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Academist Perceptions on the Use of Web 2.0 Tools Through Maslow's Needs Hierarchy: A Case Study

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Abstract

The theory known as the 'Maslow Hierarchy of Needs', which was put forward by Abraham Maslow as a result of scientific studies, describes the basic requirements that guide human behaviour. In this hierarchical order, needs in five groups are physiological needs, safety needs, belonging and love needs, esteem needs and self-actualisation needs. Nowadays, it is not difficult to observe that human life has undergone a radical metamorphosis with digital transformation. With the cultural transformation triggered by digital technologies in the postmodern world, Maslow's theory has been transformed. In light of all this, in this study, based on Maslow's transforming hierarchy of needs pyramid, it is aimed to reveal academician perceptions about the use of Web 2.0 tools. The study was conducted with a case study, one of the qualitative research methods. A case study is an empirical research method used, where more than one source of evidence or data is available. The study group of the research consists of 20 academicians working in different departments of a government state university. Academist perceptions' interview form for 'Use of Web 2.0 tools through the needs hierarchy of Maslow, which was developed by the researcher as a data collection tool', was used in the research. The relevant form consists of demographic and open-ended questions. As a result, it has been observed that the views obtained from academics generally meet Maslow's Digital Needs Pyramid.

Keywords: Maslow's Needs Hierarchy, Web 2.0 Tools, Academist Perceptions, Case Study

1. Introduction

Digital transformation, in line with the opportunities offered by rapidly developing information and communication technologies and changing social needs, is to provide more effective and more efficient services to organisations and is a holistic transformation in human, business processes and technology elements to ensure beneficiary satisfaction. With digital transformation and the tools of communication technologies, individuals have begun to meet their various needs without time and space limitations (Argin, 2019). As a result of these changes, the classical web structure that came with the internet has been switched to new technologies called Web 2.0. The usage area of Web 2.0 technologies is expanding day by day (Unal and Uzun, 2019). The main reason for this is that Web 2.0 technologies make the interaction between users and web applications, interaction between users, collaborative work and access to information 'very easy' in the internet environment (Jiang, 2014; Chawinga & Zinn, 2016). Vivas and Valencia (2020), in their research, investigated the effects of Web 2.0 tools (blog, wikis,

social networks and multimedia repositories) on academic performance in collaborative learning environments. As a result, it has been demonstrated that Web 2.0 tools are technologies that support collaborative learning in order to develop more professional skills of individuals in the education of the future and to meet the emerging needs in the academic field. As similar research, Torres, Luna, Arciniegas and Faggioni. (2020), in their research, evaluated the issue of collaborative and active learning with Web 2.0 tools applied in Higher Education. As a result, it has been concluded that a strong and effective blended learning model will be created when an appropriate online activity process to be created with Web 2.0 technologies in higher education institutions is combined with face-to-face education.

Known as the Maslow Hierarchy of Needs, the theory put forward by Abraham Maslow as a result of scientific studies describes the basic requirements that guide human behaviour. These requirements fall into five categories: physiological needs, safety needs, belonging and love needs, esteem needs and self-actualisation needs. With the cultural transformation triggered by digital technologies in the post-modern world, Maslow's theory was also rethought. The changes in need perceptions in the social culture transformed with digital technologies are seen in the Maslow 2.0 Digital Needs Hierarchy (Figure 1).

Figure 1: Digital needs pyramid of Maslow 2.0

Physiological needs are seen at the lowest level in Maslow's hierarchy of needs. As a result of the technological developments experienced after the years when the hierarchy of needs was prepared, the world started to globalise rapidly, and many changes were experienced in social life with an increase in the speed of urbanisation. Thus, with the development of technology, changes have occurred (Sahan, 2007). Accordingly, new additions were needed in Maslow's hierarchy model. It was also stated that with the development of technology, new additions should be brought to these steps in the direction of 'digitalisation' (Pereira, 2008).

According to Figure 1, Web 2.0 tools were included in the steps of the pyramid draw attention. In this context, the academicians included in the research were asked which Web 2.0 tool they preferred according to the needs in the steps of the pyramid. As a result, the validity of these tools classified according to the needs is also tested.

