Group-Based Communication: Contents and Practices of WhatsApp Group Use by Generations and Genders

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ABSTRACT
Our time is called digital era with the effects of developing and varying communication technology rapidly. While adoption of smart phones has been occurred worldwide in the last decade, instant messaging applications (IM apps) have also been diffused synchronously and they have become a prominent tool for communication among people. Internet-based instant messaging applications provide users to share any content (texts, videos, photos, links, video and voice calls) at any time both for dyad and group messaging with the opportunities of being free of charge and user-friendly. Hence, people have embraced the new way of communication and SMS has been substituted by instant messaging in time. So, the scope of this study focuses on practices and contents of group-based communication within the sample of WhatsApp, which have a vast adoption in many countries. In this direction, a questionnaire survey was conducted among 633 individuals having a range of backgrounds in Turkey. First of all, 83.3% of participants describe WhatsApp as the most frequently used communication tool. Furthermore, 48.5% of the participants agree with the statement that 'WhatsApp is indispensable'. In the context of contents, 73.6% of participants declare that the most frequently shared contents is about professional subjects both educational or business areas followed by personal issues and events (55.1%), chain-messages (caricatures, videos, photos, celebration messages) (52.2%) and gossips (44.5%). Considering the generations, while generation Z use WhatsApp groups for sharing personal issues, chain messages, cultural issues and gossip, generation X almost never use the application for this purposes. In terms of gender, it is understood that females tend to share personal issues and gossip more than males and males share political issues more than females. Finding of study confirms that WhatsApp groups are heavily used among Turkish users both for professional and personal life and it is accepted an essential communication way one cannot resist. Meantime purposes of usage differ by generations and genders.

Keywords: group-based communication, instant messaging, WhatsApp groups, generations, genders

INTRODUCTION

The researches on communication both mass and individual levels have been conducted for decades. Besides, each period has its own focuses depending on the technological

developments in the context of its diffusion and effects in societies. Online social platforms have been launched and distinguished from traditional communication tools at the end of the 1990s and early 2000s and online social tools related to publishing publicly individual profiles, which enable people contact with friends have become prevalent (Boyd and Ellison, 2008, p. 214). After rapid technological developments in the last two decades and large spread of smart phones worldwide, instant messaging applications (apps) have become dominant in communication realm by the levels of both inter-individual and in-group. Dhir et al. (2018, p. 3) describes the factors of massive adoption of instant messaging apps as 'increased penetration of smartphones, possibility of cheap and easy access to the Internet, users' need and wish to stay connected in real time, support for multiple ways of connecting, richness of the provided experience, and the nature of Mobile Instant Messaging (MIM) apps to adapt and adjust with the ever-evolving needs of their users, among other factors'. Likewise, the factors can be summarized with the conceptions of affordability (free of charge), convenience (easy to use) and unlimited messages (the ability to send photos or videos) features (Sultan, 2014, p. 58). Group-based communication is the further level of instant messaging process, as today's individuals have preferred to communicate and adapt this new form of communication with an unusual content and context sharing. The group-based communication importance has been underlined by its role in social and natural interaction (Olivera, 2013).

It could be said that the researches on instant messaging use have been increased growingly among communication academics in recent years meanwhile group-based communication studies are still rare, whereas its penetration on individuals/people/societies have spread. Therefore, this study determines to reveal the contents and practices of extensive use of group-based communication in the context of genders and X, Millennials, Z generations' behaviours in Turkey. The research has been conducted in the sample of WhatsApp application, which is mainly used for instant messaging, and group-based communication in Turkey as the statistics shows that 50 percentage of the population use WhatsApp in Turkey in 2017 (The Statistic Portal Statista, 2017).

THEORETICAL BACKGROUND: CONTENTS AND GENERATIONS VARIATION IN INSTANT MESSAGING APPLICATIONS

The very first instant messaging application (IM app) was appeared 15 years ago and today more than 300 mobile IM apps available on App store (Jacinto & Arndt, 2018, p. 406). Since then, by adding new features in time, IM apps enables theirs users both dyad or group messaging among its users allowing them to share any content including photos, videos, texts, and to make video or voice calls. In this context, O'Hara et al. (2014, p. 1131) explains the high adoption of smartphones with combinations of communication modalities provided by smartphones as it seen the most powerful platforms. Now, the groups can be composed of up to 256 members and it is not easily possible to gather that number of people in face-to-face interaction. As growing number of people have communicated via WhatsApp both for personal and business lives, users' expectation on security and privacy for their communication has become prominent. Hence, in 2014 WhatsApp presented a new technology called End-to-End Encryption (E2EE). '*This allows for data between communicating parties to be secure, free from eavesdropping, and hard to crack*' (Endeley, 2018, p. 96). It could be said that provided security assurance is coherent with the structure of closed group discussion, which separates IM applications from Social Network Sites (SNS). Swart et al. (2018, p. 4336) underlines the difference

