Examination of University Students' Perceptions of Online Social Capital

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ABSTRACT
This study was designed using a quantitative research approach to determine university students' perceptions of their online social capital levels, employing a survey model. The research was conducted with 406 undergraduate students studying at a university. Participants were selected through a simple random sampling method. Research data were collected using the Online Social Capital Scale. The results revealed that university students' overall online social capital levels were at a neutral level. It was observed that students expressed disagreement in the bonding social capital sub-dimension, while they reported a neutral level of perception in the bridging social capital sub-dimension. These results highlight the importance of educators viewing social networks not merely as tools for information sharing, but as interactive spaces where students can learn from and support one another.
Keywords: Online Social Capital, Social Network, Student.

INTRODUCTION

In today's rapidly digitalizing society, individuals' social capital is shaped not only through face-to-face interactions but also via online platforms. The opportunities offered by digital networks have significantly transformed the accessibility and distribution of social resources, leading to an increase in studies focusing on online social capital perceptions, particularly among young adults such as university students (Ellison, Steinfield, & Lampe, 2007; Valenzuela, Park, & Kee, 2009). University students actively use digital networks in both their academic and social lives to access information, support, and new relationships; this, in turn, plays a crucial role in the accumulation of their online social capital.

The concept of social capital is defined as the resources and support systems that individuals can access through their social networks (Coleman, 1988; Putnam, 2000). While early studies approached social capital within the context of strengthening social ties and interpersonal relationships, the increasing prevalence of digital platforms today has necessitated a reinterpretation of this concept (Lin, 2001; Marsden & Campbell, 1984). In particular, the use of digital technologies accelerates information exchange among individuals and fosters the emergence of new forms of social capital within online communities (Boyd & Ellison, 2008; Haythornthwaite, 2005). Research has shown that digital networks not only have the potential to enhance social capital but also play a significant role in individuals' identity formation and social support mechanisms (Burt, 1992; Venkatesh et al., 2003).

University students, as active users of the digital age, perceive social networking platforms as sources of information, support, and belonging (Lee, 2012; Park, 2009). In particular, social media sites and online forums play a significant role in their academic and social lives. Research has shown that friendships developed on online platforms can positively influence students' academic performance and strengthen their sense of belonging within school communities (Hampton, Sessions, & Her, 2011; Valenzuela, Park, & Kee, 2009). These digital dynamics shape students' perceptions of social capital from various perspectives, fostering diversity in personal trust, social connections, and access to information (Li & Bernoff, 2011). Many scholars have noted that social media platforms facilitate information sharing among students, thereby promoting both academic and social engagement, while also cautioning that excessive use of digital networks may lead to negative consequences such as addiction, attention disorders, and social isolation (Şahin, 2017; Yığman, 2021).

Online networks have emerged as an important tool in determining individuals' levels of social participation. In particular, interactions conducted through digital platforms allow for the development of alternative forms of communication alongside traditional social ties (Aral, Muchnik, & Sundararajan, 2009). The use of digital networks by university students in their academic and social lives enhances interaction among individuals from diverse cultural and geographical backgrounds, thereby contributing to the diversification of social capital (Lee, 2012; Park, 2009; Phua, Jin, & Kim, 2020). Moreover, the literature emphasizes that experiences shared on online platforms positively contribute to individuals' socio-emotional well-being and academic performance

(Junco, 2012; Gonzales & Hancock, 2021). In this context, the broad communication opportunities provided by digital networks strengthen students' social connectedness while also fostering greater civic participation.

Digital networks and social media platforms have profoundly transformed the ways individuals build, maintain, and reshape their social connections. University students are at the center of this transformation, fulfilling their academic, social, and emotional needs through digital platforms. In particular, tools such as Facebook, Instagram, WhatsApp, and more recently TikTok, play an active role in the formation of both strong ties (bonding) and weak ties (bridging) (Ellison, Steinfield, & Lampe, 2007; Burke, Marlow, & Lento, 2010; Zhu, Chen, & Evans, 2020). In this context, online social capital provides a valuable conceptual framework for understanding the extent to which individuals can access support, trust, and information resources in the digital realm (Putnam, 2000; Lin, 2001; Phua, Jin, & Kim, 2020). Recent studies further demonstrate that digital interactions enhance university students' sense of belonging, well-being, and academic motivation (Gonzales & Hancock, 2021; Islam & Widin, 2022).

