

## TWITTER USAGE OF UNIVERSITIES IN TURKEY

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### ABSTRACT

Universities are among the users of the most popular social media networks. Usage of social media by especially students and many other people and institutions, which constitutes the target audience for universities, encourages the universities to effectively use this environment. Twitter is among these social media networks which facilitate the communication by providing a faster, easier and economical means to interact with target audience in different parts of the world. In order to contribute to effective use of Twitter, tweets of the top ten most followed state and foundation universities in Twitter were examined in our research. These tweets were then compared with each other by their subjects, by tools they use, and by the participation of users to the tweets posted. Differences among them were attempted to be identified by using the content analysis method.

**Keywords:** Internet, Twitter, Social Media

### 1. INTRODUCTION

“Technology provides society with new opportunities to design all things well.” (İşman, 2012) Technology’s new opportunities are learned quickly and the usage of computer and internet is increasing more and more ever day in Turkey too. Following social media is one of the main reasons of internet usage. According to the results of Survey on Information and Communication Technology in Households conducted by Turkish Statistical Institute (TÜİK), following social media is ranked 6<sup>th</sup> among other reasons of personal internet usage of individuals who used internet in January-March 2012.

According to the survey, individuals are using internet for reading and downloading online news, newspapers and magazines (72.5%), sending/receiving e-mails (66.8%), searching information about the products and services (61.3%), downloading or playing games, music, movies, images (49.1%), and then for participating in the chat rooms, blogs, newsgroups or sending messages to online discussion forums and instant messaging (41.6%). (Sending messages to social groups such as Facebook, Twitter, chatting, real-time messaging Msn, Skype etc.) (TÜİK, 2012)

History of social media goes back to 1979 to Usenet, established by Tom Truscott and Jim Ellis by which the articles were sent to the newsgroups. Whereas the history of modern social media in which the users may effectively participate, goes back to 1997, to SixDegrees. (Hazar, 2011)

Social media are among the most popular web sites today. According to Alexa.com, Facebook is the 2<sup>nd</sup> among the most popular websites worldwide and YouTube ranks 3<sup>rd</sup>. Twitter comes 10<sup>th</sup> in the list. (Alexa, 2013) Whereas in Turkey, Facebook is at the top, YouTube is placed 3<sup>rd</sup> and the Twitter is at 13<sup>th</sup> place. (Alexa, 2013) “Social media are Internet platforms designed to disseminate information or messages through social interactions, using highly accessible and scalable publishing techniques. Social media is composed of content (information) and social interaction interface (intimate community engagement and social viral activity).” (Li, Shiu, 2012) “Social media is a term, consisting of online tools and websites which build interaction by providing the users to share information, ideas, interests and data. As obvious from its definition, social media is an interface in order to construct a community and network by encouraging the participation and connection within.” (Saymer, 2008) Social Media is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content.” (Kaplan, Haenlein, 2010) To fall under social media definition an application or a website must have independent users from its publisher, have user related content, establish interaction among its users and must not be limited to a time and place set. Social media is a means of sharing, interaction and communication, in which the discussion is fundamental. (Erkul, 2009)

“Social network sites are also used synonymous with the more broad-based term ‘social media’ by some authors” (Lasorsa, Lewis, Holton, 2012) Social network sites is described as follows: “web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site.” by Boyd and Ellison. (Boyd, Ellison, 2007)

Besides being a communication channel, social media can act as a catalyzer for other channels as well. (Güçdemir, 2010) For instance followers can access the website belong the link when links, which is on tweets, click by followers who interest with the subject. Individuals are no longer just watchers or readers but they transform into players who directly spread information with the help of social media. (Yağmurlu, 2011) Social, video, image and information sharing networks as well as microblogs such as Twitter are listed among the social media application.