between IM apps and SNS as about the content depending on its degree of openness. A research on SNS and IM apps remarks that 51.1% of Germans, 51% of British, and 42.7% of Italians share political contents on IM apps but not publish the contents on SNS even though they are users of those platforms (Valeriani & Vaccari, 2017, p. 9). Therefore, the content is an utterly determinative point to reveal the codes of IM apps diffusion in the world. Forwhy, people's expectations from the smartphones differs as it could be information seeking, entertainment, or communication (Jacinto & Arndt, 2018, p. 406) but fundamentally smart phones with by means of IM apps are based on interaction and socializing. Relatedly, Yus (2017, p. 66) underlines that continuous messaging penetrates users' feelings of connectivity and sociability. The possibility of an equal participation in a conversation should be added the features of IM apps, which makes it widespread use. One of the previous researches indicates that the intention of use WhatsApp principally depends on hedonic motivation as people find it fun, enjoyable and entertaining. But also, it is mentioned the existence of two consumer segments and the other group of people underline that they use WhatsApp for leisure, academic, work and informative reasons together (Fernandez-Robins et al., 2019, p. 1). As a result, the content has a crucial role amid all other factors to shed light on the reasons of IM transmission occurred all over the world. According to O'Hara et al. (2014, p. 1133), messaging technology is a means of meaning and content production since the apps support makes discourse. People can tell stories at any time and place supported by images or videos with the help of smartphones and IM apps.

At this point, two concepts explain the behavioral change of individuals' communication in social situations: 'permanently online' related to using online content and 'permanently connected' related to engaging in online social interaction synchronously all others duties (Vorderer et al., 2016, p. 695). Besides, one of the important key factors is derived from previous studies that IM apps provide its users relatively more intimate, closed, and controlled communication and interaction either one to one or group dialogs (Valeriani & Vaccari, 2017, p. 2). Yet, in this context the relation of SMS and IM apps could be questioning as those two have similar controlled communication feature unlike SNS. The reasons of IM apps having leading role in texting realm are its' affordability, convenience and unlimited multi-media messaging opportunity which is not available on SMS technology (Sultan, 2014, p. 58). Additioally, SMS is accepted more formal while WhatsApp (as a tool of IM) provides social and natural interaction within the closer social network (Church and Oliveria's, 2013, p. 360-361). Within the relation of natural interaction, it is revealed that 99.95% of all IM messages are less then 140 characters and the participants mostly reply messages in 24 seconds (Gu et al., 2012, p. 1025).

Taking into account all given information, IM apps penetration on communities is increasing consistently while a considerable space having to fulfill to explore the generations' behavioral change (mentioned above) on new age communication. After content, differences among the generations' WhatsApp usage habit is placed in the second. Today generations are mostly defined sociologically instead of biologically due to new technologies, renewing environments of career / study and changing societal values. A generation means a cohort of people born similar time had similar life stage and experienced similar events, trends and developments (McCrindle, 2010, p. 1-2). While the generations could be defined (Dimock, 2019, Pew Research Center) as below, this research comprises 3 generation X, Millennials and Z. While generation X has the history and experience of the first technological tools, Millennials have witnessed the period which

technology began to enter on lives daily basis. Generation Z is the youngest social group born in the nature of digital technologies (Nieradka, 2016, p. 814-815). Hence, to understand IM apps penetration on societies, it is deeply necessary to analyse the IM usage differences through the generations.

WhatsApp group messaging research conducted in Germany among university students, the average age is 21.4, which means Z generations, questions the purposes of WhatsApp use. The answers are, 98.09% of the participants for private purposes, 92.34% for organizational purposes, 77.51% for fun, 50.24% for important issues, and 33.01% for professional purposes (Seufert et al., 2016, p. 538). Another research conducted on Blackberry Messenger and WhatsApp consumers among university students in Kuwait, the mean age of participants 24.18, shows reasons of IM apps use respectively as; communicate with family and friends, hear the news and information, entertainment, escape from boredom, express themselves, meet new people, talk only (Sultan, 2014, p. 60-62). The results of WhatsApp research conducted under 20 years old university students in Jordan reveals that students use WhatApp for daily basis such as personal and social purposes while educational purposes is limited (Gasaymeh, 2017). To name a few examples of IM apps researches conducted among university students, 'Offline time is quality time. Comparing within-group self-disclosure in mobile messaging application and face-to-face interactions' (Knop et al., 2016), 'Permanently online – Permanently connected: Explorations into university students' use of social media and mobile smart devices' (Vorderer et al., 2016), and 'The importance of the WhatsApp family group: The exploratory analysis' (Aharony & Gazit, 2016).

It is clear that most of IM apps and the group-based communication researches have been conducted among Z generation or university students, while the other generations behaviours and purposes are mostly unrevealed. Therefore, we aim to shed light on genders and three generations behaviours of IM apps and group-based communications usage in this research with in the context of content.