When the literature is examined within the scope of Maslow's updated digital needs pyramid topic, Yagbasan and Sener (2019) in their studies aimed to determine the motivation of individuals to play online virtual games on the axis of Maslow's hierarchy of needs. As a result of factor analysis, four factors were revealed in the direction of the steps in Maslow's hierarchy, but this was not included because physiological needs were not evident in these virtual environments. Shahrawat and Shahrawat (2017), in their studies, analysed the cultural transition towards

postmodernity or a knowledge society and its impact on the changing needs of cities. As a result, based on the Digital Needs Pyramid of Maslow 2.0, these new needs surface with the increasing ability for people to connect the society and the culture. In the measure that a greater quantity of subjects, understood technologically like natural systems excessively complex and probabilistic, related with other people or institutions using automated means of communication, in these new communicational interactions, new decisions and control decisions for purposes are produced. These processes, which are proper to the postmodern world, require new skills and the increasing satisfaction of new needs to create the bidimensional profile of a digital citizen.

1.1. The aim of the study

In this study, based on Maslow's transforming hierarchy of needs pyramid, it is aimed to reveal academician perceptions about the use of Web 2.0 tools.

1.2. The important of the study

In line with the possibilities offered by rapidly developing information and communication technologies, some changes have been experienced in the needs of individuals and/or societies. There is no doubt that digital transformation plays a big role in these changes. This digitalisation, which affects every field, required the renewal of the theory and institutions in the literature. Maslow put forward one of these theories as the 'Hierarchy of Needs Pyramid'. Since the 1940s, when Maslow prepared this pyramid, the technological changes that took place had an effect on the needs of people, and new additions were needed in the five-level hierarchy model. For example, the new needs of a person have arisen, such as access to the internet and even social media. In this digital transformation, a new structure called 'Maslow 2.0 Digital Needs Pyramid' was created. In addition, the steps of each pyramid of need are classified by the relevant Web 2.0 tools. Although a few articles on different dimensions of this subject were found when the literature was examined, no study has been developed on the validity of this classification and digital need steps. In this study, based on Maslow's transforming hierarchy of needs pyramid, it is aimed to reveal the academician perceptions about the use of Web 2.0 tools. In the study, especially, the perceptions of academicians were drawn attention. The reason for this case is the qualification of academics as an important stakeholder of education, and at this point, it will be the pioneers of change. In the study, it will also be possible to question the academicians' ability to use digital tools. In light of all this, it is foreseen that this study will be an example of the work to be done, especially on digital transformation.

2. Method

An evaluative case study methodology was selected for this study as it enabled the identification of factors which help or hinder the implementation of technology education and make judgements as to their importance at the site studied. Case studies are based on an in-depth investigation of a single individual, group or event to explore the causes of underlying principles (Creswell & Maietta, 2002).

2.1. Study group

The study group of the research consists of 20 academicians working in different departments and different degrees (research assistant and lecturers) of a government state university. Purposeful sampling was used as a sampling method in the study. Purposeful sampling is a technique widely used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources (Patton, 2015).

2.2. Data collection tool and collection process

In the study, the open-ended question form developed by the researcher was used to determine academist perceptions on the use of Web 2.0 tools through Maslow's needs hierarchy. A comprehensive literature review was carried out to prepare the relevant questionnaire in a more qualified manner. Then, the questions were re-examined with a language instructor, and the expression disorders were eliminated. Finally, interview questions

were sent to randomly selected five academicians via WhatsApp, and they were asked to say the places that they did not understand while reading the questions. After this feedback, the interview questions were finalised.

The interview questions were grouped under two headings as personal information and questions for the purpose of the research. Within the scope of personal information, the gender, age, faculty and departments, years of work experience, frequency of connecting to the internet and social media were asked to academicians. For the purpose of the research, ask academics which Web 2.0 tool they use according to the needs in the Maslow 2.0 digital needs pyramid, and in this context, questions about whether these tools are effective in meeting their relevant needs are also included. These opinions are classified by researcher as positive and negative opinions at the analysis stage.

