitative part, a structured interview was developed to collect qualitative data on pre-service teachers' opinions on the use of Facebook as a professional development tool. The interview was consisted of four questions in the following areas: "why pre-service teachers use Facebook; what pre-service teachers share with their instructors on Facebook and their opinions on how this contributes their relationships with instructors; opinions about the effects of using Facebook for communicating their instructors during their professional lives; opinions on how they can utilize Facebook in their future profession as information

technology teachers.” The data collected from interviews were subjected to content analysis.

Data Analysis

In the quantitative part of the study, frequency tables were prepared to clarify the demographics and extraordinary values. After that, in order to compare differences within dependent variables for determining if the difference is statistically significant or not, independent variables “gender” and “year at school” were analyzed. For these analyses, cross tabulation and chi-square tests were used with $\alpha = .05$.

The data collected from four interviews were subjected to content analysis. As Yıldırım and Simsek (2008) stated, the main purpose in conducting content analysis is to explain the collected data by exploring meaningful phenomena. Four steps of content analysis proposed by Yıldırım and Simsek (2008) were followed during the qualitative data analysis process. In this regard, first, transcribed interview data were coded by revealing concepts through inductive analysis (Yıldırım and Simsek, 2008). Coding was conducted to create a meaningful organization of the collected interview data. Second, determined codes were categorized into three main themes: (a) facebook as a communication tool, (b) using facebook for sharing, and (c) using facebook for socializing. Third, data were organized and described based on these themes and codes grouped under each theme. Finally, in addition to the presentation of coded data under these three main themes, researchers interpret the results.

RESULTS and FINDINGS

Quantitative Findings

Quantitative data analysis was conducted to find an answer to “how do the preservice information technology students use Facebook?” first research question of the study. Quantitative data analysis was performed among the data collected from the 12 item questionnaire. All of the questions were carefully coded, reduced and analyzed.

From the overall sample, 87.9% of the students stated that they were “members of Facebook”. Within those students, 58.2% connect to Facebook every day. The percentage of students who connect to Facebook rarely was less than 10%. Within Facebook member students, 21.9% indicated that “they feel uncomfortable when they could not connect to Facebook for 3 or 4 days long”. More than half of Facebook member students (57.9%) have “between 51 and 200 friends” on Facebook. The percentage of Facebook member students who spent “less than 10 minutes” on Facebook during the previous week is 10.1%, whereas nearly one third of them (30.0%) spent “more than 3 hours” on Facebook. The majority of students (65.7%) keep their information on Facebook as reachable

for “only the members of their networks”. Only 12.8% of participants’ information on Facebook is open to “everybody and all external searches”.

When students’ usage frequency of Facebook applications were examined, it was found out that “sharing interesting links” has the highest percentage (46.1%) in “often /very often” usage. It is followed by “watching shared videos” (45.5%), “looking shared links” (39.1%), and “looking photographs of people in my network” (32.7%). When the applications, which were stated as “none” usage, were taken into account, “playing games” (53.2%) had the highest percentage, then “writing and sharing notes” (19.9%), “updating status” (19.5%), and “chatting” (17.8%).

It should be carefully considered that nearly half of the students (52.5%) indicated that in their friends list they have some of their university teachers, ranged from 1 to 30, and 89.9% of students had 5 or less teachers at the list. In addition, 43.8% of the students thought that “every CEIT instructor should have an account on Facebook”. Additionally, 76.4% of the students reported that “Facebook application can be used for educational purposes”.

There was a significant relationship between the semester number of students and having university teachers in their friends lists ($\chi^2 = 25.208$, $df = 3$, p -value = 0.000). The percentage of 1st year students (28.4%) who have some of their university teachers at their friend lists was lower than 2nd, 3rd and 4th year-and-more students (57.9%, 55.9% and 67.1%).

Table 3. *The Chi-Square Test Results on The Difference Between Students’ Ideas About Every CEIT Instructor Should Have an Account on Facebook According to Grade Levels*

Year at school		Every CEIT instructor should have an account on Facebook		
		Yes	No	Total
1	N	37	37	74
	N%	50	50	100
2	N	43	33	76
	N%	56,6	43,4	100
3	N	23	45	68
	N%	33,8	66,2	100
4 & above	N	27	52	79
	N%	34,2	65,8	100
Total	N	130	167	297
	N%	43,8	56,2	100

$$\chi^2 = 11.920, df = 3, p = 0.008$$

“Year at school” had also a significant relation with students’ thinking about “every Computer Education and Instructional Technology (CEIT) instructor should have an account on Facebook” or not ($\chi^2 = 11.920$, $df = 3$, p -value =

0.008). The percentages for 1st year students were equal for the both favoring and opposite of this idea, whereas, 2nd year students (56.6%) who favor this idea was higher than 3rd and 4th year-and-more students (33.8% and 34.2%) (Table 3).