In today's world, where digitalization permeates every aspect of individual and social life, social relationships are being reshaped within online environments. University students, in particular, access key components of social capital—such as information, emotional support, belonging, and trust—through their digital interactions on social networks. Within this context, online social capital has emerged as a growing area of research. Moreover, with the increasing prevalence of online learning environments, university students' social interactions on digital platforms have gained importance not only in terms of social relationships but also within the context of learning processes and digital pedagogy. In this regard, identifying university students' levels of online social capital is important for understanding the effects of digital interactions on social capital and for deriving implications for online learning environments and digital pedagogy based on the findings. Although the literature includes an increasing number of studies on the concept of online social capital, data concerning how university students in Türkiye experience and utilize these digital networks remain limited. The purpose of this study is to determine the levels of online social capital among university students. Within this general framework, the study seeks to answer the following research questions:
- What are university students' perceptions of their levels of online social capital?
- Is there a significant difference between university students' levels of online social capital and their gender, academic department, and daily social media usage time?

METHODOLOGY
This study was designed using a quantitative approach to determine university students' perceptions of their levels of online social capital. The quantitative research method is appropriate for examining measurable aspects of social behaviors and obtaining generalizable findings (Creswell, 2014). The research employs a survey model, which is a method used to describe the current state of a group or population at a specific point in time (Fraenkel, Wallen, & Hyun, 2012). This model aims to present and analyze the existing situation in detail regarding the research topic (Karasar, 2009).

Population and Sample
This study was conducted with 406 undergraduate students enrolled at a public university in Türkiye to determine their perceptions of online social capital levels. Participants were selected using a simple random sampling method, in which each member of the population has an equal chance of being chosen (Creswell, 2014). In this research, students from eight randomly selected departments—Geography, Child Development, English Language and Literature, Psychology, Sociology, History, Turkish Language and Literature, and Nursing—were included. Mahalanobis distances were calculated to check for outliers, and 12 questionnaires were found to contain erroneous data and were therefore excluded from the analysis.
When examining the demographic variables of the participants, it was found that 78.7% of the students were female, while 21.3% were male. In terms of academic departments, the participants were distributed as follows: Child Development (25.4%), English Language and Literature (23.6%), Turkish Language and Literature (15.0%), Geography (8.6%), Nursing (9.1%), Psychology (6.1%), Sociology (6.1%), and History (6.1%).

Data Collection Tools
In this study, data were collected using two instruments: the Demographic Information Form and the Online Social Capital Scale.

Online Social Capital Scale
The Online Social Capital Scale, developed by Williams (2006), was prepared in a 5-point Likert format and later adapted into Turkish by Mumcu (2021). The scale consists of 20 items grouped under two factors: Bonding Social Capital (10 items) and Bridging Social Capital (10 items). The overall Cronbach's Alpha reliability

coefficient of the scale was found to be .887. For each sub-dimension, the internal consistency coefficients were .809 for Bonding Social Capital and .885 for Bridging Social Capital. Additionally, to evaluate students' perceptions of online social capital based on the arithmetic means obtained from the 5-point Likert-type responses. Accordingly, the following intervals were used for interpretation: Strongly Disagree (1.00–1.80), Disagree (1.81–2.60), Neutral (2.61–3.40), Agree (3.41–4.20), Strongly Agree (4.21–5.00).

In order to test the suitability of the data for factor analysis, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity were conducted on the scale used in the study (Table 1).

Table 1. KMO and Bartlett's Test Results for the Scale Used in the Study

Scale	Kaiser-Meyer-Olkin (KMO)	Bartlett Küresellik Testi	sig.
Online Social Capital Scale	.907	3274.178	<.001

According to Table 1, the Kaiser-Meyer-Olkin (KMO) value for the Online Social Capital Scale was found to be .907. Considering that KMO values between 0.50 and 1.00 are regarded as acceptable for factor analysis (Altunışık et al., 2010, p. 266), the data structure was deemed adequate for conducting factor analysis. Regarding Bartlett's Test of Sphericity, the chi-square value was calculated as $\chi^2 = 3274.178$, which was statistically significant at the .01 level (sig. < .001). This result indicates that the data are drawn from a multivariate normal distribution, thereby fulfilling another prerequisite for the applicability of factor analysis (Çokluk et al., 2010). Furthermore, the normality values for the Online Social Capital Scale used in the study are presented in Table 2.

