

# The Driving Motives of Undergraduate Students for Using e-Communication – The Ways for Achieving Effective e-Communication

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## Abstract

Electronic communication (e-communication) as a result of rapid development of information and communication technologies (ICT), gaining momentum over the last decade, has become an important communication tool that has profoundly affected our lives with its great opportunities and possibilities. E-communication inevitably influenced educational institutions, and the institutions which implement e-communication effectively, have begun to provide significant advantages in terms of time, space, labor, and cost. This situation creates an impact on the educational institutions, especially on higher education institutions, so as to achieve more effective use of e-communication. In this study, based on the views of academic staff and undergraduate students, the reasons that make underground students use e-communication, advantages and disadvantages of e-communication, and the issues related to what should be done for the use of e-communication more effectively, have been examined.

In the research, an interview technique was utilized as a means of data collection. Opinions of both 25 academic staff and 25 undergraduate students in the Faculty of Technology at Fırat University, were taken by means of semi-structured questions. The obtained data were coded and the themes were determined. Then based on the frequencies of the repetition of the themes, the data were analyzed.

The findings revealed that undergraduate students used e-communications, especially for sharing knowledge related educational issues, and that beside advantageous sides, there were disadvantageous features of e-communication as well.

## Keywords

*Electronic Communications; Advantages; Disadvantages; Effectiveness; Undergraduate Students; Academics*

## Introduction

ICT, especially the internet has become indispensable in daily life and in professional area. The word 'electronic' which means the use of information and communication technologies, now is ubiquitous and expressed with "e-" attachment where it is needed. No matter what e-attachment is put ahead, has added a different function to it (Gökdaş and Kayrı, 2005; Şenel and Gençoğlu, 2003).

The concept of communication is defined as a process of interaction of two or more people affecting each other through understanding, hearing-announcing, thinking, exchanging information (Can,1992, p. 240) in order to obtain the desired outcomes, through five basic elements of communication process such as source, receiver, message, channel, and feedback (Aydın, 2010, p. 151; Eren, 2009, p. 426-431; Kaya, 1991, p. 110; Yıldırım, 2011, p. 108; Yılmaz, 2010, p. 161). Communication can be performed verbal, nonverbal, written or electronic. Electronic communication is carried out through technological tools such as mobile devices and the internet. Due to the advantages gained in terms of place, time, cost and effort, today e-communication has become the most preferred type of communication.

When it comes to e-communication, the first mentioned thing is social networks comprising the individuals who are connected by one or more social relationships (Marshall, 1999). These networks are virtual communities and according to their functions and requirements, people can reach and share necessary the knowledge all over the world. Members of these networks form profiles and moving along with these profiles, they share their ideas and experiences, and generate new knowledge for the resolution of the problems (Acun, 2009; Lenhart ve Madden, 2007; Özmen, Aküzüm, Sünkür and Baysal, 2011). The fact that the social networks are characterized with its targeted users who are generally young people and students interacting with each other more easily and effectively compared to other types of communication, leads to the idea that virtual environments can be used for educational purposes as well. Because social communication networks have a great effect on students of all ages, it creates urgency for the educators to explore the benefits of this field (Özmen, Aküzüm, Sünkür and Baysal, 2011; Selwyn, 2009).

Although the widespread use of internet facilitates our lives, it triggers many problems as well (Weinstein and Lejoyeux, 2010). The young people spends most of their free time communicating through electronic media. They access to or stay in entertainment sites which may have some negative effects. These kinds of leisure time activities may undermine the success of students (Günüç and Kayri, 2010; Fırçasıgüzel, 2011; Yapıcı, 2003; Kirschner and Karpinski, 2010; Paton, 2012).

Another issue is that many students or graduates do not know how to access the knowledge resources or how to make use of knowledge effectively. And, unfortunately, a significant portion of faculty members also are not familiar with the contemporary teaching and assessment techniques which will enhance student creativity and learning (Ortaş, 2003; Şahin, Cerrah, Saka, and Şahin, 2004; Çağıltay, 2007).