Twitter, one of the most popular social media, showed up in 2006 and it was accepted as “real-time information network” (Twitter, 2013) “short message service” or “micro-blogging” application (Lovejoy, Waters, Saxton, 2012). “Micro-blogs (e.g., Twitter) are social networking services that enable users to send and read very short messages, which are usually restricted by the number of characters in the message.” (Berthon, Pitt, Plangger, Shapiro, 2012)

“Twitter is a real-time network that allows users from across the globe to share information through private and public messages” (Waters, Jamal, 2011) Twitter has over 500 million registered users today. Some Twitter users may have millions of followers, i.e. Justin Bieber has 36 million, Lady Gaga has 35 million, Katy Perry has 33 million, Rihanna has 28 million, Barack Obama has 28 million followers. (Twitter, 2013)

Twitter users construct their own profiles, choose whom they want to follow and send their messages defined as “tweet” and capped at 140 characters in a way to be seen by their followers. Tweets posted by users appear in reverse chronological order on the user’s profile. (Rybalko, Seltzer, 2010) Messages can promptly be seen by the followers. Members of a group may be informed of whereabouts of other users and what other users do at a specific time. “Users have the capability to send messages directed to other users (i.e., @username), to “retweet” (or re-broadcast) messages originally posted by others, and to follow or engage in trending topics (i.e., #trendtopic).” (Lasorsa, Lewis, Holton, 2012)

Some Twitter terms and signs means like this; (Twitter, 2013)

-Tweet (verb): “Tweet, tweeting, tweeted. The act of posting a message, often called a "Tweet", on Twitter.”

-@: “The @ sign is used to call out usernames in Tweets. When a username is preceded by the @ sign, it becomes a link to a Twitter profile.”

-Retweet (noun): “A Tweet by another user, forwarded to you by someone you follow.”

-#: “The # symbol, called a hashtag, is used to mark keywords or topics in a Tweet. It was created organically by Twitter users as a way to categorize messages.”

“Twitter is a service for friends, family and coworkers to communicate through the exchange of quick, frequent answer to one simple question: What are you doing?” (Scott, 2009) Twitter prompts users to answer this question, “creating a constantly- updated timeline, or stream, of short messages that range from humor and musings on life to links and breaking news.” (Marwick, Boyd, 2011)

## 2. PURPOSE AND METHODOLOGY

In our research, twitter messages of most followed 10 state and foundation universities were examined. Content Analysis method, a research method defined by Berelson (1952) as “objective, systematic and quantitative description of manifest content of communications” was used in order to identify the present content. (Bilgin, 2000)

In Twitter, there are university accounts opened and operated by universities themselves as well as there are different group’s accounts which are opened and managed using the name of the universities. Scope of our research covers only official university Twitter accounts. In order to ensure that exclusively official accounts were chosen, only these Twitter accounts were included in our research which were linked in the official websites of universities and whose link were active.

There are 103 state and 65 foundation universities in Turkey according to information provided on the official website of Higher Education Council (YÖK). (YÖK, 2013) YÖK website includes the names and web addresses of all universities as well. University websites were reached by using this information in our research. (YÖK, 2013) Then simply by clicking on Twitter logos and names presented in these official websites, official university Twitter accounts were reached. Ten most followed state and foundation universities were identified and expressed in tables based on the number of followers of their accounts. Ten most followed state and foundation universities are as follows:

**Table 1: Ten most followed state universities**

University name	Number of follower
İstanbul University	12257
Middle East Technical University	10663
Istanbul Technical University	10227
Yıldız Technical University	9690
Sakarya University	9446
Bogazici University	7610
Ege University	7345
Marmara University	6670
Pamukkale University	4984
Abdullah Gül University	4498

**Table 2: Ten most followed foundation universities**

University name	Number of follower
Yeditepe University	13501
Bahçeşehir University	10653
İstanbul Bilgi University	10029
İstanbul Aydın University	7961
Bilkent University	7558
Beykent University	6822
İstanbul Kültür University	5443
Nişantaşı University	5173
Fatih University	5091
TOBB University of Economics and Technology	4857

Within the scope of the research, Twitter messages which were posted on the official university Twitter accounts between July and December 2012 were reached. Tweets posted on the first day of each month were selected and in some cases where there were no tweets on the first day, tweets of the next day were counted in. Those tweets then, which were obtained from different university accounts, were compared.

Messages posted on the Twitter accounts were examined and as a first step, it was attempted to define to which questions these messages were responding. Questions, which will then be used in our research, have been chosen based on previous article “Use of News Articles and Announcements on Official Websites of Universities”. (Yolcu, 2011) Therefore, responded questions were classified under 4 main categories based on their characteristics. Those categories are “Information about the University”, “Ways of reaching and contacting the University”, “Easier and faster access to information relating to the university and to services offered” and “Admissions to the University. Announcements and conditions to join events, services and resources”.