Table 2. Normality Values of the Online Social Capital Scale

Statistic	Value
Z value (Skewness)	-.090
Z value (Kurtosis)	-.170
Kolmogorov-Smirnov (K-S) Test	.066
p-value	p .007

According to Table 2, the descriptive statistics and Kolmogorov-Smirnov (K-S) test results related to the normality characteristics of the Online Social Capital Scale were examined. The skewness value was calculated as -0.090. A skewness value between -1 and +1 indicates that the data are approximately normally distributed (Tabachnick & Fidell, 2013). This result suggests that there is no significant skewness in the dataset. The kurtosis value was found to be -0.170. Since the kurtosis value also falls within the acceptable range of -1 to +1, it further supports the normality of the distribution. This indicates that the data do not exhibit excessive peakedness or flatness. The Kolmogorov-Smirnov (K-S) test yielded a result of D(401) = 0.066, p = 0.007. Since the p-value is less than .05, the null hypothesis of normal distribution is rejected. However, the K-S test is known to be highly sensitive to minor deviations from normality in large samples (N > 300) and therefore may not be reliable when used alone (Field, 2009). Taking into account the skewness and kurtosis values, it can be stated that the data are approximately normally distributed. Moreover, to confirm the assumption of normality—especially when parametric tests are to be used—graphical methods such as histograms and Q-Q plots were also employed. These graphical representations are shown in Figure 1 below.
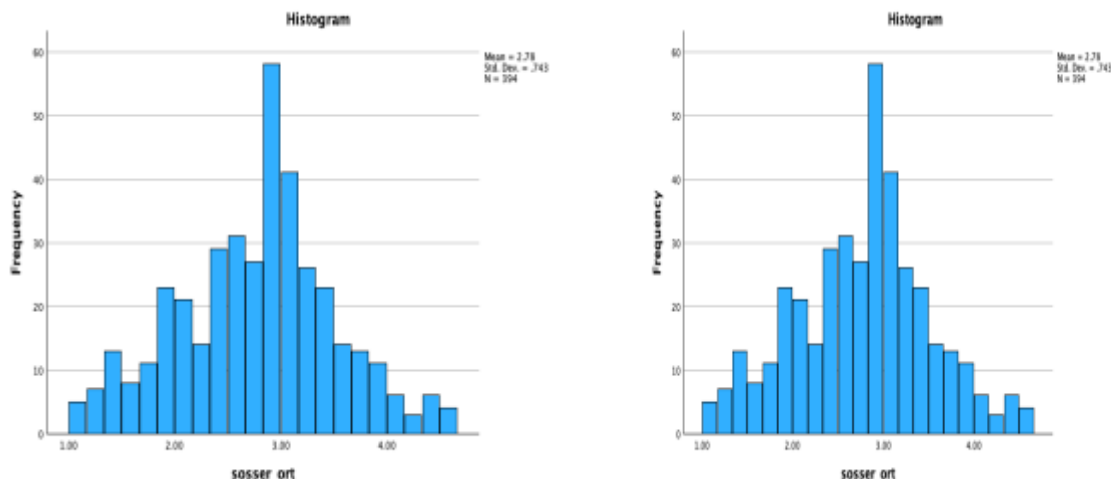

Figure 1. Histogram and Q-Q Plot of the Online Social Capital Scale

In Figure 1, a histogram and Q-Q plot are presented to evaluate the normal distribution of the Online Social Capital Scale. The histogram shows a distribution resembling a bell curve, indicating an approximately normal distribution. The mean value was reported as 2.78, with a standard deviation of 0.743. The distribution appears to be slightly positively skewed; however, there is no evidence of a serious violation of the normality assumption. Moreover, the distribution appears homogeneous, with no significant clustering of extreme values. The Q-Q plot was used to assess how closely the observed data align with a theoretical normal distribution. It was observed that most data points clustered around the normality line, although some noticeable deviations occurred at the lower and upper extremes. This suggests a slight skewness, yet the overall distribution is still acceptably close to normal. When the histogram and Q-Q plot are evaluated together, it can be concluded that the dataset exhibits an approximately normal distribution. Therefore, the use of parametric tests in the subsequent analyses is considered appropriate. The Confirmatory Factor Analysis (CFA) results for the scale used in the study are presented in Table 3.