Table 4. *The Chi-Square Test Results on The Difference Between Availability Preferences of Students According to Gender*

Gender	Reachability of Respondents' Information on Facebook				Total	
	Everybody and all external searches	Only the users of my networks	Only the members of my networks	Some of the members in my network, according to personal degrees		
Female	N	4	4	71	20	99
	N%	4,0%	4,0%	71,7%	20,2%	100,0%
Male	N	34	22	124	18	198
	N%	17,2%	11,1%	62,6%	9,1%	100,0%
Total	N	38	26	195	38	297
	N%	12,8%	8,8%	65,7%	12,8%	100,0%

$$\chi^2 = 19.863, df = 3, p = 0.000$$

As shown in Table 4, there was a statistically significant relation between gender and reachability of students' information on Facebook ($\chi^2 = 19.863$, $df = 3$, p -value = 0.000). The percentages of boys whose information was available to "everybody and all external searches" (17.2%) and "only the users of my networks" (11.1%) were higher than the percentages of girls (4.0% and 4.0%), while the percentages of girls whose information was available to "only the members of their networks" (71.7%) and "some of the members in their network, according to personal degrees" (20.2%) were higher than the percentages of boys (62.6% and 9.1%) (Table 4).

Gender also had a statistically significant effect on students' usage frequency of "looking photographs of people in their network" ($\chi^2 = 15.030$, $df = 3$, p -value = 0.002). While the percentages of boys saying "none" (8.6%) and "often / very often" (34.8%) were higher than girls (0.0% and 28.3%), the percentage of girls saying "moderate" (46.5%) was higher than boys (29.3%). Gender also affected "meeting new friends" ($\chi^2 = 20.279$, $df = 1$, p -value = 0.000). The percentage of boys (46.0%) who had met new friends on Facebook was higher than girls (19.2%). It was found that gender and students' sharing status of "their general pictures" had a significant relation ($\chi^2 = 13.953$, $df = 1$, p -value = 0.000). Although majority of both genders indicated that "they share", the percentage of girls who "do not share" (33.3%) was higher than boys (14.6%).

Qualitative Findings

The second research question of the study was as, “What are the perspectives of preservice teachers about Facebook in terms of their professional development?” To answer this second research question of the study, qualitative data analysis was performed among the data collected with these four interview questions: “why do you use Facebook?”; “what do you share with your instructors on Facebook and how this contributes your relationships with your instructors?; what might be the effects of using Facebook for communicating with your instructors during your professional life?”; and “how can you utilize Facebook in your future profession as an information technology teacher?”. Therefore, through this four-question structured interview, in-depth data on students’ opinions about the use of Facebook as a professional development tool were gathered. Transcribed interview data were coded and determined codes were categorized into three main categories: (a) Facebook as a communication tool, (b) using Facebook for sharing, and (c) using Facebook for socializing. More precisely, preservice information technology teachers reported that they believe in the efficiency of using Facebook as a professional development tool when they use it for communicating, sharing and socializing.

Communication: Preservice teachers underlined the importance of Facebook as a communication tool. They emphasized the social network groups, events and social status features of the Facebook. Data analysis revealed that by communicating with their professors and colleagues, Facebook may have positive effects on preservice teachers’ professional development. One of the interviewee explained this feature of the tool as “...staying in touch is one of the most important benefits of the Facebook. We may take advices from both academics and other teachers about the problems that we come across in our professional life.”

Sharing: Preservice teachers stressed the potential of the Facebook to improve their career. They also emphasized that they currently, use this media to share their videos, photos, ideas and etc. Obviously, preservice teachers are aware of the benefits of the Facebook usage in sharing technological news, learning materials, information about their profession. For example, one of the interviewee expressed this as “Because of the expertise of my professors, when I come across a problem or conflict [in my professional life], even their one word can provide me a different point of view”. Moreover, they pointed out the benefits of Facebook in material, technology, idea sharing with their colleagues, which would be helpful in their professional life. They also suggested using Facebook as a course management system in activities such as organizing schedule, managing activities and etc.