Questions used in the previous research were re-evaluated based on the needs of our new research and necessary amendments were made based on our assessment of which questions were responded by those new matters faced during the examination of Twitter accounts in our research but not faced while the websites were examined in the previous research. Questions for each category which will be used in our research are presented in Table 3.

**Table 3: Main subjects of tweets and matters responded therein.**  
 Questions within each category used in our research are listed below;

**A-Information about the University**

	<b>QUESTIONS ANSWERED</b>	<b>MAIN SUBJECTS OF TWEETS</b>
1	Who we are?	Name, logo, history of the university
2	What we produce as a result of works we conduct?	Publications done by researchers, research findings, awards, success stories of graduates... Success of academics and students
3	What do we do? What services we give?	-Programs offered, researches being conducted, services offered to the public, works in Public Relations and Social Responsibility Conferences and seminars, academic visits, events related with education and science
4	The infrastructure, life on campus, support services?	-Campuses, administrative units and offices, facilities on campuses, laboratories, museums, galleries, collections, botanical gardens, libraries, bookstores, shopping facilities, food services, housing opportunities, security, health services/hospital, day care, -Artistic and athletic activities on campus, student events -Support Services: counselling services, career services, facilities for the disabled... Libraries, scholarships
5	Who works at the university? What are their work principles?	Administration, administrative policy, Vision/mission and working principles, personnel policies, job opportunities, Targets retirees...

**B- Ways of reaching and contacting the University**

	<b>QUESTIONS ANSWERED</b>	<b>MAIN SUBJECTS OF TWEETS</b>
6	What are ways of reaching and contacting the university?	Contact Information (telephone, address, fax, email address), directory, map, getting to the university using public transportation, directions....

**C-Easier and faster access to information relating to the university and to services offered**

	<b>QUESTIONS ANSWERED</b>	<b>MAIN SUBJECTS OF TWEETS</b>
7	What are the media organs to reach information pertaining to the university	Magazines, Newspapers, Mail, Blog, Podcast, Social Media, Website...
8	What are practices that provide access to services and information from the University?	Being informed about services and events at the university through university's own e-mail system, SMS and website, to be able to reach desired information and to send information to the related persons, a search engine built into the website, special pages prepared for its target audience (Graduates, business world and entrepreneurs, potential students, academic staff and employees, media, students other than university students, parents and friends, visitors, Media, donators, job seekers, neighbours) Online directory, Online library catalogue ...

**D- Admissions to the University. Announcements and conditions to join events, services and resources**

	<b>QUESTIONS ANSWERED</b>	<b>MAIN SUBJECTS OF TWEETS</b>
9	How are admissions conducted?	Special pages what contain information needed by future students, admissions conditions, Fees and Scholarships, Information for those who might wish to visit the campus, Information for those who might wish to donate to the university, how to rent university facilities, campus tours...
		Informations about student registration, university presentation activities

Secondly, to what extent the means such as image, video, link, summary, @, #, e-mail address and phone number which have been used in the content of the tweets were determined. It was also determined if formal jargon was used or if there were tweets posted in languages other than Turkish.

Thirdly, it was identified to what extent the users retweeted, added to their favorites, commented/questioned the messages sent by followers and to what extent the universities responded to comments and questions posted by the followers.

The question to which our research attempts to answer is:

**QUESTION: “What are the differences of messages posted on the Twitter accounts of ten most followed state and foundation universities?”**

Examining the obtained quantitative data by using the content analysis method, above question was attempted to be answered in our research.

### 3. FINDINGS

A total of 250 tweets on state universities and 224 tweets on foundation universities were detected. Those tweets fall into three categories: “tweets posted by the universities”, “tweets posted by the university departments or university staff and retweeted by the university” and “tweets posted by other users and retweeted by the university”. Our research covers only first two categories: “tweets posted by the universities”, “tweets posted by the university departments or university staff and retweeted by the university”. In this context, 242 tweets of state and 199 tweets of foundation universities were compared with each other.