The general aim of this study is, based on the opinions of academics and undergraduate students, to determine the reasons that make the student use e-communication; to explore the ways preferred for the use of e-communication; and to determine the advantages of using e-communication. Along with the general aim, the replies for the questions below are sought:

1. For what purposes do the undergraduate students use e-communication mostly?
2. What are the most preferred e-communication methods for the undergraduate students?
3. Which e-communication tools are used frequently by the undergraduate students?
4. What are the advantages and disadvantages of e-communication?
5. What can be done to achieve more effective e-communication?

### Method

An interview technique was used as a means of data collection in that qualitative research. The views of 25 academics and 25 undergraduate students in the Faculty of Technology, at Firat University, were obtained by means of semi-structured questions.

Responses to the questions were coded and along with them the themes were identified. To ensure the reliability, the help of an expert was required, and the responses were coded by her as well. It was detected that the codes and the themes marked by the expert were largely compatible with the ones of the researchers'. Then the themes were analyzed along with the frequencies of repetitions. In the course of analysis of the subjects' opinions, the students were coded as S1, S2 ... S25; and the academics were coded as A1, A2 ... A25. Since the opinions of the subjects included more than one theme, the total number of themes (f), and the total number of participants are not equal (n = 50). In order to increase the reliability of the study, some of the remarkable views of the subjects were given in the original forms.

### Findings and Interpretation

Based on the analysis of the responses, the findings of the study towards the purposes for using e-communication were grouped under six headings. These were, *getting information* (related to education and research matters), *messaging* (news and exchanging information), *instant chatting* (related to ordinary works and daily life), *sharing* (files or documents in the computers), *entertainment* (playing game, listening to music, etc.), *friendship and collaboration* (supporting and strengthening relationships), *official correspondence* (writing, telling etc. to governmental agencies)

TABLE 1 DISTRIBUTION OF THE VIEWS RELATED TO STUDENT PURPOSES FOR USING E-COMMUNICATION

Student purposes for using e-communication	Students (f)	Academics (f)	Total (f)
Getting and sharing knowledge (education and research, file sharing, etc.)	24	25	49
Messaging (getting news, ...)	12	17	29
Instant chatting	11	11	22
Entertainment	11	7	18
Friendship and collaboration	7	11	18
Official correspondence	3	3	6

The total scores of the views of both undergraduate students and academics about the purposes of the students for using e-communication indicate that students use e-communication mostly to obtain and share knowledge related to education and research matters (f=49). Messaging is the second ranked purpose (f=29), followed by instant chatting (f=22), entertainment (f=18) and friendship and collaboration (f=18) respectively. The last and so the least preference belongs to official correspondence (f=6).

Looking at the views of academics and students separately, it is seen that the rates of the views generally approximate. However, related to getting and sharing knowledge and messaging purposes, the number of academics is more than the students. Some of the expressions developed by individual participants about the reasons of using e-communication by the students are as follows:

*"I am engineering student and because of my department I usually use forum sites to get information about difficult issues. Meanwhile, I never neglect to look at my e-mails and respond to incoming messages. In addition, if my friends are online I would definitely chat. But I try not to be excessive."* (S1)

*"I think students use mostly for messaging and chatting. During laboratory studies, I see them trying to talk on facebook or another program with each other. Beside these, there are also some students trying to do their studies or given homeworks. But especially listening to music and downloading files from the Internet are among a few things they do the most frequently."* (A3)

*"Mobile-based platforms, today provide access to audience of millions without limitation of time and space, and offers the possibility of highly efficient and unlimited dissemination and access to information. To obtain information in virtual environments and to communicate, they are widely used in all social fields."* (S16)

*"...Students mostly use e-communication to talk, to download music and to obtain notes for lectures. Following the news playing games, and at least exchanging information are some others"* (S18)

*"... Social networking and communication purposes ... Sometimes a means to spend time ..."* (A20)

TABLE 2 DISTRIBUTION OF THE VIEWS RELATED TO THE MOST PREFERRED METHODS USED BY THE STUDENTS FOR E-COMMUNICATION (RATED FROM THE MOST TO THE LEAST PREFERRED ONE)

The most preferred methods of e-communication	Student (f)			Academics (f)			Total (f)		
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
The frequency range									
Sending e-mail	18	6	3	17	4	1	35	10	4
Sharing files	4	17	5	5	14	4	9	31	9
Video and voice messages	4	2	13	3	2	12	7	4	25
Sending SMS	2	2	3	4	4	1	6	6	4