METHODOLOGY

This study is an exploratory research that reveals the practices and contents in group-based communication in the sample of WhatsApp as it is one of the most widely used applications today. Survey research method was applied by conducting a questionnaire to three generations, X, Millennilas and Z. The research would provide a broader framework of understanding on instant messaging apps in the context of generations.

Sample

Convenience and snowball sampling techniques were used in the study. Main reason of using convenience sampling is that they are easy to reach, convenient or readily available (Neuman, 2014, p. 248). The only way used to reach participants was WhatsApp either with inter-individuals or in-groups communications. The ways itself gives a clue about WhatsApp effect and broad use of it. The sample of the research consists of people from a wide array of ages, educational backgrounds and occupations in Turkey to reveal general attitude towards WhatsApp groups' use. Participation to the research was entirely voluntary so although the number of people reached was higher than a thousand, initial sample was composed of 732 and it was reduced to 712 as 20 users had declared that they did not have WhatsApp groups and 79 participants had repeated the same answers to all questionnaire. So after removing invalid answers, the final sample was consisted of 633 participants.

Table 1. Demographic Characteristics of Sample

	f	%
Gender		
Female	360	56.9
Male	273	43.1
Education level		
Primary school	41	6.5
Lycee	153	24.2
University	439	69.4
Age Generations		
Generation Z (13-21)	169	26.7
Millennials (22-37)	385	60.8
Generation X (38-53)	79	12.5
TOTAL	**633**	**100.0**

The data was gathered from a sample (N=633) of 56.9% female and 43.1% male. The mean sample age was 28.7 (± 8.5) with a minimum 13 and maximum 53. In terms of education levels, it is seen that there is a high rate of bachelor degree (69.4%). The ages of the participants were categorized according to the generations. In this categorization the last generation definitions that Pew Research Center has used is based (Dimock, 2019). Generations aid to define and analyse societies through grouping people by the similarity of their place in the life cycle and time of birth. Hence, an understanding on societies' reactions and/or adaptation towards to political, social, economic and technological changes can be raised by distinction of generations.

There are three generations in the study. These are the Z generation (between the ages of 13-21), Millennials (between the ages of 22-37) and generation X (between the ages of 38-53). The usage practices of WhatsApp groups will be analysed in terms of generations.

Measurement

The questionnaire form was consisted of 3 main parts. First part was composed of the questions towards behaviours of WhatsApp and WhatsApp group use, second part was composed of WhatsApp group message contents and the last part was composed of socio-demographic questions.

FINDINGS

Behaviors of WhatsApp and WhatsApp Group Use

The four features of WhatsApp application became prominent by the answers of the multiple-choice question about why the participants use WhatsApp. These are, respectively, being easy-to-use (77.3%), the ability to send photos or videos (75.2%), being free of charge (64.5%), and being appropriate for group-based communication (61.5%). The results overlap within the scope of literature review (mentioned in previous part of the study) as Sultan (2014, p.58) explains the reasons of worldwide adoption of MIM apps with theirs' affordability (free of charge), convenience (easy-to-use) and unlimited messages (the ability to send photos or videos) features. Also Church and Olivera (2013) underline the importance of group-based communication for social and natural interactions. Turkish WhatsApp users emphasize the importance of group-based communication as the fourth main factor. The most commonly used feature of WhatsApp is sending text messages (58.8%) followed by sending photos/videos (18.0%) and group-based messaging (16.3%). As an interesting finding, 24.2% of participants said that they do respond incoming messages immediately. The percentage of those who do not use the instant messaging apps other than WhatsApp is 34.4%. 29.5% of the participants use SMS, 15.6% use FB (Facebook Messenger) and 5.8% use Instagram as direct messaging
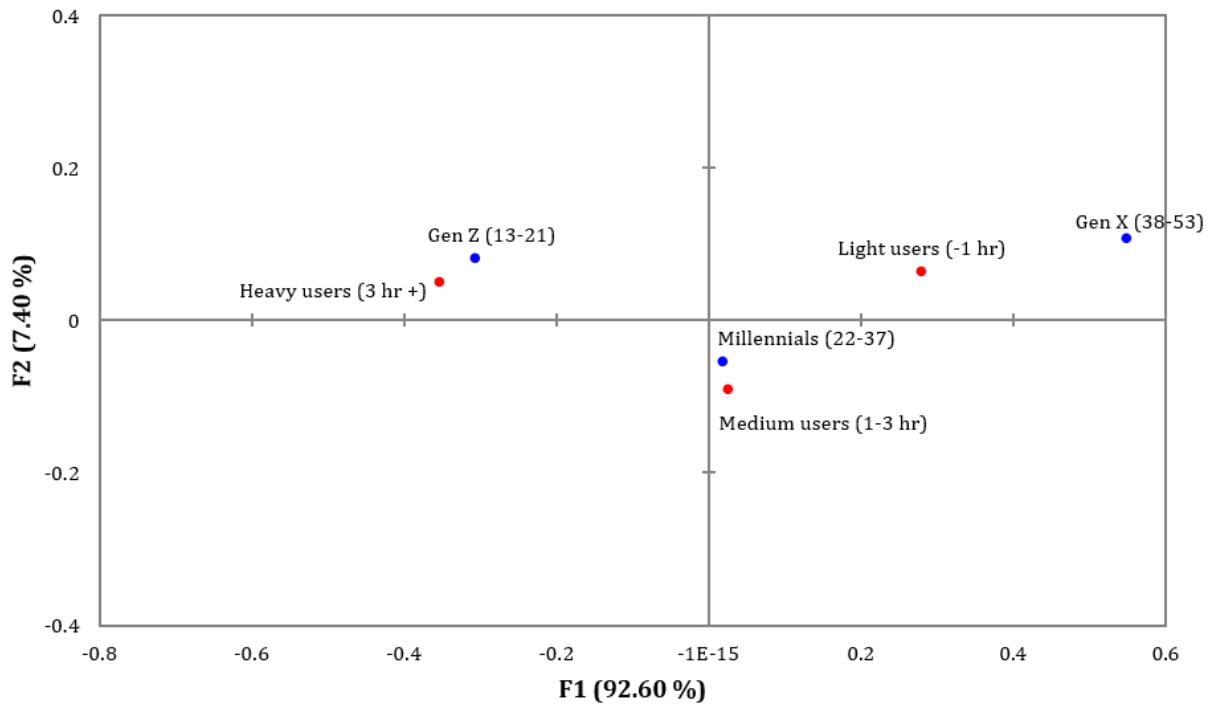
Figure 1. Symmetric plot of Generations vs Uses time
(axes F1 and F2: 100.00 %)

