An Analysis of Prospective Teachers' Perceptions Concerning the Concept of "Social Media" through Metaphors

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ABSTRACT

This study was conducted so as to determine prospective teachers' perceptions of the concept of "social media" through metaphors. The study group was composed of 138 prospective biology teachers attending Hacettepe and Gazi universities in 2015–2016 academic year. The participants were given the semi-structured interview form containing the statement "Social media is like ..... because...." And they were asked to complete the statement. The technique of content analysis was used in assessing the data collected. MAXQDA 12, a program for qualitative data analysis, was used in analysing the data. Having analysed the data, they were interpreted. Accordingly, 30.43% of the prospective teachers perceived the concept of social media as a harmful element, the great majority of them (66.67%) perceived the concept positively as an educational, technological, entertaining, indispensable part of life and as an instrument of communication.

Keywords: social media, Facebook, Twitter, Instagram, metaphors, perception

INTRODUCTION

Changes and developments occurring in technology influence human life in several ways, and the Internet and social media attract the attention of many branches of science. Social networking sites such as Facebook, Instagram and Twitter, websites permitting social interaction, game sites and video sites such as YouTube are regarded as social media (O'Keeffe & Clarke-Pearson, 2011). Social media applications enable users to chat and to interact in writing, in audio or visually (Selwyn, 2012). What distinguishes social media from traditional media is that anybody can create content, make comments and contribute with texts, audio, videos and images in social media (Yagmurlu, 2011). Research has found that social media is most frequently used by the 18–29 age group, that the rate of using the media has been increasing year by year and that more than 80% of university students have been using it (Celik, 2017; Lau, 2017; Sahin, Kaynakci & Aytop, 2016; Vural & Bat, 2010).

Social media is an invaluable instrument for education and it is important for cooperative learning (Moran, Seaman & Tinti-Kane, 2011). With the changes and developments occurring in technology, traditional education can no longer meet students' needs (Khoshemehr, 2013). Computer technologies increase students' interest in learning (Yuksel-Arslan, Yildirim & Robin, 2016). Social media offers individuals new opportunities to express themselves, to form communities, to cooperate and to share (Murray, 2008). Social media enriches teaching experience, supports students' learning process and gives support to teachers' teaching and evaluation processes (Gulbahar, Kalelioglu & Madran, 2010). Using social media provides students with opportunity to interact and cooperate, and it enables them to communicate (Gikas & Grant, 2013). Teachers can use Facebook to support the applications of training and professional development (Sumuer, Esfer & Yildirim, 2014). In education, students as well as institutions use social media increasingly (Davis, Deil-Amen, Rios-Aguilar & Gonzalez Canche, 2012).

Lakoff and Johnson (2005) define a metaphor as comparing abstract or complex phenomena with more concrete or tangible phenomena thus developing understanding for unknown phenomena. Therefore, metaphors help students to understand especially difficult concepts and terms more clearly, they concretise and visualise abstract concepts in the mind and thus make it possible to keep the newly learnt knowledge mind for longer and to recall it more easily, and they increase motivation to learn (Ibret & Aydinozu, 2011). Metaphors are the vehicles whose

Contribution of this paper to the literature

- Since social media use among prospective teachers has been increasing year by year it is important to examine prospective teachers' perceptions related social media.
- Metaphors can be used as an important instrument of research in studies that examine perceptions concerning the social media.
- This study would contribute to developing curricula and to the literature in that there has been no previous study in this specific area.

validity to teach the unknown, to keep the learnt knowledge in mind and to remember it has been proven. Metaphors are very strong learning and teaching instruments (Acikgoz, 2002; Vadeboncoeur & Torres, 2003). These instruments develop students' thinking skills and their creativity and they are useful in making abstract concepts concrete. They assure students' active participation in classes and facilitate learning concepts and keeping them in mind for longer. They also develop students' scientific thinking and problem-solving skills (Lynch & Fisher-Ari, 2017).

Metaphors can offer important benefits to determine prospective teachers' perceptions of the concept of social media. It is believed that determining how prospective teachers perceive social media would contribute to developing curricula and to the literature. On reviewing the literature no studies examining perceptions on social media through metaphor analysis were found. On reviewing the literature by extending the scope, it was found that studies analysing teachers' and students' perceptions of the Internet Facebook through metaphors were available. Arabacioglu & Goktas (2015) determined prospective teachers' perceptions in relation to the concepts of Internet and Facebook by means of metaphors. Eren, Celik, and Akturk (2014) investigated students' perceptions of Facebook through metaphor analysis. Senyuva and Kaya (2013) made an attempt at determining students' perceptions of the Internet through metaphors and from the aspect of variables affecting those metaphors.