Table 3. Confirmatory Factor Analysis Results for the Online Social Capital Scale

Fit Index	Online Social Capital CFA	Good Fit Criteria	Acceptable Fit Criteria
X^2 / sd	3.69	≤3	≤4-5
AGFI	0.83	≥0.90	0.89-0.85
GFI	0.86	≥0.90	0.89-0.85
NFI	0.93	≥0.95	0.94-0.90
CFI	0.95	≥0.97	≤ 0.95
RMSEA	0.08	≤0.05	0.06-0.08
SRMR	0.08	≤0.05	0.06-0.08

In order to verify the factor structure of the Online Social Capital Scale, a Confirmatory Factor Analysis (CFA) was conducted. The results indicated a Chi-square value of X^2 = 3.69, df = 34, p = 0.00. The fit index values were found as follows: RMSEA = 0.08, CFI = 0.95, GFI = 0.86, AGFI = 0.83, SRMR = 0.08, and NFI = 0.93. Based on these results, the X^2/df ratio falls within the acceptable range, and the other fit indices are generally at acceptable or near-good levels. Considering that modifications were made between items 1–2, 19–20, and 15–16, the observed improvements in the fit indices indicate that the model achieved a better fit structure. After modification, the GFI and AGFI values remained within acceptable limits, while the NFI and CFI values reached satisfactory levels. The RMSEA and SRMR values being within the acceptable range also demonstrate that the model is generally consistent with the data. The X^2/df ratio of 3.69 confirms that the model represents an acceptable structure.

Data Collection Process
Prior to conducting the research, ethical approval was obtained from the Ethics Committee of the university where the researchers are employed. After receiving approval, the researchers contacted faculty members teaching in various departments to inform them about the study and to identify suitable classes and times for data collection. Subsequently, during the scheduled sessions, the researchers visited the selected classes and distributed the questionnaire electronically via Microsoft Forms. The data collection was conducted class by class, and students were informed about the purpose of the study, informed consent, confidentiality, and voluntary participation. No personal identifying information was requested from participants. The data were collected during the Spring semester of the 2024–2025 academic year, and each session took approximately 15 minutes to complete.

Data Analysis
The collected data were analyzed using SPSS 29 statistical software. First, the data were cleaned by removing erroneous and outlier values to ensure suitability for analysis. Normality tests were then conducted to determine whether the data met the assumptions for parametric analyses. The Confirmatory Factor Analysis (CFA) of the scale was performed using LISREL 8.8, and model fit indices were evaluated. Descriptive statistics, including frequency, percentage, mean, and standard deviation, were computed. To examine the relationships between the overall scale, its subdimensions, and demographic variables, parametric tests such as t-tests and ANOVA were applied. The significance levels were set at p ≤ .05 and p ≤ .01 for all statistical analyses.

RESULTS
In this study, university students' perceptions regarding their overall levels of online social capital, as well as the subdimensions of Bonding Social Capital and Bridging Social Capital, were examined. Descriptive analyses for

the overall scale and its subdimensions are presented in Table 4.

Table 4. Descriptive Statistics for the Overall Scale and Its Subdimensions

	N	Min.	Max.	x̄	SD
Online Social Capital	394	1.00	4.60	2.77	.743
Bonding Social Capital	394	1.00	4.60	2.53	.813
Bridging Social Capital	394	1.00	5.00	3.02	.906

When Table 4 is examined, it is seen that for the overall scale ($\bar{x}$ = 2.77, SD = 0.743), students' levels of online social capital are at a neutral level. For the Bonding Social Capital sub-dimension ($\bar{x}$ = 2.53, SD = 0.813), students reported a disagree level of perception. In contrast, for the Bridging Social Capital sub-dimension ($\bar{x}$ = 3.02, SD = 0.906), students' responses were at a neutral level. Descriptive analyses related to the Bonding Social Capital sub-dimension are presented in Table 5.

Table 5. Descriptive Statistics for the Bonding Social Capital Subdimension

Items in the Bonding Social Capital Subdimension	Statistic		
	N	X̄	SD
1. There are a few people on social media whom I believe would help me solve my problems.	394	2.72	1.286
2. There is someone on social media whose advice I would seek when making very important decisions.	394	2.74	1.356
3. There is no one on social media with whom I feel comfortable discussing my personal problems.	394	2.69	1.384
4. When I feel lonely, there are a few people on social media I can talk to.	394	2.76	1.381
5. If I urgently needed to borrow money, I know someone on social media who could help me.	394	2.15	1.369
6. The people I communicate with on social media would risk their reputation for me.	394	2.15	1.278
7. The people I interact with on social media would provide a good job reference for me.	394	2.44	1.295
8. The people I communicate with on social media would share their last money with me.	394	2.22	1.328
9. I don't know the people on social media well enough to ask them to do anything important for me.	394	2.68	1.378
10. The people I interact with on social media would help me if I were treated unfairly.	394	2.79	1.356