tools besides WhatsApp. 73.0% of the participants stated that they would continue to use WhatsApp even if it would charge a subscription fee.

The number of WhatsApp groups within the participants has range between 1 to 50 and the average is 6.8 (± 5.7). The average number of members in small groups is 4.9 (± 5.7) while the average is 45.9 (± 54.2) in large groups. Respectively, the most commonly used WhatsApp groups among the participants are consisted of 51.4% from friends, 34.1% from colleagues/classmates, 11% from family members and 3.5% from relatives. 77.3% of the participants indicate that they create WhatsApp groups for conversation/chat, 63.2% for informing, 32.4% for fun, 28.7% for professional issues, 14.3% for discussion of current affairs. It is seen that the subject matters of groups are mostly business/education (24.0%), private matters (21.3%), current affairs (14.5%), organization (14.0%) and gossips (12.6%).

The average time that is spent on WhatsApp is examined in three categories. Light users spend less than 1 hour in a day on WhatsApp as %33.5 of the participants is in this category. The second group is medium users who spend between 1 to 3 hours in a day on WhatsApp with the ratio of %37. And %29.5 of the participants are in the last group called heavy users and it consists of the people who spend more than 3 hours on WhatsApp. There is a significant relationship between WhatsApp use duration and the generations according to the result of correspondence analyse (X^2=43.05; p=.001). **Figure 1** shows how generations are related in a social space determined by WhatsApp group use duration.

When **Figure 1** examined, it is seen that WhatsApp is the most commonly used by the generation Z, the least by the generation X, and the Millennials are the moderate users. As the age increases the duration of WhatsApp use decreases. It is significant the use of WhatsApp (as an instant messaging application that is used by many individuals of all ages) is seen as high among the Z generation, which consists of people much more integrated with technology.
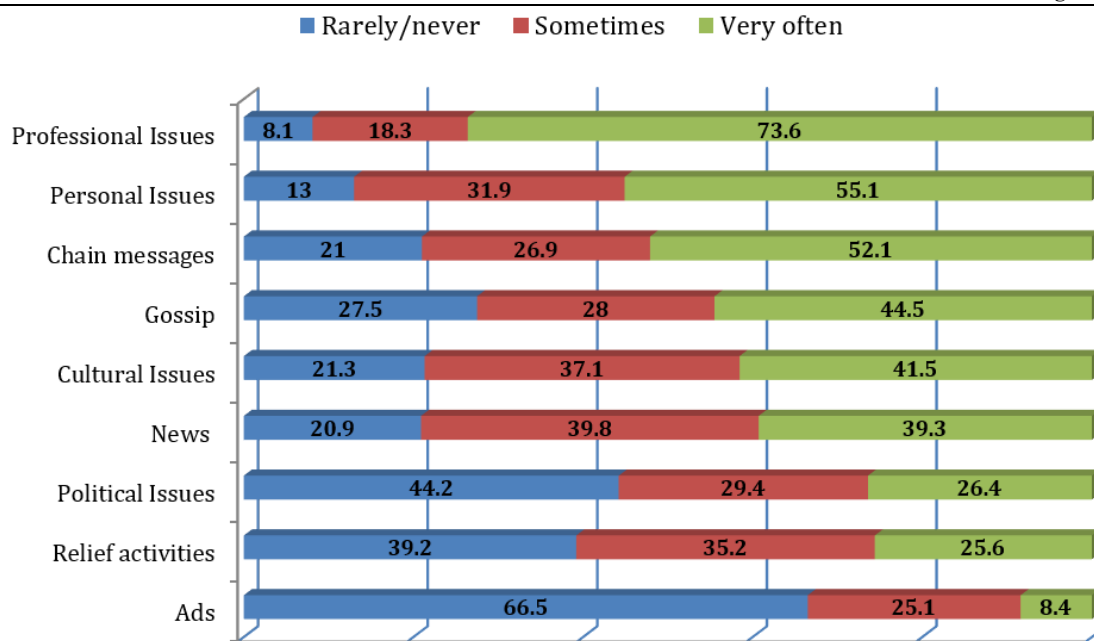
Figure 2. The Frequency of Sharing by Content Types in WhatsApp Groups