**Table 4: Most followed 10 state universities on Twitter and informations about Twitter accounts**

University name	Tweets posted by the universities	Tweets posted by the university departments or university staff and retweeted by the university	Tweets posted by other users and retweeted by the university	Total
İstanbul University	22	-	-	22
Middle East Technical University	37	2	-	39
Istanbul Technical University	10	-	-	10
Yıldız Technical University	14	7	2	23
Sakarya University	53	-	-	53
Bogazici University	10	-	5	15
Ege University	28	-	-	28
Marmara University	29	-	-	29
Pamukkale University	8	-	-	8
Abdullah Gül University	22	-	1	23
<b>Toplam</b>	233	9	8	250

**Table 5: Most followed 10 foundation universities on Twitter and informations about Twitter accounts**

University name	Tweets posted by the universities	Tweets posted by the university departments or university staff and retweeted by the university	Tweets posted by other users and retweeted by the university	Total
Yeditepe University	32	-	-	32
Bahçeşehir University	12	8	3	23
İstanbul Bilgi University	35	-	-	35
İstanbul Aydın University	9	2	-	11
Bilkent University	6	-	2	8
Beykent University	20	-	3	23
İstanbul Kültür University	20	-	3	23
Nişantaşı University	17	-	2	19
Fatih University	12	8	1	21
TOBB University of Economics and Technology	10	8	11	29
<b>Toplam</b>	173	26	25	224

Messages on Twitter accounts were examined and it was initially determined mainly what questions were attempted to be answered by these messages. It is seen from the results that most tweets provide information about the university. (Table 6) 69% of tweets posted by the state universities and 70.35% of the tweets posted by the foundation universities include information about the university.

1.24 % of the tweets posted by the state universities respond to questions “Who are we?”, whereas 8.68 % of them to “What we produce as a result of works we conduct?”, 24.79% of them to “What do we do? What services we give?”, 31.4% of them to “How are the infrastructural facilities, campus life and support services?”, 2.89% of them to “Who works at the university? What are their work principles?”. Those percentages for the corresponding questions for tweets posted by the foundation universities are 0.5%, 4.52%, % 44.72%, 19.6 % and 1% respectively.

The second matter about which tweets provided information is the ways of participating to the university (Admissions to the University. Announcements and conditions to join events, services and resources). The matter of “Invitation and conditions to joining to activities, services and opportunities” corresponds to 17.77 % of tweets posted by the state universities and 16.08% of tweets posted by the foundation universities.

Another matter, less frequent though, found in the tweets posted by the universities, which provides information is “Easier and faster access to information relating to the university and to services offered”. 3.72 % of tweets posted by the state universities and 1.5% of tweets posted by the foundation universities respond to question of “What are the media organs to reach information pertaining to the university”

One other matter less subjected in the tweets is the ways of reaching and contacting the university. In these tweets, the means of contacting with the university are reminded to users by providing phone number and e-mail address or by reinstating that it is possible to contact via social media. 0.83 % of tweets posted by the state universities and 3.52 % of tweets posted by the foundation universities respond to question of “What are ways of reaching and contacting the university?”

Furthermore, unlike the article “Use of News Articles and Announcements on Official Websites of Universities” further information such as other institutions’ activities relating to the university, scientific data, condolences and commemorations, celebrations for special days and get-well messages were encountered in tweets. 4.55 % of tweets posted by the state universities inform about other institutions’ activities relating to the university and 3.3% of them provide scientific data whereas 0.5% of tweets posted by the foundation universities inform about other institutions’ activities relating to the university, 0.5% of them provide scientific data and 4.02% of them involves condolences and commemorations, celebrations for special days and get-well messages.

Among the examined tweets, furthermore, there are numerous tweets posted aiming at responding a question using Twitter received via Twitter. In 14 tweets (% 5,78) posted by state universities and in 62 tweets (% 31,15) posted by foundation universities various questions received via Twitter were responded.

**Table 6: Main subjects and questions responded in tweets posted by most followed 10 state and foundation universities on Twitter**

		State Universities	%	Foundation Universities	%
<b>A</b>	<b>Information about the University</b>	<b>167</b>	<b>% 69</b>	<b>140</b>	<b>% 70,35</b>
A1	Who are we?	3	% 1,24	1	% 0,5
A2	What we produce as a result of works we conduct?	21	% 8,68	9	% 4,52
A3	What do we do? What services we give?	60	% 24,79	89	% 44,72
A4	How are the infrastructural facilities, campus life and support services?	76	% 31,4	39	% 19,60
A5	Who works at the university? What are their work principles?	7	% 2,89	2	% 1
<b>B</b>	<b>The ways of reaching and contacting the university</b>	<b>2</b>	<b>% 0,83</b>	<b>7</b>	<b>% 3,52</b>
B6	What are ways of reaching and contacting the university?	2	% 0,83	7	% 3,52
<b>C</b>	<b>Easier and faster access to information relating to the university and to services offered</b>	<b>9</b>	<b>% 3,72</b>	<b>3</b>	<b>% 1,5</b>