When Table 5 is examined, it is observed that the mean scores for the Bonding Social Capital sub-dimension range between 2.15 and 2.79. The item with the highest mean score ($\bar{x}$ = 2.79) is "People I communicate with on social media would help me if I were treated unfairly." Similarly, the statements "There is someone on social media whose advice I would seek when making important decisions" ($\bar{x}$ = 2.74) and "There is no one on social media with whom I can comfortably talk about my personal problems" ($\bar{x}$ = 2.69) also have relatively higher mean values. These results suggest that individuals receive a certain degree of social support through social media, although they may be hesitant to share private matters. Among the lowest-scoring items are "If I urgently needed to borrow money, I know someone on social media who could help me" ($\bar{x}$ = 2.15) and "People I communicate with on social media would risk their reputation for me" ($\bar{x}$ = 2.15). These findings indicate that students are generally reluctant to take financial or reputational risks within their social media relationships. Descriptive analyses related to the Bridging Social Capital sub-dimension are presented in Table 6.

Table 6. Descriptive Statistics for the Bridging Social Capital Subdimension

Items in the Bridging Social Capital Subdimension	Statistic		
	N	X̄	SD
11. Communicating with people on social media makes me interested in what is happening outside the place I live.	394	3.22	1.295
12. Communicating with people on social media inspires me to try new things.	394	3.08	1.317
13. Communicating with people on social media increases my interest in what people different from me think.	394	3.15	1.320
14. Communicating with people on social media makes me curious about other places in the world.	394	3.56	1.285

15. Communicating with people on social media makes me feel like I am part of a larger community.	394	2.98	1.265
16. Communicating with people on social media makes me feel connected to the bigger picture.	394	2.85	1.290
17. Communicating with people on social media reminds me that everyone in the world is connected.	394	3.20	1.276
18. I am willing to spend time supporting community events on social media.	394	2.94	1.255
19. Communicating with people on social media helps me find new people to talk to.	394	2.91	1.336
20. I always interact with new people on social media.	394	2.38	1.300

According to Table 6, the mean scores for the Bridging Social Capital sub-dimension range from 2.38 to 3.56. The highest mean score ($\bar{x}$ = 3.56) belongs to the item "Communicating with people on social media makes me curious about other places in the world." Similarly, the statements "Communicating with people on social media makes me interested in what happens outside the place where I live" ($\bar{x}$ = 3.22) and "Communicating with people on social media reminds me that everyone in the world is connected" ($\bar{x}$ = 3.20) also have relatively high mean scores. These findings indicate that social media contributes positively to increasing individuals' cultural awareness. On the other hand, the item with the lowest mean score ($\bar{x}$ = 2.38) is "I always communicate with new people on social media." Similarly, "Communicating with people on social media makes me feel connected to the bigger picture" ($\bar{x}$ = 2.85) and "Communicating with people on social media helps me find new people to talk to" ($\bar{x}$ = 2.91) also received lower mean values. This suggests that while students use social media as a means of interaction and cultural exchange, their sense of belonging to a broader community remains at a moderate level. The t-test results comparing students' views on the overall scale and sub-dimensions according to gender are presented in Table 7.

Table 7. Students' Perceptions on the Total Scale and Subdimensions According to Gender

Subscale	Gender	N	$\overline{X}$	SD	sd	Levene	Sig.	t	Sig.
Online Social Capital	Female	308	2.77	.759	392	.455	.500	-.161	.436
	Male	86	2.79	.683				-.171	
Bonding Social Capital	Female	308	2.54	823	392	1.004	.317	.706	.240
	Male	86	2.47	.782				.727	
Bridging Social Capital	Female	308	3.00	.925	392	.455	.500	-.896	.186
	Male	86	3.10	.835				-.949	