According to the views of academics and undergraduate students, e-communication methods used by university students, according to the total frequency, ranking from the greatest to the least, are indicated in table 2. It is seen that e-mail sending (f=29), sharing files (f=26), video and voice messages (f=23), and sending SMS (f=6) are ranked respectively. When the views of the subjects are examined separately, it is seen that the priority method for the students is sending e-mails, so do academic.. Sharing files is indicated in the second most preferred one for the students, but, the academics' view rated more than the students'. In the third rank, video and voice messaging is placed. And, again the rate for the academics is more than the students'. Even if mobile phones are mostly used as a communication tool by students, it is remarkable that sending SMS is the least preferred method.

About the mostly preferred e-communication methods by the students, some expressions of the subjects are as follows:

*"Respectively to tell you: e-mail, msn, video conversation"* (A2)

*"To send message, to share files, video and voice message and also to send sms"* (A17)

*"I can rank as messaging, file sharing, sending SMS"* (S20)

TABLE 3 DISTRIBUTION OF THE VIEWS RELATED TO E-COMMUNICATION TOOLS USED BY THE STUDENTS

Social networks and programs commonly used	Students (f)	Academics (f)	Total (f)
Facebook	23	20	43
Twitter	16	9	25
Msn Messenger	15	8	23
Gmail	7	6	13
Game sites	2	3	5
Programs on mobile phones	2	2	4
Blogs	-	3	3
Skype	1	2	3

As it seen from the table (Table 3), according to the views of both students and academics, the most used e-communication tools by the students are Facebook (f =43) and Twitter (f =25) followed by MSN Messenger program (f =23). Gmail, game sites, programs on mobile phones, blogs and Skype are the ones of which the rates are gradually lessened. The views of academics indicate fewer rates in the use of Facebook, Twitter, and Msn Messenger.

Some of the statements that the participants expressed individually about e-communication tools are given below:

*"I think that cell phones and the programs on them are frequently used communication tools. In addition, facebook and twitter are favorite social networks for students, especially Facebook."* (A3)

*"Facebook, Messenger and Twitter ..."* (A18)

*"Students mostly use facebook, messenger, twitter, gmail and game sites and communicate with these tools."* (S2)

*"They usually use no more than facebook, twitter"*(S20)

TABLE 4 DISTRIBUTION OF THE VIEWS RELATED TO THE ADVANTAGES OF E-COMMUNICATION FOR STUDENTS

The benefits of e-communication	Students (f)	Academics (f)	Total (f)
Easy, convenient and fast	20	19	39
Learning in time	10	14	24
Sharing knowledge and files	12	10	22
Economic	12	10	22
Communication with a wider community	9	9	18
Participation in social contacts and activities	9	9	18
Communication through voice and video	8	7	15
Emotion reflection	1	3	4

Related to the advantages of e-communication (Table 4), academics and undergraduate students state mostly that e-communication provides the easiest, most convenient and the fastest way of communication (f=39). It is understood that e-communication provides opportunities respectively for learning in time (f=24); sharing information and files (f=22); communication with a wider community (f=18); participating in social contacts and activities (f=18); being economic (f=22); communication through voice and video (f=415); and reflection of emotions (f=4).

As for the views of academics and students separately, the most important advantage for both academics and students with nearly a similar rate, is easy, convenient and fast communication. While timely learning is articulated more by the academics, sharing knowledge and files and being economic are stated more by the students.

Some of the statements which the participants expressed for the benefits of e- communication are as follows:

*"The first thing I think is to access the knowledge easily through the first source and acquisition of knowledge from the most knowledgeable ones"* (S15)

*"I can get every kind of knowledge around world via e-communication. I can learn in time and I can communicate more people"* (S23)

*"Students can know each other, can participate in social activities, and can share files"* (S9)

*"It is fast, practical, easy and cheap. The students easily get course material for examinations."* (A17)

*"The most important benefit is to reach so many people at the same time."* (A21)