Contents of WhatsApp Group Use by Genders and Generations

In the questionnaire, participants were asked what they were most likely to share in the WhatsApp groups, and were asked to respond with the levels of very often, sometimes and rarely. **Figure 2** shows the frequency of sharing by the content types.

One of the most popular contents that participants share in WhatsApp groups is about professional issue related to work/school (73.6%). As the second, personal events and developments take place. 55.1% of the participants stated that they share their personal events and developments as very often and 31.9% of them stated as from time to time. Considering WhatsApp groups that are seen as a kind of micro social media, personal events and developments are seen very often shared in WhatsApp groups as on other social media.

Another content that is most shared in WhatsApp groups is chain messages. 52.1% of the respondents stated that they had very often shared chain messages in groups. Gossip sharing is another much shared content. 44.5% of the respondents stated that they very often and 28% sometimes shared gossip. The sharing of cultural issues is also very high (41.5 %).

The share of recent developments and news is also quite high. 39.3% of the participants very often and 39.8% sometimes share news. The total rate of news sharing reaches to 80% meanwhile only 20% of those who say they do not share news.

Politics, humanitarian relief activities and advertising contents appear to be less shared. 44.2% of the participants stated that they did not share political issues. According to other social media platforms such as Twitter and Facebook, it is seen that politics-related issues are much less shared in WhatsApp groups. This can be interpreted; as the limited participants of WhatsApp groups are more familiar to each other therefore there is little political sharing to influence others. Another low shared content namely humanitarian relief activities is a unique phenomenon especially in Turkey. As a society, it is one of Turkey's most important assets to help the needy and to try to resolve their problems. The activities carried out in this subject are being shared with WhatsApp groups in order to help needy. 26% of the respondents stated that they very often share

humanitarian relief activities. In general, it can be said that this is not a small proportion. In addition, 35% of those stated that they sometimes share this kind of content. Advertisements are the least shared issue in WhatsApp groups. 66% of the participants stated that they never shared ads content.

When the frequency of contents sharing in the WhatsApp groups is analysed according to the demographic variables, it is revealed important findings in terms of the basic subject of the research. In terms of gender, there are significant differences in personal issues, political issues and gossip sharing.

There is a significant relationship between gender and the sharing of personal issues (X^2=21.65; df=2; p=0.001). It is seen that females share more personal events than males in WhatsApp groups. While 63% of female very often share personal events, the rate is 45% among male participants. It can be understood that females tend to share the developments in their personal life more with their friends.

The relationship between gender and political issues sharing reveals that males tend to share political issues more than females (X^2=22.9; df=2; p=0.001). While 35% of males share political issues in WhatsApp groups, this rate is 19% among females.

Lastly, for gossip sharing in WhatsApp groups, there is a significant difference between men and women (X^2=41.6; df=2; p=0.001). While 53% of females very often share gossip, only 33% of male very often share gossip.

In terms of age generations, significant differences arise in four content types: Personal issues, chain messages, cultural issues and gossip.

There is a significant relationship between sharing of personal issues in WhatsApp groups and generations (X^2=14.4; df=4; p=0.006). To arise an understanding on relation of generations and usage levels of WhatsApp group contents, correspondence analyses have been conducted in the space defined by generations and usage levels of WhatsApp group contents.