C7	What are the media organs to reach information pertaining to the university?	9	% 3,72	3	% 1,5
C8	What are practices that provide access to services and information from the University?	-		-	-
<b>D</b>	<b>Admissions to the University. Announcements and conditions to join events, services and resources</b>	<b>43</b>	<b>% 17,77</b>	<b>32</b>	<b>% 16,08</b>
D9	How are admissions conducted?	43	% 17,77	32	% 16,08
<b>E</b>	<b>Other subjects</b>	<b>19</b>	<b>7,85</b>	<b>10</b>	<b>5,02</b>
E10	Other institutions' activities relating to the university	11	% 4,55	1	% 0,5
E11	Scientific datas	8	% 3,3	1	% 0,5
E12	Messages (condolences and commemorations, celebrations for special days and get-well messages)	-	-	8	% 4,02
	Page is not found	<b>2</b>	<b>% 0,83</b>	<b>7</b>	<b>% 3,52</b>
	Total	242		199	

Secondly, it was determined which and to what extent tool in the content of Twitter messages were used to identify how the universities deliver their messages on Twitter. (Table 7) Furthermore, it was determined to what extent an informal jargon was used and, if any, tweets posted in other languages than Turkish in Twitter messages.

In the examined tweets, “providing link to another website” turned out to be the mostly used tool among others. There were links provided in 83.8% of tweets posted by the state universities and in 51.2% of tweets posted by the foundation universities. Since there were 2 links provided in some cases, total number of links amounts to 218 for state universities and 104 in foundation universities.

Most links provided by universities belong to their official websites. (Table 8) 48.62% of links provided by the state universities and 43.27 % of links provided by the foundation universities direct the user to university's official website on which the subject is clarified in detail. Official university websites were followed by social media. 39.9% of links provided by the state universities and 47.12 % of links provided by the foundation universities belong to social media. Twitter and Facebook were found as most linked social media. They are followed by YouTube. Third mostly linked website type is the website which publishes on universities. 5.96% of links provided by the state universities and 0.96% of links provided by the foundation universities belong to websites which publish on universities. There are links to mass media in tweets as well. 3.67 % of links provided by the state universities and 0.96% of links provided by the foundation universities belong to mass media.

The second mostly used tool in the examined tweets is citing a Twitter address of other users which typically starts with @ symbol in the body of tweet. It is therefore ensured by that means that the Twitter user, whose address is included in the body of the message, gets the message as well. 9.91% of tweets posted by the state universities and 40.7% of tweets posted by the foundation universities include Twitter addresses which starts with @ symbol.

The third mostly used tool in tweets is using an informal jargon on occasions in writing tweets other than using full formal one. An informal jargon was detected in 9.92 % of tweets posted by the state universities and 25.63% of tweets posted by the foundation universities.

The fourth mostly used tool in tweets is using an image related with the message. 8.26 % of tweets posted by the state universities and 19.59% of tweets posted by the foundation universities included an image.

The fifth mostly used tool in tweets is using a hashtag starting with the symbol #. 2.89 % of tweets posted by the state universities and 2.01% of tweets posted by the foundation universities included # symbol.

The sixth mostly used tool in tweets is adding a video related with the message. 3.71% of tweets posted by the state universities and 1% of tweets posted by the foundation universities included a video as well.

The seventh mostly used tool in tweets is providing university contact phone number. 0.82% of tweets posted by the state universities and 3.01% of tweets posted by the foundation universities included phone number.

The eight mostly used tool in tweets is writing the message in another language in order to reach out people who use a different language other than Turkish. 2.47% of tweets posted by the state universities and 0.5% of tweets posted by the foundation universities included a message written in a different language other than Turkish. All of these messages written in a foreign language were in English.

The ninth mostly used tool in tweets is providing summary information. 2.06% of tweets posted by the state universities and 0.5% of tweets posted by the foundation universities included summary information.

The tenth mostly used tool in tweets is providing e-mail address. While there was no occasion of a tweet including e-mail, in tweets posted by the state universities, 0.5% of tweets posted by the foundation universities included an e-mail address.