TABLE 5 DISTRIBUTION OF THE VIEWS RELATED TO DISADVANTAGES OF E-COMMUNICATION FOR STUDENTS

Disadvantages of e-communication	Students (f)	Academics (f)	Total (f)
Waste of time	21	15	36
Increase of insecurity and virtuality	11	16	26
Reduction of sociality and depersonalization	12	14	26
Increase of tendency to laziness and touchdown	8	9	17
Wrong and unnecessary information sharing	5	6	11
Health problems	5	6	11
Not to be online at any time	3	3	6

Based on the distribution of the views of academics and undergraduate students (Table 5), total frequency values indicate that waste of time (f=36) is the most mentioned disadvantage of e-communication. Other disadvantages respectively are cited as increase of insecurity and virtuality (f=26); reduction of sociality and depersonalization (f=26); increased tendency of laziness (f=17); wrong and unnecessary information sharing (f=11); health problems (f=11); and not to be online at any time (f=6).

However, reviewing the views of academics and students separately, it is seen that academics indicate insecurity and virtually at the first rank, followed by waste of time, reduction of sociality and impersonality which are the second and third rank disadvantages respectively for the academics. Other issues such as increase in laziness, wrong and unnecessary knowledge sharing, health problems, not to be online at any time are respectively given place in relatively lower rates.

On the other hand, students indicate waste of time as the first; and reduction of sociality and depersonalization as the second; increase in insecurity and virtuality as the third ranked disadvantages. Other disadvantages were indicated relatively in decreasing rates.

Some of the statements that participants expressed related to disadvantages of e-communication are given below:

*"Insecurity and virtuality, wrong information sharing, are common disadvantages. Reduction of sociality and depersonalization are other encountered disadvantages. Therefore, waste of time is inevitable" (S5)*

*"E-communication prompts laziness. Instead of doing research, you prefer to get the available documents on the internet"(S6)."*

*"...The level of sociality may decrease..." (S9)*

*"Due to abundant of knowledge, wrong knowledge may be held. It causes laziness and access waste of time"(S20).*

*"The major disadvantage of e-communication is the difficulty in reaching out to people who are offline. In addition, social life becomes monotonous and ends up." (A11)*

*"It weakens the connection with the real world. People may establish all their lives on these virtual networks. Advantage becomes disadvantage when used maliciously. '(A10)*

*"Students can abuse e-communication during the preparation of the training workshops and assignments (A16).*

*"The role of social life is steadily decreasing. Communicating through electronic media, students prefer short and scrutinized description about their experiences. So they cannot fully express themselves" (A18)*

TABLE 6 DISTRIBUTION OF OPINIONS RELATED TO THE CONVERSION OF DISADVANTAGEOUS SIDES OF E-COMMUNICATION TO ADVANTAGEOUS ONES

Ways to improve the effectiveness	Student (f)	Academics (f)	Total (f)
Using social networking sites for educational purposes	15	15	30
Provide training for awareness	12	16	28
Encouragement the use for exchanging necessary knowledge	14	13	27
Opportunities should be created to promote real social communication	6	9	15
Depends on the students	9	6	15
Disadvantages cannot be inverted to advantages	4	-	4
Little or no disadvantages	3	2	5

As seen from the table above (Table 6), in order to achieve effective e-communication, considering total frequency values, that 'using social networking sites for educational purposes' (f=30), is the most articulated statement. 'Training students for providing awareness' (f=28), and 'Encouragement the use e-communication for exchanging necessary knowledge' (f=27), 'Opportunities should be created to promote real social communication' (f=15), and 'It depends on the students' (f=15), are respectively most reported views. Regarding the views of academics and students separately, it is seen that the views do not differ much. While three of the students and two of the academics report that there is little or no disadvantage, four students comment that disadvantages cannot be converted to advantages. Some of the individual statements are given below:

*"Social responsibility projects can be improved. Students are directed to communication channels other than e-communication. Mutual and face-to-face communication must be preferred. They should allow for the time to explain to each other their thoughts and feelings by their own sentences" (A7)*

*"The awareness of the students should be promoted. The social networks just like Facebook may be utilized to share*

*homework or lecture notes and the like. The course assignments and projects should be discussed by the students freely. Students can share their thoughts or problems with their friends on the internet and ask for the guidance of the academics.” (A9)*

*“...as paper and pen used for information, real environments should be used for friendship. E-communication is not only used for entertainment purposes but also should be used for teaching purposes.” (A15)*

