

Patterns of digital behaviour on instant messaging platforms. WhatsApp uses among young people from Romania

Nicoleta Corbu, Mădălina Boțan, Raluca Buturoiu, Alexandru Dumitrache¹

Abstract: *This paper² examines the digital behaviour on one widely used instant messaging (IM) platform, namely WhatsApp, of young people in Romania, with a focus on the reasons for sharing information on the platform and dependency of using it. Within the broad framework of the digital single market, little is known about the motivations and behavioural patterns of young Europeans while using the increasingly popular IM platforms, nor is it clear whether country characteristics are relevant or not when evaluating the impact of such technological platforms on the life of young audiences. Rooted in the uses and gratifications perspective, this study uses media diaries (N = 229), filled in by young people in an ordinary day of the week and self-administered questionnaires in order to assess what might be the main gratifications that lead young and educated people to share information on WhatsApp and what makes them spend more time and be dependent on the platform on a daily basis. Main results show that the most frequent reasons why young Romanians use WhatsApp are social, professional, and instrumental. Moreover, the tendency to share content on the platform is higher for people who use it for instrumental and informative purposes. Dependency on the platform is significantly higher for young people who use it to fulfil affective needs (i.e., to express or receive affection or emotional support and avoid loneliness).*

Keywords: *digital single market, digital behaviour, uses and gratifications, media diaries, WhatsApp*

Introduction

Internet technologies have brought significant changes in both societal and personal lives, from the way people watch television or engage politically to their fitness and health regimes, the way they travel, shop, do banking and use social media. The prominence of technology platforms in today's society has been amplified by the large-scale Internet usage to the extent that it would now seem strange to the majority of people to live without them. The fact that people rely so much on apps (especially

¹ Nicoleta Corbu is Professor, PhD, National University of Political Studies and Public Administration, Bucharest. E-mail: nicoleta.corbu@comunicare.ro

Mădălina Boțan is Lecturer, PhD, National University of Political Studies and Public Administration, Bucharest. E-mail: madalina.botan@comunicare.ro

Raluca Buturoiu is Lecturer, PhD, National University of Political Studies and Public Administration, Bucharest. E-mail: raluca.buturoiu@comunicare.ro

Alexandru Dumitrache is MA student, National University of Political Studies and Public Administration, Bucharest. E-mail: com.dumitrache@gmail.com

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on IM apps) makes these and the companies that produce them increasingly more powerful and helps them to be further involved into different areas of our lives. The mobile apps developed by Web-based social platforms are nowadays ubiquitous on all mobile devices, literally shaping the way people form and share content. Through their pervasiveness in our daily lives, technology platforms transfer the social interactions from real life and imprint them in the online environment, where tangled new social relations form and proliferate³. This process, which has been initiated by web enabled social networks (Facebook, Twitter, etc.), began to gain momentum after the introduction of IM applications specifically designed for mobile phones (WhatsApp being the most widely used worldwide). The impact of technology platforms and their mobile extensions in people's day to day activities needs, therefore, more than ever to be scrutinized.

While many alternatives to WhatsApp are currently available in different online application stores (e.g., QQ Mobile, Skype, Facebook Messenger, WeChat), WhatsApp is currently the most popular messaging application with the largest name recognition, by far the largest user base, and the strongest corporate backing since its acquisition by Facebook in 2014⁴. Most people are heavily dependent on many technological platforms, such as WhatsApp, that seem to simplify their lives in many ways; however, there is increasing concern about their high addiction level and impact on regular users (especially in terms of spreading fake news and disinformation) and, more broadly, the behavioural patterns that become difficult to control and cure⁵.

Given the emerging importance of the WhatsApp platform it is not surprising that there is a growing interest in researching it. Prior WhatsApp dedicated work⁶ typically based its analysis on the content within the messages or on general message information such as the message's length, the size of the conversation group and temporal properties. Other approaches focus less on the descriptive results and try to unfold the motivations of WhatsApp usage. Such work shows that individuals use WhatsApp mainly motivated by leisure. In this sense, the variable with greatest influence on behavioural intention is hedonic motivation, followed by social influence, performance expectancy and effort expectancy⁷. These results indicate that people use WhatsApp mainly because it is fun, enjoyable, something more inherent to an entertainment application than to a messaging application. In a similar vein, this paper's main objective is to understand why and how young Romanians use WhatsApp and, more specifically, to investigate the new types of gratifications offered by IM platforms, compared to the traditional palpable or symbolic rewards offered by traditional media channels such as the TV or radio. In addition to this, our study tries to understand if there is a certain usage pattern (attitudinal and behavioural) among young people. To

³ Naveen Kumar and Sudhansh Sharma, 'Survey Analysis on the Usage and Impact of WhatsApp Messenger', *Global Journal of Enterprise Information System*, 8/3 (2017), 52–57.

⁴ Shaan Hyder and others, 'What's Wrong with WhatsApp?', *BMJ Innovations*, 2019, bmjinnov-2018-000290.

⁵ Lestari Widodo, 'Users' Perceptions of the WhatsApp Usefulness in Learning', *Open Journal for Information Technology*, 2/1 (2019), 1–8.