Figure 3 shows how WhatsApp groups are used for sharing personal issues by the generations.
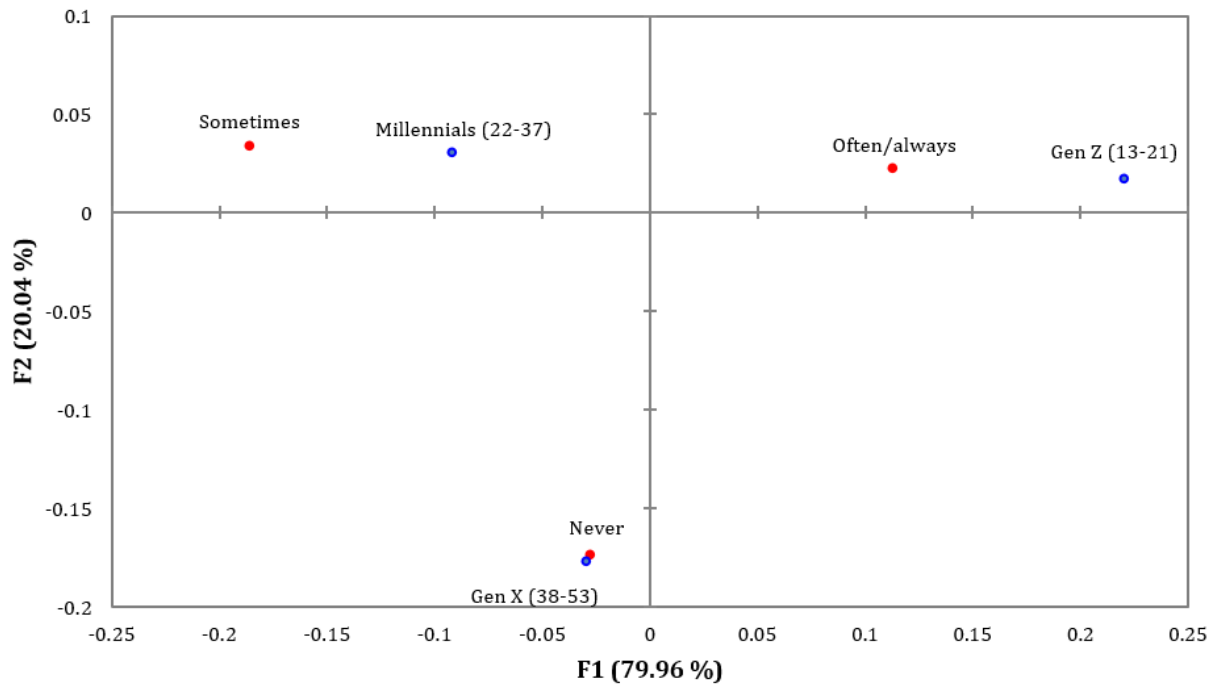
Figure 3. Symmetric plot of Generations vs Frequency of Sharing Personal Issues
(axes F1 and F2: 100.00 %)

In a social space structured to level of use, it is interestingly understood that the Z generation uses WhatsApp groups to share personal issues. The generation X, which is the oldest generation, can be seen for almost no use for WhatsApp for the purpose. In this context, it can be said that the content production to share personal issues in WhatsApp groups is monopolized by the younger generation and instrumentalized by the Z generation.
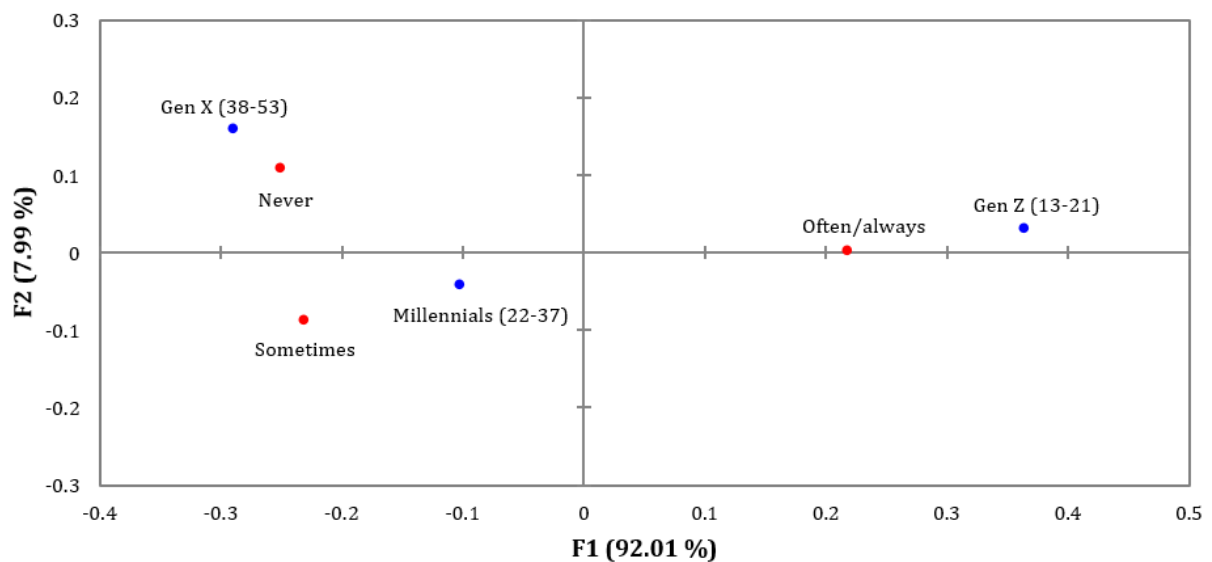

Figure 4. Symmetric plot of Generations vs Frequency of Sharing Chain Messages
(axes F1 and F2: 100.00 %)

Another significant relationship is found between generations and sharing of chain messages (X^2=35.9; df=4; p=0.001). **Figure 4**, which obtained from correspondence analysis, shows the frequency of sharing of chain messages with regard of generations.