Purpose of the Study

This study aims to describe prospective teachers' perceptions of the concept of "social media" through metaphors.

Research Problem

1. In what metaphors do prospective teachers describe their perceptions of the concept of "social media"?
2. Into what categories can prospective teachers' metaphors in relation to the concept of "social media" be divided according to their similarities?

METHOD

Research Design

This study employs the design of phenomenology – a method of qualitative research. Phenomenology is a method suitable for use in studies aiming to research phenomena of which we do not have in-depth knowledge but which is not unfamiliar to us and which we may not comprehend fully (Creswell, 2014; Gallagher & Schmicking, 2010).

Study Group

The study group was composed of 138 prospective biology teachers studying at Hacettepe and Gazi Universities in the academic year 2015–2016. Of the participants, 97 were female and 41 were male.

Data Collection

The prospective teachers were given a semi-structured interview form (reflective writing) containing the statement "Social media is like …. because ……" and they were asked to complete the statement. No comments were made while they were completing the statement on the form.

Analysis and Interpretation of the Data

The data collected were put to content analysis. Data are analysed closely in content analysis and the elements that are found to be similar or related are grouped into certain concepts and themes and they are thus interpreted (Krippendorff 2004; Neuendorf 2016; Yildirim & Simsek 2008). The stages of (1) coding/eliminating, (2) classifying, (3) categorising, (4) validating and making reliable, and (5) transferring into the medium of computer – which had been followed by other researchers (Ates & Karatepe, 2013; Aydin & Unaldi, 2010; Creswell, 2014; Koseoglu 2017; Saban, 2008) – were followed in interpreting prospective teachers' metaphors through content analysis. MAXQDA 12, a program for qualitative data analysis, was used in coding the data.

FINDINGS

A total of one hundred and thirty-eight prospective teachers taking part in the study created 134 metaphors about "social media" by means of two semi-structured questions. The metaphors collected were divided into conceptual categories and they were tabulated. The data shown in the tables were then analysed and interpreted.

Figure 1 shows the conceptual categories containing the metaphors created by prospective teachers.

Table 1. Findings for the statement "Social media is like ….. because….."

1. Social media is like…………. because………………	Frequencies	Percentages
Indispensable part of life, an irreplaceable element	**48**	**34.78%**
Family	2	1.45%
Mother	1	0.72%
Friend	12	8.70%
Love	2	1.45%
Chocolate	3	2.17%
Pal	1	0.72%
World	2	1.45%
The sun	1	0.72%
Hamburger	1	0.72%
Life	6	4.35%
Part of life	1	0.72%
Coffee	2	1.45%
Blood	1	0.72%
Coke	3	2.17%
Fried potatoes	1	0.72%
Chewing gum	2	1.45%
Darling	1	0.72%
Water	4	2.90%
Dessert	1	0.72%
Meal	1	0.72%
Addiction	**28**	**20.29%**
Hot spicy tomato dip	1	0.72%
Alcohol	4	2.90%
Tea	1	0.72%
Sunflower seed	3	2.17%
Illness	1	0.72%
Handcuffs	1	0.72%
Cigarettes	13	9.42%
Drug	2	1.45%
Time-killer	2	1.45%

Table 1 (continued). Findings for the statement "Social media is like ….. because….."