p<.05*

According to Table 7, the mean score for female students on the overall scale was $\bar{x}$ = 2.77, while for male students it was $\bar{x}$ = 2.79. The t-test results (t = -0.161, p = .436) indicate that there is no significant difference between genders (p > .05). In the Bonding Social Capital sub-dimension, the mean score of female students ($\bar{x}$ = 2.54) was slightly higher than that of male students ($\bar{x}$ = 2.47). However, the t-test result (t = 0.706, p = .240) again revealed no statistically significant difference between the two groups (p > .05). Similarly, in the Bridging Social Capital sub-dimension, the mean score for female students ($\bar{x}$ = 3.00) was slightly lower than that for male students ($\bar{x}$ = 3.10). The t-test result (t = -0.896, p = .186) confirmed that this difference was not statistically significant (p > .05). Overall, these findings suggest that both male and female students exhibit similar levels of online social capital, indicating that gender does not play a determining role in the formation or perception of social capital through social media. The ANOVA test results regarding students' views on the overall scale and sub-dimensions according to academic department are presented in Table 8.

Table 8. Students' Perceptions on the Total Scale and Subdimensions According to Academic Department

Subscale	Department	N	$\overline{X}$	SD	Source	Sum of Squares	sd	Mean Square	F	p	scheffe
Online Social Capital	Geography	34	2.5618	.705	Between	6.555	7	.936			
	Child	100	2.7510	.795	Within G.	210.432	386	.545			
	English Language & Lit.	93	2.8538	.715	Total	216.987	393		1.718	.103	-
	Psychology	24	2.4938	.760							

	Sociology	24	3.0583	.887								
	History	24	2.8857	.860								
	Turkish Language	59	2.8263	.604								
	Nursing	36	2.7208	.648								
	Levene: 1.159		p=.356									
	Geography	34	2.4647	.856	Between	6.759	7	.966				
	Child	100	2.4140	.874	Within G.	253.568	386	.657				
	English Language & Lit.	93	2.5763	.756	Total	260.328	393					
Bonding Social Capital	Psychology	24	2.2708	.866						1.470	.176	-
	Sociology	24	2.7708	.917								
	History	24	2.7833	.884								
	Turkish Language & Lit.	59	2.6237	.708								
	Nursing	36	2.5139	.702								
	Levene: 1.546		p=.2150									
	Geography	34	2.6588	.752	Between	11.123	7	1.589				
	Child	100	3.0880	.960	Within G.	311.837	386	.808				
	English Language & Lit.	93	3.1312	.878	Total	322.960	393					
Bridging Social Capital	Psychology	24	2.7167	1.02						1.967	.058	-
	Sociology	24	3.3458	.994								
	History	24	2.9921	1.05								
	Turkish Language	59	3.0288	.784								
	Nursing	36	2.9278	.802								
	Levene: 1.262		p=.268									

p<.05*

According to Table 8, the mean scores across departments for the overall scale ranged from 2.49 to 3.05. The Sociology department had the highest mean score ($\bar{x}$ = 3.05, SD = .887), while the Psychology department had the lowest ($\bar{x}$ = 2.49, ss = .760). The results of the ANOVA test (F = 1.718, p = .103) indicated that there was no statistically significant difference among departments (p > .05). These findings suggest that students' levels of Online Social Capital did not differ significantly according to their academic department. In the Bonding Social Capital sub-dimension, departmental mean scores ranged between 2.27 and 2.78. The highest mean belonged to the History department ($\bar{x}$ = 2.78, SD = .884), while the Psychology department again had the lowest ($\bar{x}$ = 2.27, SD = .866). The ANOVA test (F = 1.470, p = .176) revealed no statistically significant difference between departments (p > .05). These results indicate that the department variable was not a determining factor in students' bonding relationships established through social media. In the Bridging Social Capital sub-dimension, mean scores varied between 2.65 and 3.34. The Sociology department had the highest mean ($\bar{x}$ = 3.34, SD = .994), whereas the Geography department had the lowest ($\bar{x}$ = 2.65, SD = .752). Although the ANOVA test (F = 1.967, p = .058) approached significance at the 10% level (p < .10), it was not significant at the 5% threshold (p > .05). This finding suggests that students' levels of cultural interaction and interest in different cultures through social media did not significantly differ by department. The ANOVA test results regarding students' opinions on the overall scale and its sub-dimensions based on daily social media usage time are presented in Table 9.