According **Figure 4**, the chain messages are frequently shared by the younger generation, but never shared by the X generation of the eldest. On the other hand,

Millennials appear to be closer to sometimes option than very often. The Z generation forwards the messages to other friends without much thinking on it. Elderly people can be said to evaluate these messages appropriateness and then forward them to their friends.
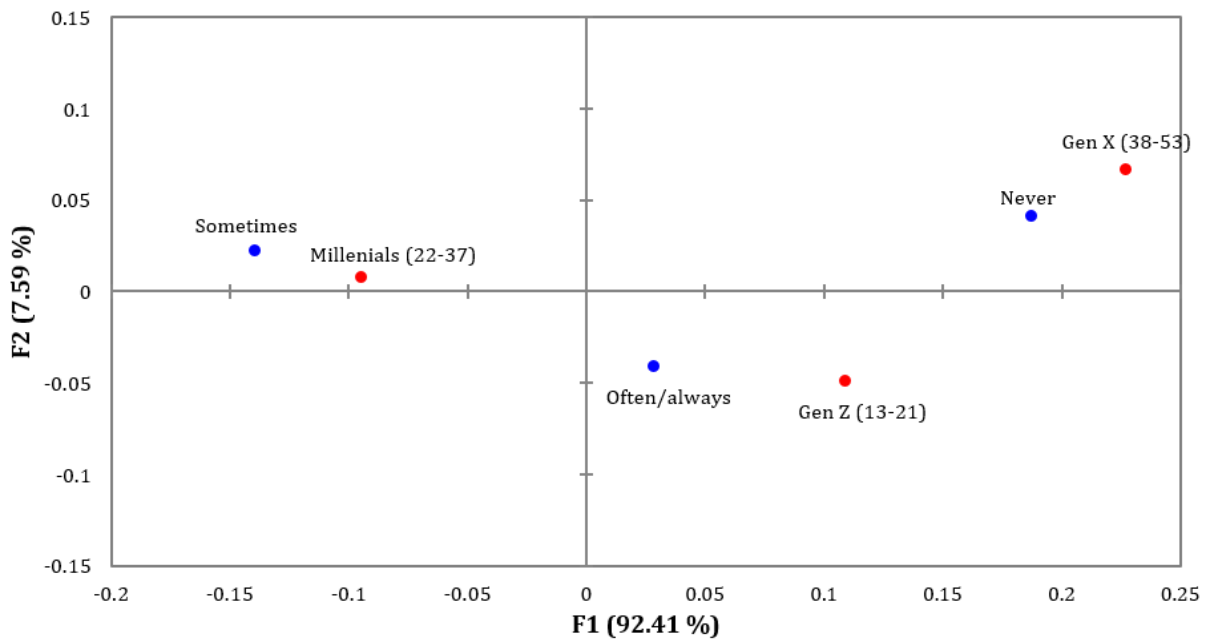

Figure 5. Symmetric plot of Generations vs Frequency of Sharing Cultural Issues
(axes F1 and F2: 100.00 %)

Another category that has a meaningful relationship with generations is the sharing of cultural issues (X^2=10.4; df=4; p=0.036). **Figure 5**, which was obtained from the correspondence analysis, shows how generations are related in a social space determined by cultural issues.

Figure 5 shows that, the generation Z is the most effective content generator about cultural issues in WhatsApp groups followed by Millennials generation. On the other hand, the X generation of elderly people almost never uses WhatsApp to produce content on cultural issues.

Gossip sharing in WhatsApp groups is associated with generations like with gender (X^2=46.8; df=4; p=0.001). **Figure 6**, which is obtained from correspondence analysis, shows how generations are related in a social space determined by gossip sharing.