| 1. Social media is like…………. because………………	Frequencies	Percentages
Harmful, dangerous	**14**	**10.14%**
Spare time	1	0.72%
Mud	1	0.72%
Thorny rose	1	0.72%
Enemy	1	0.72%
Prison	1	0.72%
Thief	2	1.45%
Loss of memory	1	0.72%
Sewage	1	0.72%
Murderer	1	0.72%
A bad habit	1	0.72%
Trap	1	0.72%
Virus	1	0.72%
Harmful foodstuff	1	0.72%
Educational-instructional, , source of knowledge	**13**	**9.42%**
Information store	1	0.72%
Computers	3	2.17%
Books	3	2.17%
Library	1	0.72%
Modern encyclopaedia	2	1.45%
School	2	1.45%
Teacher	1	0.72%
Instrument of entertainment	**13**	**9.42%**
Going shopping	1	0.72%
Matchmaker	1	0.72%
Rumour	1	0.72%
Entertainment	2	1.45%
Cafe	2	1.45%
Magazine programme	3	2.17%
Game	2	1.45%
Toy	1	0.72%
Vehicle of communication	**12**	**8.70%**
Newspaper	1	0.72%
Vehicle of communication	1	0.72%
Mass media	6	4.35%
Radio	1	0.72%
Telephone	1	0.72%
TV	1	0.72%
Vehicle of transport	1	0.72%
Technological and making life easier	**6**	**4.35%**
Refrigerator	1	0.72%
Household appliances	1	0.72%
Medicine	1	0.72%
Saver	1	0.72%
Liberty	1	0.72%
Meeting room	1	0.72%
No answers	**4**	**2.90%**
TOTAL	**138**	**100%**
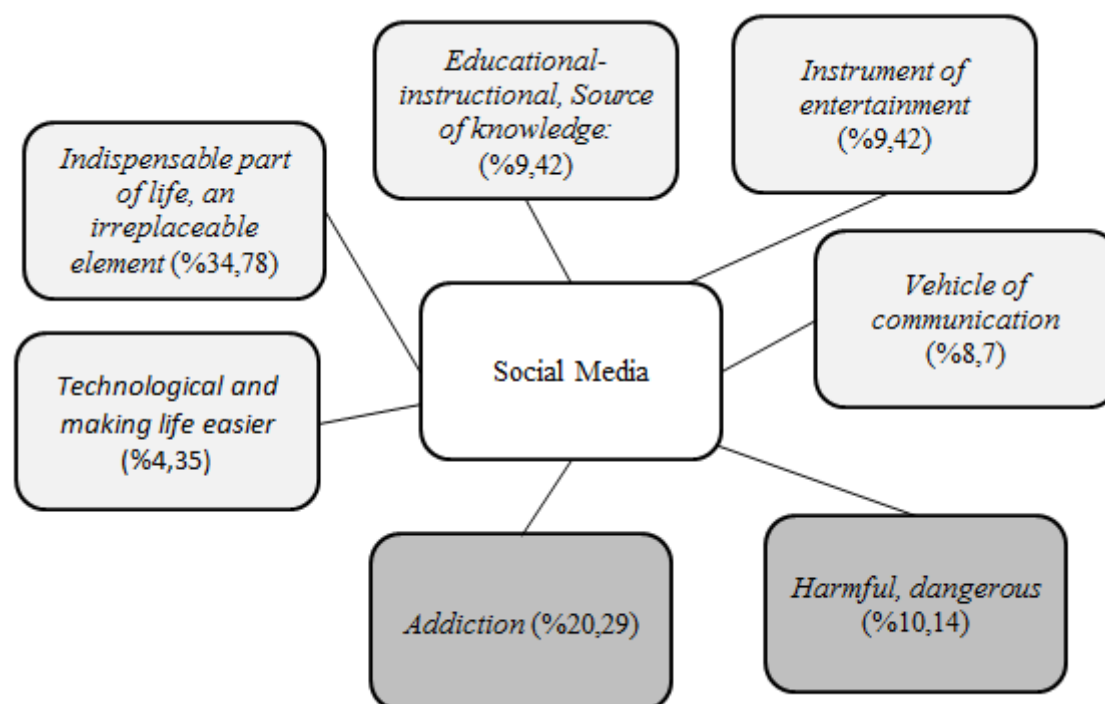
Figure 1. Conceptual categories formed by prospective teachers

Conceptual Categories

Positive categories

Indispensable part of life, an irreplaceable element: This category is composed of student statements perceiving the concept of social media as an indispensable part of our life and as an irreplaceable element. This is also the category having the largest number of metaphors. Prospective teachers describe social media in connection with entities they need in their life in this category. Some of the statements in this category are as in the following:

"Social media is like a friend because it makes us sociable."

"Social media is like life because it makes our life continue."

Educational-instructional, Source of knowledge: Metaphors in this category describe mostly the educational-instructional benefits of social media. Some of the statements in this category are as in the following:

"Social media is like a computer because it gives answers to all questions."

"Social media is like a school because there are students as well as teachers."

Instrument of entertainment: Metaphors in this category describe mostly the entertainment aspect of social media. Some of the statements in this category are as in the following:

"Social media is like a magazine programme because in it we see where people go and what they eat and drink."

"Social media is like a cafe because we have nice chats there."

Vehicle of communication: Metaphors in this category describe the use of social media as a vehicle of communication. Some of the statements in this category are as in the following:

"Social media is like a vehicle of communication because we can be informed of a piece of news in the social media."

"Social media is like a television because you can find all that you are looking for on TV."

Technological and making life easier: Prospective teachers described the ease social media offers in daily life and its technological aspect. Some of the statements in this category are as in the following:

"Social media is like a household appliance because it offers the solution we need without tiring us."

"Social media is like medicine because it cures us."