*“ Improving technology has already transformed the disadvantage into advantages. Further price reductions of hard wares such as multi-functional iPhone and communication services will eliminate the disadvantages of e-communication. It seems difficult to avoid the loss of social life. Nevertheless, education has the unique remedy.” (A11)*

*“The Internet and social networks are like cigarette. I think the disadvantage is not converted to advantage...people should be trained in the early ages, and this could be with the help of the families.” (S8)*

*“Firstly the students should be encouraged to use the Internet more efficiently. Academic staff must be the pioneer of this situation. They must be in contact with student by using mails or social networks. If academic staff initiates the interactive studies, students can continue. Students can also communicate with others on the internet at the same time to handle the other jobs. For example they can chat and also do research studies. (S18)*

*“The disadvantages completely depend on the students’ initiative. If they want to use the useful side, e-communication returns an effective tool for their education. When or where they want they can reach the information. It is the cheapest way. We also have the opportunity to access the entire source. But we are only the user of available information. The accuracy of this information which we can reach easily is discussed.” (S19)*

*“If students use the internet without spending too much time at certain periods of time, disadvantage of e-communication can be converted into advantage. If sharing information is done by using MSN or social networks, students have access to the course notes and be aware of each other as well.” (S22)*

## Discussion

The findings in that study show that undergraduate students use e-communication mostly for educational purposes. Messaging is the second most articulated one. Chatting, ordinary works and entertainment, friendship and collaboration and official procedures respectively follow them. As a result, it is determined

that students used e-communication especially to share information and educational matters and to take advantage of instructional issues. It is seen that the results obtained in this study are compatible with the ones in the literature. In Uşun (2003)’s study, it was found that the most important benefit of the use of computers for educational purposes was to facilitate access to information. Nachmias, Mioduser and Shemla (2001) determined that high school students use internet in six areas such as, access to information, communication, web site building, distance learning, data downloading and school work. Dursun (2004) stated that students use internet in order to send and receive e-mail, the read news, watch the media, in relation to education, mostly to do research and homework. Olkun and Çakıroğlu (2000)’s research concluded that students used internet as a tool for communication rather than for education related works.

Yilmaz (2012) reported that students use internet mostly for entertainment and communication. Vac and Gombor (2008) concluded in their studies that Internet may become a good tool to spend leisure time. Kert and Kert (2010) found that the majority of students used social networks to communicate with friends, to create a new social environment, to share videos and photos, and to chat. All of these findings reveal that students prefer e-communication to get information, to chat with friends, entertainment, and kill leisure time. Similar results were obtained in that research as well.

Research findings, reveal that the most preferred e-communication methods for the underground students are e-mail sending; file sharing, and video and voice based messaging. Surprisingly, sending SMS is the least preferred one. Meanwhile, the most used social networking sites are Facebook and Twitter. And they use MSN Messenger and Gmail, in addition to this, mobile phones used by students as a means of communication. This findings get along with that of many researches such as Cheung, Chiu and Lee (2010), and Kert and Kert (2010).

Although sending SMS with mobile phones or call is the easiest and the most preferred form of communication, when e-communication is a matter of subject, communication on the Internet has been the priority preference stated by the academics and students. The reason for that sending SMS is the least preferred e-communication tool, is interpreted as it is not found so functional in sharing information.

Other findings of this study are that undergraduate students prefer e-communication because of the advantages it provide such as easy, convenient and fast communication, timely learning and high-speed communication, information and file sharing, communication with a wider community, participation in social contacts and activities, being economic and achievable audio-visual communication. Koç and Karabatak (2011) found in their study that students using social networks in a useful way, communicated more easily with friends and teachers and social networks formed a communication bridge between the students and teachers.

Beside its advantages, some disadvantages are stated such as waste of time, insecurity, and increased virtuality; asociality and depersonalization, laziness and free-riding, wrong and unnecessary information sharing, health problems and not being online all the time. In a similar vein, Koç and Karabatak (2011) concluded that more time students spent on social networks than that needed and this situation caused a decline in the success of students. In addition, Kert and Kert (2010) stated that some of the students they talked thought spending time on social networks as a waste of time.