**Table 7: Tools used by state and foundation universities in their Twitter messages**

	State Universities	%	Foundation Universities	%
<b>Number of examined tweets</b>	242	% 100	199	% 100
<b>1- Number of tweets providing link to another website</b>	<b>203</b>	<b>% 83,8</b>	<b>102</b>	<b>% 51,2</b>
Total number of links	218		104	
<b>2- Number of tweets including @ symbol</b>	<b>24</b>	<b>% 9,91</b>	<b>81</b>	<b>% 40,7</b>
Number of @ symbol	26		84	
<b>3-Using an formal jargon</b>	<b>218</b>	<b>% 90,08</b>	<b>148</b>	<b>% 74,37</b>
Using an informal jargon	24	% 9,92	51	% 25, 63
<b>4-Image</b>	<b>20</b>	<b>% 8,26</b>	<b>39</b>	<b>% 19,59</b>
<b>5- Hashtag (#)</b>	<b>7</b>	<b>% 2,89</b>	<b>4</b>	<b>%2,01</b>
<b>6-Video</b>	<b>9</b>	<b>% 3,71</b>	<b>2</b>	<b>% 1</b>
<b>7-Providing university contact phone number</b>	<b>2</b>	<b>% 0,82</b>	<b>6</b>	<b>% 3,01</b>
<b>8- Writing the message in another language</b>	<b>6</b> <b>(English)</b>	<b>% 2,47</b>	<b>1</b> <b>(English)</b>	<b>% 0,5</b>
<b>9- Summary</b>	<b>5</b>	<b>% 2,06</b>	<b>1</b>	<b>% 0,5</b>
<b>10- Providing e-mail address</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>% 0,5</b>

**Table 8: Link addresses of tweets providing**

	State Universities	%	Foundation Universities	%
University's official websites	106	% 48,62	45	% 43,27
Social media (Twitter, Facebook, Youtube, Instagram, Wikipedia, etc.)	87	% 39,9	49	% 47,12
Websites which publish on universities	13	% 5,96	1	% 0,96
Websites belong to mass media	8	% 3,67	1	% 0,96
Websites belong to a media monitoring agency	-		4	% 3,846
Google	-		3	% 2,88
Official establishment	1	% 0,46	1	% 0,96
Others	1	% 0,46	-	-
Page is not found	2	% 0,92	-	-
Total number of links	218		104	

Thirdly, user reactions to tweets posted by the university were examined. (Table 9) Twitter users mainly react in 3 ways: by retweeting, by adding the tweet to their favorites and by responding. The most preferred way of tweeting by users is retweeting. 135 of total 242 tweets posted by the state universities (55.78%) and 117 of 199 total tweets posted by the foundation universities (58.79) were retweeted by at least one user. Totally, it was found that tweets posted by the state universities were retweeted 565 times and tweets posted by the foundation universities were retweeted 676 times. According to that, there is on average 2.33 retweet for each tweet posted by the state universities. This figure is a little bit higher in foundation universities by 3.39 retweet for each tweet.

Second most preferred way of tweeting by users is adding the tweet to favorites. 52 (21.48%) tweets posted by the state universities and 32 tweets posted by the foundation universities (16.08%) were added to the favorites by at least one user. Totally 104 tweets by the state universities and 48 tweets by the foundation universities (58.79) were found as added to the favorites. According to that, there is on average 0.42 cases of adding of a tweet to favorites for each tweet posted by the state universities. This figure is 0.24 in foundation universities.

Third most preferred way of tweeting by users is starting a conversation by responding to a tweet or joining to an existing conversation. Users may send comments, suggestions, questions and greeting messages. 24 tweets posted by the state universities (9.91%) and 41 tweets posted by the foundation universities (20.6%) were responded by at least one user. Totally 35 tweets for the state universities and 72 tweets for the foundation universities were responded by users. 25 users (71%) positively and 10 (29%) users negatively responded to tweets posted by the state universities whereas 54 users (75%) positively and 18 (25%) users negatively responded to tweets posted by the foundation universities.

University responses to the response tweets of the users were examined as well. (Table 10) It was seen that the state universities responded to 2 of 35 response tweets (5.41%) whereas foundation universities responded to 20 of 72 response tweets (27.77%). One of the response tweets responded by the state universities was positive and the other one was negative. 17 out of 20 response tweets by the foundation universities were positive and remaining 2 were negative. It was not possible to determine whether 1 remaining tweet was positive or not since the tweet was not available on the Twitter page.