Negative categories

Addiction: This category is composed of student metaphors perceiving social media as something causing addiction. Thus, they see social media as an object that one cannot give up using once one starts using. Some of the statements in this category are as in the following:

"Social media is like a cigarette because you cannot quit once you start smoking."

"Social media is like alcohol because you want to drink more once you start drinking."

Harmful, dangerous: Metaphors in this category emphasise mostly the harm social media does to humans. Some of the statements in this category are as in the following:

"Social media is like a thief because it robs you of time and you cannot understand how time passes by."

"Social media is like a thorny rose because it makes us happy but we feel pain because of its thorns unless we pay attention."

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

This study aimed to reveal prospective teachers' perceptions of the concept of social media with the help of metaphors they created. Their metaphors were divided into different conceptual categories according to their shared properties. Metaphors created were divided into seven conceptual categories in total – five of which were positive, listed as "indispensable part of life, an irreplaceable element", "educational-instructional, a source of knowledge", "instrument of entertainment", "vehicle of communication" and "technological and making life easier"; two of which were negative, listed as "addiction" and "harmful, dangerous". Each category was important in that they each highlighted a different aspect of the concept of social media. As a result, 66.67% of prospective teachers perceived social media positively. Eren, Celik, and Akturk (2014) also found that 56% of the metaphors created for Facebook were positive. Using social media instruments in the process of education is necessary, beneficial and easy, and it is also effective in increasing students' achievements (Togay, Akdur, Yetisken & Bilici, 2013). In their study conducted with prospective biology teachers, Koseoglu and Mercan (2016) also found that using Facebook for educational purposes had positive effects such as increasing sharing and cooperation, reaching the lecturers easily and visualising the content for students. However, they found that there were also students who had negative views in this respect.

Students use social media in order to be informed, share information and to make friends (Lewis, 2009). In this research, %34.78 of the prospective teachers perceived social media as a part of life and as an irreplaceable element, and they used the metaphor of "friend" most in this respect. Arabacioglu and Goktas (2015) also found that 2% of the prospective teachers described Facebook with the metaphor of "friend". Social media provides opportunities for interpersonal interaction and dialogue (Lovejoy & Saxton, 2012). Social networks and groups are available in social media, and people set up friendship relations in social media (Solis, 2010). The majority of scientists believe that using social media as an educational tool would be useful (Tess, 2013). A total of 9.42% of the prospective teachers perceived social media as "educational-instructional, a source of knowledge". Taniguchi (2003) concluded that using the Internet for educational purposes was an important metaphor. Social media has the potential to recreate the learning environment between students and teachers (Celik, Yurt & Sahin, 2015; Chen & Bryer, 2012). Karaman (2010) points out that prospective teachers use the Internet most for the purposes of reaching knowledge. According to Senyuva and Kaya (2013), the metaphors most frequently created by students in relation to the Internet are in the conceptual category of "Internet as the source of knowledge."

Prospective teachers today do most of what they find entertaining through social media (García-Martín, Nicasio & Sanchez, 2013). Social media was also perceived as "an instrument of entertainment" by 9.42% of the participants. Students can use social media for entertainment and to have a nice time (Valenzuela, Park & Kee, 2009). Vural and Bat (2010) found that students used the Internet to exchange information, to spend time in social media and to have fun.

Whereas 8.42% of the prospective teachers included in this study described social media as "a vehicle of communication", the category having the fewest metaphors (4.35%) was the category of "technological, making life easier". Social media is used more and more by teachers and students as a vehicle of communication. Teachers can form chat rooms, start forums and form groups to give homework, to send their students tests and to extend classroom debates. Students, on the other hand, can form groups on social media sites and can discuss various topics (Baruah, 2012; Suraweera et al., 2010).

The negative aspects of social media were stressed by 30.43% of the prospective teachers and thus 20.29% described social media as an "addiction" while 10.14% described it as "harmful and dangerous". When economic problems, psychological disorders and physical deficiencies are added, social media –- which is popular with students – can cause students to escape from the real world and to become addicted to social media (Kirik, Arslan, Cetinkaya, & Gul, 2015). Researchers have suggested a new type of phenomenon called "Facebook depression",

which is defined as a depression developing while spending time on social media sites such as Facebook and then beginning to have symptoms of classical depression (O'Keeffe & Clarke-Pearson, 2011).

We believe that determining prospective teachers' metaphorical perceptions in relation to the concept of social media in terms of how to use it more effectively and in terms of its probable harms is important and that conducting similar studies with different age groups and with different sections of society would provide important data for use in the field of education.

Since, prospective teachers' metaphors about the concept of social that were obtained in this study are positive, teacher may use social media social media instruments in the process of education and their engagement with students via the social media will be useful.

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