Some of the suggestions made by the undergraduate students and academics to achieve more effective e-communication in that research are summarized that social networking sites should be used for educational purposes; training should provide to promote awareness, the use of e-communication to exchange knowledge should be encouraged, and opportunities for real social environment should be promoted to reduce the time spent on virtual networks. However, it is also stated that ever evolving e-communication facilities will eventually eliminate these negative consequences.

Based on these findings, it may be said that e-communication tools may be used for knowledge gathering and sharing and at the same time for effective communication among the students as well as between students and academics. And they can provide efficient access to different learning environments for educational purposes. Therefore, the ways of utilizing e-communication should be sought through the courses.

Training on effective use of virtual environment can promote consciousness about utilizing the benefits and avoiding the disadvantages. Virtual environment training should be provided in student education and

the problems with the teachers should be eliminated through face-to-face instruction (Dursun, 2004). Keleş and Demirel (2011) stated that virtual environment training has important consequences. Facebook supported courses, can increase collaboration, accessibilities, and visulaty. Kert and Kert (2010) believed that social networking sites should be used for educational purposes. Odabaşı et al. (2012) determined that the study of literature in the form of Twitter used in many ways has been put forward in the process of teaching and learning. Jenkins (2009) and Acun (2009) advised people to take part in social networks. This participative culture should be used especially for the education of the students. Kalafat and Göktaş (2011), Lockyer and Patterson (2008), Ajjan and Hartshorne (2008), Mazman (2009), Baran (2010) and Mason (2006) demonstrated in their study that social networks support formal studies. Özmen, Aküzüm, Sünkür and Baysal (2011) in their study about the functionality of social networking sites in the establishment of educational environments, has reached important conclusions that social networks can provide coordination in order to achieve the educational objectives of the school management, teachers and students, information sharing and target objectives can be carried out.

## Conclusion and Recommendations

In this study, based on the opinions of academics and students, the purposes of undergraduate students for the use of the e-communication, the ways and tools, the functionalities, and the suggestions for effective use of e-communication have been examined.

In the study, the results indicate that the students' views related to the use of e-communication have got along with the views of academics.

It is understood that undergraduate students use e-communication mostly to achieve educational objectives. E-communication for messaging, chatting, ordinary things and entertainment, friendship and collaboration, and official correspondence are the purposes respectively in decreasing rates. Sending e-mails, document sharing between computers, video and voice messages respectively are the most widely used methods. This situation indicates that university students use e-communications effectively. This may be the reason why SMS is less frequently used for communication.

The views indicate that students mostly using social networking sites such as facebook, twitter prefer Msn

Messenger and Gmail but do not interested in game sites, programs on mobile phone, blogs and Skype so much. These results may be the indicators of being conscious users on the side of students. However, the situation that blogs are not preferred by the students, may be due to the lack of a comprehensive knowledge about e-communication process.

E-communication is seen advantageous for providing more convenient, more economic, faster, and easier communication than the traditional communication types; and providing opportunities for timely learning, knowledge sharing and communication with wider community. On the other hand, waste of time, insecurity, virtuality, reduction of sociality, wrong and unnecessary information sharing are regarded as some of the disadvantageous features. The suggestions of the subjects to reduce these disadvantageous features of e-communication are cited as using social networking sites for educational aims, training for ensuring awareness, creation opportunities for face to face communication, and the like.

The following recommendations can be given within the framework of the above-mentioned results;

1. For the educational purposes of using e-communication effectively and comprehensively, people should be provided with more training courses even in the early ages; and computer literacy courses should be included in the school curriculum.

2. An important disadvantage of e-communication was reported as increasing insecurity and virtuality. Unfortunately, it is hard to ensure completely secure e-communication. However, the administrators of the education organizations may provide technical and economic support for the establishment of adequate infra-structures to ensure security; and direct students to use legitimate sites.

3. In order to overcome asociality and isolation which was stated as other disadvantages, the use of social networks more effectively may be encouraged. Besides, the real life meetings may be organized more than ever before by school administrations through various activities.

4. Undergraduate student should be encouraged to build blogs so that they can enlarge their social environment and share knowledge.

5. E-communication should be encouraged not only to share knowledge but at the same time to generate new knowledge among the undergraduate

students. Academics can give assignments and projects to hold the critical and necessary knowledge and to develop new knowledge. In this context, virtual study groups can be formed.

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