Socialization: Preservice teachers noticed the capacity of this environment to socialize with their colleagues, faculty and experts. Furthermore, the social groups in Facebook were considered as a socialization environment for

preservice teachers. For instance, one of the interviewees stated that "...By the help of Facebook I had the chance to meet new people who were in the same university with me or who were in overseas. While I can improve my foreign language by socializing with friends from overseas, I can also extend my social network by socializing with the friends who are in the same university." Also another preservice teacher indicated that Facebook was a proper media to be involved in academic groups since it helps socializing in academic groups.

Furthermore, the social groups in Facebook also considered as a socialization environment where knowledge and experiences can also be shared by preservice teachers. For instance one of the preservice teachers underlined the importance of Facebook as a socialization tool where she can socialize with people from the same field by the help of social groups and added as "... there are groups related to information technologies and I thought that I can easily share my knowledge with my students with the help of the groups". In this sense, socialization category both encompasses and links to sharing category since it is strongly possible that one who is a member of a social community will share information with someone.

CONCLUSION and RECOMMENDATIONS

Facebook is one way for participants to stay in contact with friends, family, and other high school and college friends. This research study has shown that undergraduate students use Facebook intensively, spend considerable time on Facebook to play games, share photos, videos and links, follow friends' photos and videos in their network and etc. Findings also indicated that students have their instructors as their friends on their Facebook account and they believe in that instructors should have Facebook account as well. Additionally, most of the students indicated that Facebook can be used for educational purposes. These findings led a more precise finding of the study: Facebook may have positive effects on preservice teachers' professional development by helping communicating, sharing and socializing in academic groups. Therefore all these findings of this study have implications for computer education and instructional technology departments of universities. In order to raise preservice information technology teachers who meet the teacher qualifications defined by MoNE(2008), departments should adopt online social network sites such as Facebook in their courses. A particular example might be as integrating online social networks in Teaching Practice courses where students have teaching apprenticeship and this will affect their professional development positively.

A further investigation for the challenges and opportunities of learning with SNSs are necessary to identify the most effective methods of utilizing SNSs to improve teaching and learning productivity; and to better support active, social, and engaging learning environments. It is recommended that future research should continue to examine SNSs and their potential use in educational settings. Also the instructional features of SNSs should be explored and hence instructors

may integrate SNSs in their teaching and learning processes. Similar studies may be conducted in primary and secondary education where the educational usage of Facebook or any other popular SNSs is sought.

REFERENCES

- Acquisti, A., & Gross, R. (2006) Imagined communities: Awareness, information sharing, and privacy on the Facebook. In P. Golle & G. Danezis (Eds.), *Proceedings of 6th Workshop on Privacy Enhancing Technologies* (pp. 36-58). Cambridge, UK: Robinson College.
- Ajjan, H., & Hartshorne, R. (2008). Investigating faculty decisions to adopt Web 2.0 technologies: Theory and empirical tests. *The Internet and Higher Education*, 11(2), 71-80.
- Alexander, B. (2006). Web 2.0: A New Wave of Innovation for Teaching and Learning?, *Educause*, 41(2), 32-44.
- Aragon, S. (2003). Creating social presence in online environments. *New Directions for Adult and Continuing Education*, 100, 57-68.
- Bosch, T. E. (2009). Using online social networking for teaching and learning: Facebook use at the University of Cape Town. *Communicatio, South African Journal of Communication Theory and Research*, 35(2), 185-200.
- Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), article 11. Retrieved December 25, 2009, from <http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html>
- Cain J. (2008). Online Social Networking Issues Within Academia and Pharmacy. *Education American Journal of Pharmaceutical Education 2008*; 72 (1), 10.
- Carosu B. J. & Salaway G. (2008) *The ECAR Study of Undergraduate Students and Information Technology Key Findings EDUCAUSE Center For Applied Research*.
- Creswell, J W., & Clark, V. L. C. (2007). *Designing and Conducting Mixed Methods Research*. Thousand Oaks, CA: Sage Publications.
- Debatin, B., Lovejoy, J. P., Horn A., & Hughes B. N., (2009) Facebook and Online Privacy: Attitudes, Behaviors, and Unintended Consequences, *Journal of Computer-Mediated Communication*, 15(1), 83-108.
- Dunlap, J. C., & Lowenthal, P. R. (2009). Tweeting the night away: Using Twitter to enhance social presence. *Journal of Information Systems Education*, 20(2), 129-136.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), article 1. Retrieved January 19, 2010 from <http://jcmc.indiana.edu/vol12/issue4/ellison.html>
- Griffith, S & Liyanage, L. (2008). An introduction to the potential of social networking sites in education, Paper presented at *the Emerging Technologies Conference*, University of Wollongong, 18-21 June 2008.
- Grosbeck G. (2009). The use or not to use web 2.0 in higher education, *Procedia Social and Behavioral Sciences* 1, 478-482.
- Gunawardena C. N. & Zittle, F. J. (1997). Social presence as a predictor of satisfaction within a computer-mediated conferencing environment. *American Journal of Distance Education*, 11 (3) 8-26.