Table 9. Students' Perceptions on the Total Scale and Subdimensions According to Daily Social Media Usage Time

Subscale	Daily Social Media Usage Duration	N	$\overline{X}$	SD	Source	Sum of Squares	sd	Mean Square	F	p	scheffe
Online Social Capital	2-4 hours	215	2.80	.760	Between	2.685	3	.895			
	4-6 hours	116	2.76	.690	Within G.	214.302	390	.549			
	6-8 hours	40	2.57	.825	Total	216.987	393		1.629	.182	-
	8 hours or more	23	2.97	.641							
	Levene: 1.884			p=.132							

Bonding Social Capital	2-4 hours	21	2.58	.803	Between	2.387	3	.796			
	4-6 hours	11	2.47	.801	Within G.	257.941	390	.661			
	6-8 hours	40	2.36	.880	Total	260.328	393		1.203	.308	-
	8 hours or more	23	2.64	.842							
	Levene: .222		p= .881								
Bridging Social Capital	2-4 hours	21	3.02	.938	Between	4.067	3	1.356			
	4-6 hours	11	3.04	.861	Within G.	318.893	390	.818			
	6-8 hours	40	2.79	.945	Total	322.960	393		1.658	.176	-
	8 hours or more	23	3.30	.683							
	Levene: 1.510		p=.211								

p<.05*

According to Table 9, the mean scores for overall online social capital varied between 2.57 and 2.97 according to students' daily social media usage duration. The highest mean was observed among students who used social media for 8 hours or more ($\bar{x}$ = 2.97, ss = .641), while the lowest belonged to those who used it for 6–8 hours ($\bar{x}$ = 2.57, ss = .825). The ANOVA test results (F = 1.629, p = .182) revealed no statistically significant difference between groups (p > .05). These findings suggest that daily social media usage time does not have a significant effect on students' overall online social capital levels. In the Bonding Social Capital sub-dimension, mean scores ranged from 2.36 to 2.64. The highest average again belonged to students who used social media for 8 hours or more ($\bar{x}$ = 2.64, ss = .842), while the lowest mean was found among those using it for 6–8 hours ($\bar{x}$ = 2.36, ss = .880). The ANOVA test results (F = 1.203, p = .308) indicated no statistically significant difference between the groups (p > .05). Thus, daily social media use time did not create a meaningful variation in Bonding Social Capital. Regarding the Bridging Social Capital sub-dimension, mean scores varied between 2.79 and 3.30. The highest mean belonged to students who used social media for 8 hours or more ($\bar{x}$ = 3.30, ss = .683), while the lowest belonged to those using it for 6–8 hours ($\bar{x}$ = 2.79, ss = .945). Although these findings show a tendency for higher bridging capital with increased social media use, the ANOVA results (F = 1.658, p = .176) confirmed that this difference was not statistically significant (p > .05). Overall, while students who spend more time on social media may have slightly higher bridging social capital levels, the effect of social media usage duration on both bonding and bridging dimensions was not significant.

DISCUSSION
The present study aimed to determine university students' levels of online social capital in relation to variables such as gender, academic department, and daily social media usage time. The results indicate that university students' online social capital levels are generally at the undecided level. The findings revealed that students' overall levels of online social capital were at a moderate (neutral) level. Students' responses in the bonding social capital sub-dimension indicated a tendency toward disagreement, suggesting that relationships formed through social media involve limited trust, closeness, and mutual support. In contrast, the bridging social capital sub-dimension was found to be at a neutral level, implying that while social networks provide potential opportunities for broader interaction, these interactions are not yet strongly established. It can be argued that the generally undecided level of online social capital among university students is closely related to the nature of social media use. The findings show that students primarily engage in information sharing, everyday interactions, and relationships based on weak ties on social media platforms, whereas bonding social capital that requires trust and emotional closeness develops only to a limited extent. From a theoretical perspective, this situation becomes more meaningful when interpreted within Putnam's distinction between bonding and bridging social capital. Accordingly, social media environments provide individuals with access to information and connections to broader social networks through weak ties, while offering limited support for the development of strong ties that require trust, reciprocity, and emotional closeness. This finding is consistent with previous studies suggesting that social media tends to support social capital mainly through information exchange and weak ties rather than deepening close interpersonal relationships (Ellison, Steinfield, & Lampe, 2007; Valenzuela, Park, & Kee, 2009). Moreover, in online learning environments, the development of social capital depends less on the technology used and more on pedagogical designs with high levels of interaction, collaborative learning activities, and learning processes that encourage meaningful social interaction among students (Hrastinski, 2009; Garrison, Anderson, & Archer, 2010).