2.3. Analysis of Data

The data obtained in the questionnaire created using the Google Forms in the study were analysed with a content analysis technique suitable for qualitative research. Codes were created for the questions answered, the questionnaires were re-evaluated for situations, where there was a difference of opinion and this situation continued until a consensus was reached. In addition, tables were created for each question title, and their codes were written next to them. In addition, direct quotations were made from the statements of academics under the tables.

3. Findings

Information on the demographic characteristics of the study group in the study is given in Table 1.

Table 1. Information on the demographic characteristics of the study group

Variables	Variable level	Frequency (*f*)	Percent (%)
Gender	Male	12	60.0
	Female	8	40.0
Age	25-29	5	25.0
	30-34	6	30.0
	35-39	5	25.0
	40 and over	4	20.0
Faculty	Engineering Faculty	6	30.0
	Education Faculty	5	25.0
	Faculty of Business	5	25.0
	Health Sciences	4	20.0
Department	Construction engineering	3	15.0
	Mechanical engineering	2	10.0
	Biomedical engineering	1	5.0
	Mathematics and Science Education	2	10.0
	Classroom teaching	2	10.0
	Pre-school teaching	1	5.0
	Economics	4	20.0
	Business Administration	1	5.0
	Faculty of Medical	2	10.0
	Faculty of Nursing	1	5.0
	Midwifery	1	5.0

Years of work experience	1-5 years	5	25.0
	6-9 years	5	25.0
	10-14 years	4	20.0
	15-19 years	4	20.0
	20 years and more	2	10.0
Degree	Master degree	11	55.0
	PHD degree	9	45.0
Internet usage frequency	1-2 hours	0	0.0
	3-4 hours	0	0.0
	5-9 hours	10	50.0
	10 hours and more	10	50.0
Social media usage frequency	1-2 hours	2	10.0
	3-4 hours	4	20.0
	5-9 hours	5	25.0
	10 hours and more	9	45.0

According to Table 1, when examining the gender of academician, worked with 12 men and 8 women, academician ages range between 25 and 40. The faculties that academics are affiliated with are Engineering, Education, Business and Health Sciences. The department that academics are Construction Engineering, Mechanical Engineering, Biomedical Engineering, Mathematics and Science Education, Classroom teaching, Pre-school Teaching, Economics, Business Administration, Faculty of Medical and Faculty of Nursing. When the work experiences of academicians are examined, it appears that the frequency varies between 1–5 and 6–9 years. Looking at the academic degrees, it was found that they are mostly in master's degrees. Finally, when academicians' use of the Internet and social media is examined, it is determined that the frequency is 10 hours or more.

In the study, the findings obtained as a result of the analysis of the questions in the second part of the open-ended question form administered online are presented to the academicians in order. The answers to these questions are included in the relevant tables (Tables 2–9).

- **Please write down the Web 2.0 tools you use to realise your self-actualization needs:**

Table 2. Web 2.0 tools for reallising the need for self-actualization

Web 2.0. tools	*f*	*%*
You Tube	20	19.8
Instagram	20	19.8
Facebook	18	16.9
WhatsApp	13	12.2
Twitter	5	4.70
LinkedIn	4	3.76
Blogger	3	2.82
SnapChat	3	2.82
Skype	3	2.82
Google Hangouts	2	1.98
Wikipedia	2	1.98
Pinterest	s2	1.98
Flickr	1	0.94
Total	**94**	**100**

When Table 2 is examined, it has been determined that academics mostly prefer **YouTube** and **Instagram** Web 2.0 tools to realise their self-actualisation needs. In this context, YouTube, which eliminates the habit of watching television, is a platform that appeals to all age groups. Instagram is a free application with a fast, practical, fun and easy interface, and it has a social network feature (Benady, 2015).

These data have been supported the upper step of the Digital Needs Maslow 2.0 pyramid. However, it has been revealed that the Pinterest environment, which finds an environment in this step, is not preferred by academicians to realise this need. When the other rankings of the table are examined, it is seen that tools such as Facebook, WhatsApp and Twitter are effective in realising the need for self-actualization.