- Gunawardena, C. N. (1995). Social Presence Theory and Implications for Interaction and Collaborative Learning in Computer Conferences. *International Journal of Educational Telecommunications*, 1 (2/3), 147-166.
- Hargittai, E. (2007). Whose space? Differences among users and non-users of social network sites. *Journal of Computer-Mediated Communication*, 13(1), 276-279
- Harris A., L., & Rea A. (2009), Web 2.0 and Virtual World Technologies: A Growing Impact on IS Education. *Journal of Information Systems Education*, 20 (2), 137-144.
- Hu, H. & Wang, X. (2009) Evolution of a large online social network, *Physics Letters A*, 373 (12/13), 1105-1110.
- Kekwaletswe, R. M. (2007). Social presence awareness for knowledge transformation in a mobile learning environment. *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, 3(4), 102-109.
- Koca, A. (2009). Facebook 2008 değerlendirmesi ve artan Türk popülasyonu. Retrieved December 3, 2010 from <http://www.webrazzi.com/2009/01/15/facebook-2008-degerlendirmesi-ve-artan-turk-populasyonu/>
- Kumar S. (2009). Undergraduate Perceptions of the Usefulness of Web 2.0 in Higher Education: Survey Development, *Proceedings of 8th European Conference on E-learning (ECEL)* (pp. 308-314). Italy.
- Locker L. & Patterson J. (2008) Integrating social networking technologies in education: a case study of a formal learning environment. *Eight IEEE International Conference on advance Learning Technologies*, (pp.529-533)
- Matthews, D. and Schrum, L. (2003). High-speed Internet use and academic gratifications in the college residence. *The Internet and Higher Education*, 6 (2), 125-144.
- MoNE (2008). *Öğretmen Yeterlilikleri Öğretmenlik Mesleği Genel ve Özel Alan Yeterlilikleri*. Devlet Kitapları Müdürlüğü. Ankara.
- Muñoz, C. L. & Townner, T. L., (2009). Opening Facebook: How to Use Facebook in the College Classroom. Proceedings of *Society for Information Technology & Teacher Education International Conference 2009*. (p. 2623-2627). Charleston, South Carolina.
- Peluchette J., Karl K.(2008). Social Networking Profiles: An Examination of Student Attitudes Regarding Use and Appropriateness of Content *CyberPsychology & Behavior*, 11(1), 95-97.
- Pysz, D. R. (2008). Student Affairs Administrators' Perspectives on the Legal and Safety Issues Associated with Students' Use of Online Social Networks on College and University Campuses: A National Study (Doctoral dissertation, University of California, 2008). (UMI No. 3356531).
- Santos, L, Hammond, M., Durli, Z., & Chou, S-Y. (2009). Is there a role for social networking sites in education? In A. Tamall & A. Jones (Eds.), *Education and technology for a better world: Proceedings of the 9th IFIP TC 3 World Conference on Computers in Education* (pp. 321-330). Berlin, Germany: Springer.
- Scarpetta, F. (2008). Practices to display social presence: A study in a shared mediated environment. *PsychNology Journal*, 6 (1), 27-59.
- Shen J., & Eder B. L. (2009). Intention to use virtual world for education. *Journal of Information Systems*, 20 (2), 225-233.
- Silverman, S. C. (2007). Creating community online: The effects of online social networking communities on college students' experiences. How can student affairs professionals best respond to this emergent phenomenon (Doctoral dissertation, University of Southern California, 2007). (UMI No. 3291809)

- Subrahmanyam, K., Reich, S., M., Waechter, N., & Espinoza G., (2008). Online and offline social networks: Use of social networking sites by emerging adults. *Journal of Applied Developmental Psychology*, 29 (6), 420-433.
- Valenzuela, S., Park, N., & Kee, K. F. (2009). Is There Social Capital in a Social Network Site?: Facebook Use and College Students' Life Satisfaction, Trust, and Participation. *Journal of Computer-Mediated Communication*, 14 (4), 875-901.
- Yıldırım, A. and Şimşek H. (2008), 6th Ed. *Sosyal Bilimlerde Nitel Araştırma Yöntemleri*. Seçkin Yayıncılık, Ankara.