In the Bonding Social Capital sub-dimension, the item with the highest mean score was "The people I communicate with on social media help me when I experience an injustice." Similarly, the statements "I have someone to consult when making very important decisions on social media" and "There is no one on social

media with whom I can comfortably talk about my personal problems" also had relatively high mean scores. This suggests that individuals receive a certain level of support through social media, yet they may hesitate to share personal or sensitive matters. The items with the lowest means were "If I urgently need to borrow money, I know someone on social media who can help me" and "The people I communicate with on social media would risk their reputation for me." These findings indicate that students tend to avoid taking financial or reputational risks in their online relationships. Similarly, Ellison, Steinfield, and Lampe (2007) reported that online networks offer informational and emotional support but remain limited in fostering strong, reciprocal bonds. Therefore, the current study aligns with prior research, suggesting that social media primarily facilitates the exchange of information and ideas among students but is less effective in deepening bonding social capital.

In the Bridging Social Capital sub-dimension, the item with the highest mean score was "Communicating with people on social media makes me curious about other parts of the world." Similarly, the statements "Communicating with people on social media helps me become interested in what is happening outside the place where I live" and "Communicating with people on social media reminds me that everyone in the world is connected" also received high mean scores. This finding suggests that social media plays an effective role in enhancing individuals' cultural awareness. On the other hand, the items with the lowest mean scores — "I always communicate with new people on social media," "Communicating with people on social media makes me feel connected to the bigger picture," and "Communicating with people on social media helps me find new people to talk to" — indicate that individuals' sense of belonging to a larger community through social media remains moderate. Similarly, Valenzuela, Park, and Kee (2009) as well as Kwon and Wen (2010) emphasized that social networking platforms can broaden individuals' cultural awareness and cognitive horizons, yet remain limited in fostering strong, enduring social ties.

The findings of the study revealed that students' levels of online social capital did not differ significantly according to their academic departments. While the overall scale showed the highest mean score among Sociology students and the lowest among Psychology students, these differences were not statistically significant, indicating that departmental variations in social media use are relatively minor. In the Bonding Social Capital sub-dimension, the History department exhibited the highest mean score, which may reflect history students' stronger orientation toward community belonging and solidarity in their social interactions; however, the absence of a statistically significant difference suggests that this tendency is not a strong determinant. Similarly, in the Bridging Social Capital sub-dimension, students' levels of cultural awareness and interaction through social media appeared to be independent of their academic departments. This finding aligns with the results of Ellison, Steinfield, and Lampe (2007) and Kwon and Wen (2010), who emphasized that social media interactions are shaped more by individual online experiences than by academic or professional identity.

The findings of the study revealed that students' daily social media usage time did not create a statistically significant difference in their levels of online social capital. Although students who used social media for eight hours or more had slightly higher mean scores than other groups, this difference was not statistically significant. This suggests that the amount of time spent on social media alone does not enhance social capital; rather, the quality and nature of engagement play a more decisive role. Similarly, Ellison, Steinfield, and Lampe (2007) emphasized that time spent on social media contributes to social capital only when it involves active participation and interaction. Ahn (2012) also noted that the frequency of social media use does not show a linear relationship with social capital levels, highlighting that active sharing, rather than passive browsing, is more effective. Supporting this, Appel, Marker, and Gnambs (2020) and Błachnio, Przepiorka, and Pantic (2016) suggested that intensive social media use may increase superficial interactions rather than improving the quality of social relationships.

LIMITATIONS

This study has several limitations. First, the sample is limited to students enrolled at a single university, which may restrict the generalizability of the findings to other institutional and contextual settings. In addition, the use of self-report data may introduce response bias, as participants' answers are based on their perceptions and may be influenced by tendencies toward socially desirable responding. Furthermore, conducting the study within a single-university context limits the ability to compare manifestations of online social capital across different institutional and cultural environments. Therefore, future research involving multiple universities, larger samples, and the use of multiple data collection methods is recommended to achieve a more comprehensive understanding of online social capital.

RECOMMENDATIONS

Based on the findings of this study, it is recommended that universities create digital environments where

students can collaborate, participate in joint projects, and build trust-based communication online. Educators should view social media not merely as a tool for information sharing but as an interactive space that enables peer learning and mutual support among students. To this end, integrating topics such as digital citizenship, online ethics, and responsible media use into course content can help encourage students to use social media in a more meaningful, responsible, and socially engaging manner that strengthens their social bonds.

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