**Table 9: Numbers of retweets, adding to favorites and responses by users to tweets posted by the state and the foundation universities**

	State Universities	%	Foundation Universities	%
<b>Total number of tweets examined</b>	242	100%	199	%100
<b>Number of retweets by at least one user</b>	135	55.78%	117	58.79%
<b>Total retweets to all tweets</b>	565		676	
<b>Number of adding to favorites by at least one user</b>	52	21.48%	32	16.08%
<b>Total number of adding to favorites</b>	104		48	
<b>Number of responses to tweets by at least one user</b>	24	9.91%	41	20.6%
<b>Total number of responses to tweets</b>	35		72	

**Table 10: Numbers of response tweets by users to tweets posted by the state and the foundation universities.**

	State Universities	%	Foundation Universities	%
<b>Total number of response tweets by users</b>	<b>35</b>	<b>100%</b>	<b>72</b>	<b>100%</b>
<b>Total number of positive response tweets by users</b>	25	71%	54	75%
<b>Total number of negative response tweets by users</b>	10	29%	18	25%
<b>Number of response tweets of universities to questions, suggestions and messages posted by users in a conversation.</b>	<b>2</b>	<b>100%</b>	<b>20</b>	<b>100%</b>
<b>Number of positive response tweets by universities</b>	1	50%	17	85%
<b>Number of negative response tweets by universities</b>	1	50%	2	10%
<b>Number of response tweets by universities whose content was not clear</b>	-	-	1	5%

#### 4. ARGUMENT AND CONCLUSION

There are 7 main subjects visible in the tweets posted by the most followed ten state and foundation universities on Twitter. These are: Information about the university, the ways of reaching and contacting the university, easier and faster access to information relating to the university and to services offered, admissions to the university/ announcements and conditions to join events, services and resources, other institutions' activities relating to the university, scientific data and messages of condolences, commemorations, greetings for special days and get-well messages. Followers of universities on Twitter thus are able to follow the developments in their university and are able to learn their university's way of thinking by these means even though they are physically far from their university.

When the state and the foundation universities are compared by the subjects of the tweets they posted, it was seen that the state universities mainly attempts to provide information on “infrastructural facilities, campus life and support services” while the foundation universities attempts to provide information on “works and services provided by the university”. Second subject which is sought to be answered in the Twitter messages is “works and services provided by the university” for the state universities and “infrastructural facilities, campus life and support services” for the foundation universities. Third and fourth subject included in the tweets of both state and foundation universities are the same. Both have “admissions to the university/ announcements and conditions to join events, services and resources” as their third subject and “What we produce as a result of works we conduct?” as the fourth subject.

Universities do not use Twitter only for promoting the university and providing information for their followers but also for responding to questions received from their followers. Because social media, by facilitating the communication, enable the users rapidly exchange information among them and get responses to their questions. Universities respond to questions received via Twitter by using Twitter so that other users were informed about the subject as well. Questions received via Twitter were responded by using Twitter in 5.78% of tweets posted by the state universities and 31.15% of tweets posted by the foundation universities. Based on these figures, it is seen that the foundation universities are using Twitter in order to respond to questions received via Twitter more than that of the state universities.

It was examined as well which tools were used by the universities on Twitter. Most used tools are as follows: providing link to another website in the body of tweet message, citing a Twitter address of another user in the body of tweet, using an informal jargon in writing the tweets, posting images, using a hashtag constructed by using # symbol, attaching videos, sending tweets in different languages, involving summary information and providing e-mail address.

Mostly used means among others by universities on Twitter is “providing link to another website”. There were links provided in 83.8% of tweets posted by state universities and in 51.2% of tweets posted by foundation universities. Most links provided by universities belong to their official websites. Official university websites was followed by social media. Twitter, Facebook and YouTube are most linked social media. Social media content mostly consisted of shared video and image. Websites which publish on universities ranks third while mass media ranks fourth in links. By utilizing links, universities are able to use effectively 140 characters of space provided by Twitter and enable other users get detailed information by simply clicking if needed. Links are not just a means of communication but also may act as a catalyzer to direct users to a desired address when used.