Figure 6 indicates how generations are associated with gossip sharing. While the generation Z has reported that they consistently share gossip, the Millennials generation has reported that they occasionally gossip. On the other hand, Generation X reports that they do not use WhatsApp for this purpose.
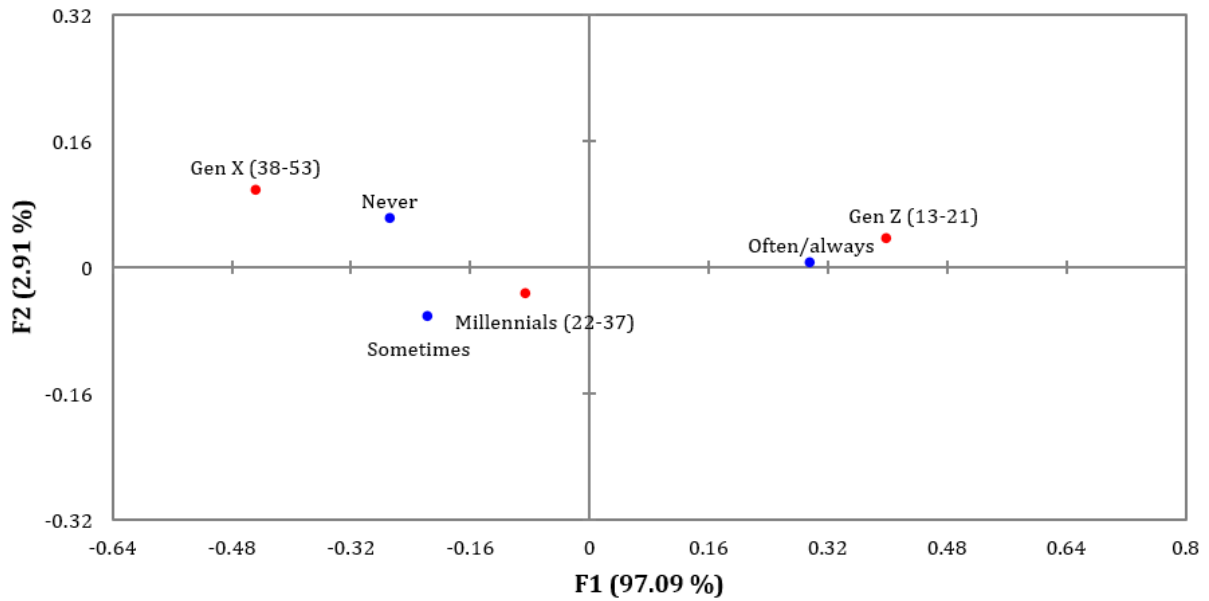
Figure 6. Symmetric plot of Generations vs Frequency of Sharing Gossip
(axes F1 and F2: 100.00 %)

Table 2. Logistic regression of sharing gossip

Variables in the Equation				
	B	**Wald**	**Sig.**	**Exp (B)**
Step 1ᵃ sex(1)	1.255	21.630	.000	3.507
age_generation		6.871	.032	
Gen Z (1)	1.158	6.696	.010	3.184
Millenials (2)	.591	3.233	.072	1.805
educ_level		7.411	.025	
primary (1)	-1.225	7.403	.007	.294
lycee (2)	-.234	.479	.489	.791
Constant	.951	9.570	.002	2.588

a. Variable(s) entered on step 1: sex, age_generation, educ_level

Gossip sharing differs according to gender and education level as in generations. Logistic regression analysis was performed to reveal the factors that determine the probability of gossiping in WhatsApp groups. The main reason for logistic regression analysis is that the variables are categorical.

There are three factors that determine the likelihood of gossiping in WhatsApp groups: gender, generations and level of education. Women share more gossip than men. The likelihood of women gossiping is 3.5 times higher then men. On the other hand, the generations become less likely to gossip as they age. Comparing with the X generation, gossiping likelihood of Millennials increases 1.8 times and for Z generation it increases 3.2 times. According to education level; comparing with bachelors, the likelihood of primary school graduates to gossip is reduced (0.3 times). On the other hand, there is no difference between the ones having bachelor degree and high school graduates in this respect.

CONCLUSION

Instant messaging applications have become a prominent communication tool over last decade and as a further step, a new form of communication has been emerged between one-to-one and one-to-many communication: Group-based communication.

One of the survey results, conducted among 633 participants (N=633), indicates the group-based communication importance as participants have ranked 'group-based communication' function (61.5%) as a fourth main factor to lead them use the WhatsApp application. The number of WhatsApp groups within the participants has range between 1 to 50 and the average is 6.8 (± 5.7). As a result, instant messaging applications owe its worldwide popularity to group-based communication function besides the features of easy-to-use, free of charge and ability of sharing multi-media.

It is revealed that the generations have differed from each other in the context of WhatsApp usage duration and shared contents. It could be said that Generation Z commonly use WhatsApp while Millennials seems to adapt the application. Generation X is the least users as age increases the duration of WhatsApp use decreases. The most popular content shares in WhatsApp groups are professional issues (73.6%) and personal events and developments (55.1%) followed by chain messages (52.1%) and gossip (44.5%), cultural issues (41.5%), news (39.3%), political issues (26.4%), humanitarian relief activities (25.6%) and advertisements (8.3%). The results prove that professional and personal subjects dominate the group-based communication in Turkey while levels of sharing of personal issues, chain messages, cultural issues and gossip are differed considering generations. These four categories of content are mostly used by younger generation (Z) and for almost never for X generation. Millennials are in the middle of those with 'sometimes/occasionally' level of sharing. It points out that the adoption of communication technology is high among generation Z as they use group-based communication for all categories of content defined before.

In terms of gender, there are significant differences in personal issues, political issues and gossip sharing. While females tend to share the developments in their personal life and gossip more than males, males share political issues more than females.

The use of shared content categories in the context of generations and genders in the WhatsApp groups makes it possible to understand the associations of communication technologies with the generations and genders. So the research has revealed not only how WhatsApp is used, but also the manner of how each generation and gender reproduce themselves.

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