- **Please give your opinion that Web 2.0 tools are effective in realising your self-actualization needs:**

Table 3. Web 2.0 tools for realising the need for self-actualization

Categories	Expressions	*f*	*%*
Positive opinions	Creativity skills	11	13.6
	Acquire top behavioural skills (digital literacy, digital citizenship, critical thinking, Problem-solving)	10	12.4
	Breaking down the prejudices	9	11.6
	Saving time in accessing information	9	11.6
	Access to information in areas of interest and expertise	8	9.4
	Sharing knowledge in areas of interest and expertise	7	8.6
	Communication skills	5	7.7
	Freedom of thought	3	5.8
	Gaining self-identity	1	1.5
Negative opinions	Spending too much time, business disruption at this point	15	14.8
	Less permanence of easily understood information	1	1.5
	Problems with time management	1	1.5
Total		**80**	**100**

When Table 3 is examined, it seems that academics have both positive and negative views about Web 2.0 tools they use in the context of self-actualisation. Most repeated expressive is **'creativity skills'** in the context of positive opinions; most repeated expressive in the context of negative opinion is **'spending too much time, business disruption at this point'.**

When direct quotations are examined,

> *'Web 2.0 tools provide the opportunity to handle many tasks in our daily life without wasting time. I can access a lot of information with these tools' (F11).*

> *'These tools allow me to express my thoughts freely because they are interactive and allow information sharing' (M5).*

> *'I learned more and got rid of my prejudices in many subjects with unlimited access to information' (F2).*

> *'I sometimes devote too much time to these tools, in this context my work can be disrupted' (M9).*

> *'The information I obtain is not permanent because I can access information from the virtual environment easily' (F7).*

- **Please write down the Web 2.0 tools you use to realise your esteem needs:**

Table 4. Web 2.0 tools for realising the need for esteem

Web 2.0. tools	*f*	*%*
Instagram	19	21.8
Linked in	16	18.3
Twitter	15	17.2
SnapChat	9	10.3
Facebook	7	8.04
Blogger	5	5.74
ResearchGate	5	5.74
Wikipedia	4	4.59
Pinterest	4	4.59
Flickr	3	3.70
Total	**87**	**100**

When Table 4 is examined, it is determined that the Web 2.0 tools used by academics to realise the need for esteem are mostly **Instagram and LinkedIn**. **Twitter** and **Snapchat** followed these tools. These data have been supported this step of the Digital Needs Maslow 2.0 pyramid, but one tool that draws attention in the data obtained in this study was LinkedIn. When the table is examined, it is determined that 16 academics use LinkedIn tool for this need. It is a platform that summarises the careers of LinkedIn members and enables members to share information by influencing each other (Ruff & Frankie, 2019). When this platform is examined today, it is seen that academicians from different parts of different countries benefit from this platform. ResearchGate is a similar Web 2.0 tool and has been preferred by academics for its need for esteem, according to the table.

Please give your opinion that Web 2.0 tools are effective in realising your esteem needs:

Table 5. Web 2.0 tools for realising the need for esteem

Categories	Expressions	ƒ	%
Positive opinions	Self-esteem	17	26.5
	Self-confidence	11	17.1
	Achievement	9	14.0
	Self respect	8	12.5
	Motivation	8	12.5
	Perseverance of achievement	4	6.25
	Respect for others	2	3.12
Negative opinions	Misuse and associated negative consequences	3	4.91
	Significantly weakening achievement	2	3.12
	Total	**64**	**100**

When Table 5 is examined, it seems that academics have both positive and negative views about Web 2.0 tools that they use in the context of esteem needs. The most repeated expression for positive opinion is **'self-esteem';** the most repeated expression for negative opinion is **'misuse and associated negative consequences'.**

When direct quotations are examined,

> *'Positive and constructive feedback to came my posts strengthen my motivation and determination to succeed' (M1).*

> *'I gain academic prestige with my academic studies I share in media such as LinkedIn ResearchGate, which I use for academic sharing' (F12).*