The second most used tools is citing a Twitter address of another user in the body of tweet and therefore, sending the message to this very user as well. By doing so, it is aimed at raising attention of other users which are considered to be related with the subject and with the message. 9.91% of the tweets posted by the state universities and 40.7% of the tweets posted by the foundation universities include a Twitter address of another user. Based on these figures, it is seen that the foundation universities use this means approximately more than state universities do.

The third most used tool in tweets is using an informal jargon when writing the tweets. Social media by itself is far from being formal and distinct from other means of communications by being a convenient communication platform. Thus using an informal jargon instead of a formal one seems more appropriate for Twitter. 9.91% of the tweets posted by the state universities and 25.62% of the tweets posted by the foundation universities use an informal jargon. Based on that, foundation universities use a more appropriate way of expression than state universities do.

The fourth most used tool in tweets is including an image relating to the message. 8.26% of the tweets posted by the state universities and 19.59% of the tweets posted by the foundation universities also include an image. Attaching an image to a message is becoming ever easier since digital cameras as well as cell phones and tablet computers with features of capturing images are becoming available widespread. However, most tweets posted by the universities do not include visual materials such as photographs or images. Figures tell us that foundation universities use this feature more than the state universities do. Images though may be much more effective than words in delivering a message.

Using a subject title constructed by using # symbol, posting videos, posting tweets in different languages, involving summary information and providing phone number and e-mail address are very occasionally used tools.

Using a hashtag starting with the symbol # encourages the users to think and write tweets on the same subject title. When hashtags are properly and effectively used, they have the potential to play a key role in supporting the sense of belonging and keeping the conscious of being a community member alive. Furthermore, it is possible that the subject may be draw attention of many others with the usage of hashtags by many users at the same time. For this reason, more frequently use of words marked with # by the universities will be helpful to make an effective use of social media.

Shooting, fictionalizing and broadcasting a video with its original sound effect or sometimes with an embedded music piece are more commonly available within minutes with the help of digital cameras, cell phones featuring video cameras and video editing software. YouTube facilitate the broadcasting as well. However, it is seen that the video sharing is not widely used by the universities. Universities which operate in a vivid campus environment and conduct many daily activities use this feature more often and may more effectively communicate the activities and the campus life to users.

Demassification feature of the new media brought about the opportunity to broadcast and publish the content by considering the individual characteristics of different users. This feature provides unique opportunities to reach to scientists who are working in the different parts of the world and speaking different languages, to private and public institutions related with the universities, to mass media, and to prospective students and their families. New Twitter accounts may be opened in order to post tweets in different languages as well as posting tweets in Turkish or in different languages from the existing account. It turned out that universities rarely post tweets in different languages. Limited number of tweets in English posted by the universities on the accomplishments and the vision of the university hints that universities actually grasped the importance of this feature. Using different languages in tweets may indeed help to communicate with different people living in the different places of the world and speaking different languages.

User reaction to tweets posted by the universities was also examined. It is concluded that the user's most common reaction is retweeting the tweets. 55.78% of the tweets posted by the state universities and 58.79% of the tweets posted by the foundation universities were shared by retweeting by at least one user. By retweeting, users are able to share the tweets posted by the universities with their followers and enable the tweets to be circulated more inside the social media network. It is advised that the universities aim to increase the number of retweets in order to reach to more users.

The most preferred second and third means are "adding the tweet to favorites" and "starting a conversation by responding to a tweet or joining to an existing conversation" respectively. Users are able deliver their positive/negative comments, suggestions, questions or greeting messages in their responses. It was also examined to what extent the universities respond to the user responses. State universities responded 2 of 35 tweets (5.41%) whereas the foundation universities responded 20 of 72 tweets (27.77%) posted by the users. Social media indeed is an effective environment to interact, yet, universities seem responding very occasionally to tweets received as a response to tweets posted by them. Based on the figures, foundation universities are much more eager to respond to response tweets than the state universities are. Most of the responded tweets are positive. This means that user's chance of getting a response to their tweets increases when they post a tweet of positive content. Likewise, the universities will also have the chance of correcting a negative idea by responding to a negative tweet even though it carries a risk of encouraging continuously negative tweets. These cases call for an optimum approach structured by the experience and the knowledge of the university. Responding will be especially helpful to inform the users and clarify the subject if tweet in question is thought to be based on a wrong information or miscommunication.

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