SUMMARY

In recent years the use of social networking sites (SNSs) has a tremendous increase over people, particularly the university students. Since Facebook is the most commonly and actively used SNSs, its potential in educational settings is worthy to investigate since it has attracted many researchers.

According to Facebook statistics, Turkey has the fourth largest population. Moreover in Turkey, over half of the total Facebook members are university students (Koca, 2009). In the light of these statistics, the purpose of this study was to assess Facebook as a professional development tool for preservice information technology teachers, because Facebook has been mostly used by university students. As many other university students who use Facebook actively, preservice information technology teachers who are also undergraduate students in Computer Education and Instructional Technology (CEIT) departments use Facebook. However how they use Facebook had to be answered as it. Secondly, the perspectives of preservice information technology teachers in terms of their professional development were sought. Through finding out these two research questions, students' perception about Facebook would be evaluated and their ideas about Facebook as a professional development tool would be found out.

An explanatory mixed method research design was conducted in this study. In quantitative phase of the study, a 12 item questionnaire was developed. The questionnaire was consisted of students' demographic information and Facebook usage. A total number of 338 university students from first to fourth grades of CEIT departments from three different universities participated voluntarily to the study by completing the questionnaire. Chi-square tests were performed to analyze the quantitative data and test results had indicated that there were significant relationships between students' grade level and having their instructors as a friend on their Facebook account; and believing that every CEIT instructor should have a Facebook account. The percentage of first grade level students who have added their instructors in their friend list was significantly lower than the second, third and fourth grade levels. Moreover it was revealed that as the grade level increased the number of instructors in students' friend lists increased. While in first grade level, the percentages of students who favored and who were opposite to the idea that every CEIT instructor should have a Facebook account were equal, as the grade level increased to second year then

the percentage of students who favored this idea was significantly higher than the percentage of the students who didn't favor this idea. Findings indicated that gender and availability of information on Facebook had significant relationship. More precisely, while male students share their information on Facebook with everyone, female students prefer to share only with the members of their networks. Therefore it was found out that girls share their photos, videos and personal information less than boys. There is also significant difference between boys and girls according the frequency of their Facebook usage. While boys prefer connecting Facebook everyday, girls connect more frequent during weekends.

The results of the quantitative phase of the study were integrated with the qualitative phase of the study because with qualitative data, quantitative results would be better understood and explained. In qualitative phase of the study, purposive sampling, particularly maximum variation sampling with grade level as the unit, was employed to have diversity in findings. Two pairs of students were selected from first grade level and fourth grade level from METU and YTU among the students who had reported that they had instructors in their Facebook account (item 10); believed that every computer education and instructional technology faculty should have a Facebook account (item 11); and believed that Facebook can be used for educational purposes (item 12). As qualitative data collection instrument, a structured interview consisting of four questions was developed and also conducted by two researchers. It was intended to gather in-depth data on students' opinions about the use of Facebook as a professional development tool with these four interview questions: "why do you use Facebook?"; "what do you share with your instructors on Facebook and how this contributes your relationships with your instructors?"; what might be the effects of using Facebook for communicating with your instructors during your professional life?"; and "how can you utilize Facebook in your future profession as an information technology teacher?". The data collected through this interview were analyzed by performing content analysis. Transcribed data were coded and a code list was revealed with three main categories as; communication, sharing, and socializing. Therefore these findings had indicated that preservice information technology teachers believe in the effect and benefits of Facebook as an online social network on their professional development. Their Facebook usage for communicating with academics or teachers from the same profession, sharing problems with experts or sharing knowledge with students, and socializing via groups will properly contribute to their professional development both during and after their undergraduate education.

As a conclusion, Facebook may be used as a professional development tool for preservice information technology teachers since they perceive the effectiveness of Facebook in their communication, sharing and socializing with the groups of people in their profession. For the future studies, we should investigate the most effective methods for utilizing Facebook or other online social networks to improve learning and teaching.