> *'Sharing and exchanging ideas with these tools both increase my self-respect and respect for others' (M4).*

- **Please write down the Web 2.0 tools you use to realise your belonging&love needs:**

Table 6. Web 2.0 tools for realising the need for belonging and love

Web 2.0. tools	ƒ	%
Facebook	16	19.2
Instagram	13	16.2
WhatsApp	12	15.4
Twitter	9	10.8
Skype	9	10.8
Blogger	5	5.84
Google Hangout	5	5.84
Google Talk	4	4.64
Facetime	3	3.10
Clips	3	3.10
Viber Messenger	1	1.36
Pinterest	1	1.36
Flickr	1	1.36
Total	**73**	**100**

When Table 6 is examined, it is seen that the most used tool by academics to meet their belonging and love needs is **Facebook**, followed by **Instagram** and **WhatsApp**. When Maslow's digital needs pyramid is examined, it is seen that the Web 2.0 tools in this step are Skype, Facebook and WhatsApp. When the table is examined, the tools used are verified. Especially, it has been determined that tools such as **Skype, Google Hangout, Google Talk, Facetime and Clips** are frequently preferred by academics for their belonging and love needs. It is predicted that making video and audio calls and receiving and sending chat messages with these tools are effective in meeting these needs.

- **Please give your opinion that Web 2.0 tools are effective in realising your belonging&love needs:**

Table 7. Web 2.0 tools for realising the need for belonging&love

Categories	Expressions	ƒ	%
	Friendship	13	23.2
	Affinity- social relations (with friends, families, colleague etc.)	11	19.6
	Gaining social identity	8	15.9
Positive opinions	A feeling of belonging to a group	5	8.92
	Gaining social status	5	8.92
	Acceptance by a group or people	4	7.14
	To love / be loved	2	3.57

Negative opinions	Fake relationships established in virtual environments	4	7.14
	Sharing negativities between people in these environments gives a feeling of insecurity to people near us	2	3.57
	Distrust from fake relationships	2	3.57
	Total	**56**	**100**

When Table 7 is examined, it seems that academics have both positive and negative views about Web 2.0 tools they use in the context of belonging and love needs. The most repeated expression for positive opinion is **'friendship'**; the most repeated expression for negative opinion is '**fake relationships established in virtual environments'.**

When direct quotations are examined,

'Via to these tools, I often feel that my family and social relationship ties are strengthened'(F8).

'Via to these tools, I feel myself belonging to an academic group with the communication I have established with my academic environment. In this context, I gain social identity' (M6).

'I feeling to loved with the communication I establish with these tools, this situation affects positively on my daily life' (F9).

'These tools sometimes make us feel the negative events experienced between our own family or people in our social environment closely. This situation increases my distrust of my relatives and people around me' (M17).

- **Please write down the Web 2.0 tools you use to realise your safety needs:**

Table 8. Web 2.0 tools for realising the need for safety

Web 2.0. Tools	*f*	*%*
Google Drive	17	21.7
Gmail	17	21.7
Google Maps	10	13.4
Hotmail	8	10.2
Outlook	8	10.2
One Drive	7	8.97
Dropbox	5	6.41
Apple iCloud	3	3.84
Google Earth	2	2.56
Yandex Navigation	1	1.28
Total	**78**	**100**

When Table 8 is examined, it is seen that the most common tools used by academics to meet their safety needs are **Gmail and Google Drive.** Google Drive is a file storage and synchronisation service created and managed by Google. This service enables users to store documents, share files and organise documents with their collaborators (Ouick & Choo, 2014). Gmail is a free e-mail service offered by Google. It has been determined that e-mail environments such as **Hotmail and Outlook** and those OneDrive, Dropbox and Apple iCloud are preferred by

academicians to meet the safety needs. It is predicted that academicians prefer these tools for information and data security.

When Table 8 is examined, it has been determined that other Web 2.0 tools used to meet the safety need are Map and Navigation Applications (Google Maps, Google Earth and Yandex Navigation). Besides in the light of all these data, the results obtained support the Web 2.0 tools used in the safety needs a step of Maslow's Digital Needs Pyramid.

- **Please give your opinion that Web 2.0 tools are effective in realising your safety needs:**

Table 9. Web 2.0 tools for realizing the need for safety

Categories	Expressions	f	%
Positive opinions	Data safety-backup	20	50.0
	Information safety	8	20.0
	Easy and fast communication	3	7.50
Negative opinions	Cybersecurity concerns	7	17.5
	Network security concerns	2	5.00
	Total	**40**	**100**

When Table 9 is examined, it seems that academics have both positive and negative views about Web 2.0 tools they use in the context of belonging and love needs. The most repeated expression for positive opinion is **'Data safety—Backup'**; the most repeated expression for negative opinion is **'Cybersecurity concerns'**.

When direct quotations are examined,

'Via to tools such as Google Drive, Dropbox, I make backups and ensure data security'; so that I feel safe (F1).

'I do not experience data loss using tools with data storage features. I can easily access my data, especially in environments where I do not have a computer; so I save time' (M7).

'I question the security of the e-mails I send or receive via e-mail tools such as Gmail and Hotmail; I am concerned about cybersecurity' (M4).

Please write down the Web 2.0 tools you use to realise your physiological needs:

Table 10. Web 2.0 tools for realising the need for physiological

Mobile and Web 2.0. Tools	F	%
Smartphones	20	18.6
Personal computers	15	14.0
Gmail	13	12.1
Hotmail	11	10.2
Google Chrome	10	9.34
Tablets	8	7.47
Hotmail	7	6.54
Online shopping sites	7	6.54
Skype	5	4.67
WhatssApp	4	4.02
Facetime	3	2.80
WiFi-connection	2	1.86
Wired connection	2	1.86
Total	**107**	**100**

When Table 10 is examined, it has been determined that the tools used by academics to meet their psychological needs are mostly mobile devices**: 'Smart Phones'** and **'Personal Computers'**. According to the table, it is seen that other tools can vary such as **e-mail services, web browser tools, online shopping sites** and so on.

When Maslow's digital needs pyramid is examined, it is seen that there are tools such as WiFi, tablet, personal computers and batteries in the psychological needs level. The results obtained from academics support these tools used.

Table 11. Web 2.0 tools for realising the need for physiological

Categories	Expressions	f	%
Positive opinions	Make phone call	20	25.3
	Send or take e-mail/electronic documents	12	15.1
	Web browser & search	11	13.9
	Buy online shopping	7	8.86
	E-commerce	5	6.32
	Video or voice conversation-communication	4	5.06
Negative opinions	Phone and internet addiction	10	12.6
	Asociality- inability to socialise	9	11.6
	Message addiction	1	1.26
	Total	**79**	**100**

When Table 11is examined, it seems that academics have both positive and negative views about Web 2.0 tools they use in the context of psychological needs. The most repeated expression for positive opinion is **'make phone call'**; the most repeated expression for negative opinion is **'phone and Internet addiction'**.

When direct quotations are examined,

> *'I can meet my basic physiological need to communicate using my smart phone; when my device is not with me I feel insecure and panic (M11)'.*

> *'Especially since I could not leave the house during the period that started with the pandemic process, I did my shopping through online sites; this situation relaxed me psychologically (F5)'.*

> *'The time I spend with my smartphone exceeds 8 hours a day; which makes me both phone and internet-addicted (M3)'.*

> *'I care the applications on my phone during the day and break my social ties with my environment, which makes me nerdy (M13)'.*

> *'I think that the needs in this area cannot be met sufficiently and healthily through web tools, socialising is one of our most basic needs in the physical sense, and psychological needs met with web tools cannot be realistic enough (F7)'.*

4. Result, discussion and suggestion

The theory, known as the Maslow Hierarchy of Needs, put forward by Abraham Maslow as a result of scientific studies, describes the basic needs that guide human behaviour. These needs are grouped into five groups: physiological, safety, love and belonging, esteem and self-actualisation. With the cultural transformation triggered by digital technologies in the postmodern world, Maslow's theory was also rethought. Although the names of the needs perceptions transformed by digital technologies have not changed, their situations of satisfaction have been renewed. This renewal has enabled Web 2.0 tools to take place in the steps of the pyramid (Bridgman, Cumming & Ballard, 2020).

In this study based on Maslow's transforming hierarchy of needs pyramid, it is aimed to reveal the academician perceptions about the use of Web 2.0 tools. In this digital transformation, a new structure called 'Maslow 2.0 Digital Needs Pyramid' was created. In addition, the steps of each pyramid of need are classified by the relevant Web 2.0 tools. Although a few articles on different dimensions of this subject were found when the literature was examined, no study has been developed on the validity of this classification and digital need steps. In this study based on Maslow's transforming hierarchy of needs pyramid, it is aimed to reveal academician perceptions about the use of Web 2.0 tools. In the study, especially, the perceptions of academicians were drawn attention. The reason for this case is the qualification of academics as an important stakeholder of education and at this point, it will be the pioneers of change. In the study, it will also be possible to question the academicians' ability to use digital tools. In light of all this, it is foreseen that this study will be an example of the work to be done, especially on digital transformation.

Research is an example of a case study from the qualitative research methods. The case studies are based on an in-depth investigation of a single individual, group or event to explore the causes of underlying principles (Creswell & Maietta, 2002). In the study, the open-ended question form developed by the researcher was used to determine the academist perceptions on the use of Web 2.0 tools through Maslow's needs hierarchy. Three field experts, one psychological counsellor and one assessment and evaluation specialist were consulted to test whether the relevant interview form served the purpose. The interview form was applied to 20 academicians working in different departments of a state university. The opinions obtained from academics and a comparative literature review are presented as follows:

First of all, when the academician use of the internet and social networks is examined, it is noteworthy that the frequency is 10 hours or more. When the literature on this subject is examined, Yayli, Ozturk and Alabay (2013) did research that determines Turkish Academician's level of internet use; as a result, academicians use the internet every day for academic research. Guler and Mutlu (2013) investigated the level of social networks' usage of academic staff in their studies, and as a result, it has been revealed that the frequency of academicians spending time on social networks is high. So that the findings of the research were supported by the literature review.

It has been determined that academics mostly prefer 'YouTube' and 'Instagram' Web 2.0 tools to realise their self-actualisation needs. These data have been supported the upper step of the digital needs Maslow 2.0 pyramid. However, it has been revealed that the Pinterest environment, which finds an environment in this step, is not preferred by academicians to realise this need. When the other rankings of the table are examined, it is seen that tools such as Facebook, WhatsApp and Twitter are effective in realising the need for self-actualisation. When the field literature is examined, Alexa (2011) reported that YouTube, an internet social media and video viewing site, ranks third in the world for the volume of video traffic and enjoys a larger audience of 18–24 years olds than other internet sites. The use of the social network Instagram, as an innovative tool for debate and collaborative mobile learning, aims to reinforce the development of certain skills and abilities among the students of different subjects of different universities, through the promotion of creativity and the management of ICTs (Miguel et al., 2020). It seems that academics have both positive and negative views about Web 2.0 tools they use in the context of self-actualisation. Most repeated expressive is 'creativity skills' in the context of positive opinions; most repeated expressive in the context of negative opinion is 'spending too much time, business disruption at this point'. An answer quoted from academics; 'I have a channel on food making on YouTube, which improves my creativity and technology skills (F4)'. However, as a disadvantage, the loss of time has been shown as a lot of time is spent in these tools. According to the research by Jeffred et al. (2003), half of the people's time is spent on media consumption. With the technological opportunities that it offers today, the media also has its eyes on the leisure time of adults (Hodge et al., 2012).

It is determined that the Web 2.0 tools used by academics to realise the need for esteem are mostly Instagram and LinkedIn. Twitter and Snapchat followed these tools. These data have been supported this step of the digital needs Maslow 2.0 pyramid, but one tool that draws attention in the data obtained in this study was LinkedIn. LinkedIn allows employees, entrepreneurs and companies to establish business connections, based on the philosophy. 'One's professional relationships are the key to person success' (Kudug, 2011). Erdem, Kocadere and Soylu (2017), in their studies, analysed the reasons for using social networks according to Maslow's Hierarchy of Needs. As a result, it has been revealed that users prefer Twitter to meet their esteem needs. Based on Maslow's need to be respected in the hierarchy of needs, it is possible to say that the individual gains a place for himself through social media, feels belonging to a group or community and is esteemed in the socialisation process he performs in this way (Unur, 2016). The other result is that academics have both positive and negative views about Web 2.0 tools they use in the context of esteem needs . The most repeated expression for positive opinion is 'self-esteem'; the most repeated expression for negative opinion is 'misuse and associated negative consequences'. An answer quoted from academics is 'I gain academic prestige with my academic studies I share in media such as LinkedIn ResearchGate, which I use for academic sharing' (F12). 'Especially the criticism and even insults to the message of with social content posts I post on Twitter negatively affect my psychology' (M13).

It is seen that the most used tool by academics to meet their belonging and love needs is Facebook, followed by Facebook, Instagram and WhatsApp. When Maslow's digital needs pyramid is examined, it is seen that the Web 2.0 tools in this step are Skype, Facebook and WhatsApp. Especially, it has been determined that tools such as Skype, Google Hangout, Google Talk, Facetime and Clips are frequently preferred by academics for their belonging and love needs. It seems that academics have both positive and negative views about Web 2.0 tools they use in the context of belonging and love needs. The most repeated expression for positive opinion is 'friendship'; the most repeated expression for negative opinion is 'fake relationships established in virtual environments'. The individual, who creates a profile in social media such as Facebook and Twitter, constructs his own identity in this way and is the first step towards meeting the need to belong to a group beats. After this stage, the individual goes to reinforce the sense of belonging by joining social sites (Alaton, 2012). An answer quoted from academics: 'Via

to these tools, I feel myself belonging to an academic group with the communication I have established with my academic environment. In this context, I gain social identity' (M6).

It is seen that the most common tools used by academics to meet their safety needs are Gmail and Google Drive. It has been determined that e-mail environments such as Hotmail and Outlook and those One Drive, Dropbox and Apple iCloud are preferred by academicians to meet the safety needs. It is predicted that academicians prefer these tools for information and data security. Other Web 2.0 tools used to meet the safety need are Map and Navigation Applications (Google Maps, Google Earth and Yandex Navigation). Besides in light of all these data, the results obtained support the Web 2.0 tools used in the safety needs step of Maslow's Digital Needs Pyramid. It seems that academics have both positive and negative views about Web 2.0 tools they use in the context of belonging and love needs. The most repeated expression for positive opinion is 'Data safety-Backup'; the most repeated expression for negative opinion is 'Cybersecurity concerns'.

It has been determined that the tools used by academics to meet their psychological needs are mostly mobile devices: 'Smart Phones' and 'Personal Computers'. According to the table, it is seen other tools vary such as e-mail services, web browser tools, online shopping sites and so on. When Maslow's digital needs pyramid is examined, it is seen that there are tools such as WiFi, tablet, personal computers and batteries in the psychological needs level. The results obtained from academics support these tools used. It seems that academics have both positive and negative views about Web 2.0 tools they use in the context of psychological needs. The most repeated expression for positive opinion is 'make phone call'; the most repeated expression for negative opinion is 'phone and Internet addiction'. When the field literature is examined with social media, where interaction and sharing are the central feature, the physical, sociological, psychological and economic boundaries have changed, and a brand new structure has emerged, in which localism and globalism exist simultaneously (Laughey, 2010).

Based on the results of the research, the following recommendations are presented:

• This research was conducted with a case study of qualitative research methods, and further studies can be realised with different research methods of quantitative research.

• The sample of the research is faculty members (academicians) from different branches in higher education, further studies can be realised with different sample groups and different stages.

• The interview form was used as a data collection tool in the research. Further studies can be realised with a valid and reliable scale or questionnaire. Hence, detailed and comparative results can be produced.

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