⁶ Christian Montag and others, 'Smartphone Usage in the 21st Century: Who Is Active on WhatsApp?', *BMC Research Notes*, 8/1 (2015), 331; Yi-Chia Wang, Moira Burke and Robert E. Kraut, 'Gender, Topic, and Audience Response: An Analysis of User-Generated Content on Facebook', in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, CHI '13 (New York, NY, USA, 2013), 31–34 <<http://doi.acm.org/10.1145/2470654.2470659>> [accessed 10 July 2020].

⁷ Cristóbal Fernández Robín, Scott McCoy and Diego Yáñez, 'WhatsApp', in *Social Computing and Social Media. Applications and Analytics*, ed. by Gabriele Meiselwitz, Lecture Notes in Computer Science (2017), 82–90.

this end, we use the general framework of the uses and gratifications (U&G) theory.

Apart from the classical gratifications typically associated with media consumption, the new technology platforms are expanding their array of influence by adding nascent gratifications⁸. There is consistent research exploring these new types of gratifications; nonetheless, they are mainly related to SNS (Social Network Services), without specifically looking into the particularities of the IM platforms that offer a different media environment altogether and a new style of more intimate interpersonal communication. The gratifications provided by SNS – getting information about social events, keeping in touch with friends, self-expression, and facilitators for interpersonal communication⁹ – are relevant for the IM platforms, but there are other medium-related behavioural intentions and motivations, which define the way people use such platforms. The emphasis, in the majority of cases, seems to be placed not on the communication itself, but on the connection it creates. IM platforms thrive because they facilitate more intimate conversations and, in general, deeper exchanges¹⁰, which are not always possible in face to face communication¹¹. Moreover, IM platforms may reduce social and personal anxiety by creating conversational intimacy. While face-to-face interaction can elicit higher levels of anxiety or uneasiness, the absence of the interlocutor is not satisfactory either because it deprives the participants of valuable information cues. The WhatsApp experience seems to be a functional compromise: the virtual participation of one or more interlocutors credibly mimicking their real presence and facilitating, therefore, the interpersonal communication¹².

However, the motivations and expectations which lay behind IM platforms usage are still, to our knowledge, a *terra incognita* in the communication studies. The scarce research that investigates WhatsApp usage is primarily covering the US continent, entirely omitting the European context and completely ignoring relevant country characteristics, which are fundamental in understanding the multifaceted nature of the communication via technological platforms. Therefore, our study could be a starting point towards understanding patterns of digital behaviour among young people from a European country. These patterns could be further analysed in relation to those of young people from other European countries, in the attempt to develop a framework for better understanding people's attitudes and behaviours within the digital ecosystem. In a broader context, our study could offer some insights into both the digital skills of young people from a European country and also about the digital culture in Romania, as a European country. In other words, our analysis could provide insightful information regarding at least two important areas under the umbrella of the digital single market – supporting media and digital culture and creating a digital society¹³.

⁸ S. Shyam Sundar and Anthony M. Limperos, 'Uses and Grats 2.0: New Gratifications for New Media', *Journal of Broadcasting & Electronic Media*, 57/4 (2013), 504–25.

⁹ Dominik J. Leiner and others, 'Functional Domains of Social Media Platforms: Structuring the Uses of Facebook to Better Understand Its Gratifications', *Computers in Human Behavior*, 83 (2018), 194–203.

¹⁰ Anabel Quan-Haase and Alyson L. Young, 'Uses and Gratifications of Social Media: A Comparison of Facebook and Instant Messaging', *Bulletin of Science, Technology & Society*, 30/5 (2010), 350–61.

¹¹ Evangelos Karapanos, Pedro Teixeira and Rúben Gouveia, 'Need Fulfillment and Experiences on Social Media: A Case on Facebook and WhatsApp', *Computers in Human Behavior*, 55 (2016), 888–97.

¹² Karapanos, Teixeira and Gouveia, 'Need Fulfillment and Experiences on Social Media', 888–97.

¹³ 'Digital Single Market', *European Commission*, 2020 <<https://ec.europa.eu/digital-single-market/en>> [accessed 17 June 2020].

In addition to this, recent studies seem to suffer of two main types of limitations: a) either they use classical research methods that lack the finesse to observe the filigree of the interactions facilitated by IM or; b) they use a predefined list of gratifications without exploring the new behavioural patterns of the online audiences. For a more fine-grained approach to data gathering and interpretation, the present study uses media diaries and questionnaires, which, corroborated, facilitate data interpretation by offering access to self-reported accounts of the original conversational exchange. Overall, our results provide several new insights into WhatsApp usage. Last but not least, we note the importance of these results with possible future research directions and applications.

Uses and gratifications (U&G) of Social Network Services (SNS). The particular case of WhatsApp

People's reasons of using different media outlets have been extensively studied, resulting in vast literature on U&G¹⁴. Dating back to Lasswell's¹⁵ classic approach on communication studies referring to the three functions of communication in society – surveillance, correlation, and transmission – the U&G theory, first developed and analysed with reference to “traditional” media outlets, is still gaining communication researchers' interest. U&G theory posits that the audience is, by excellence, active in choosing a specific media outlet in order to satisfy certain needs¹⁶. Based on this idea and taking into account that the audiences from today's media ecosystem are even more “active” than decades ago, it seems that the U&G approach might be a useful tool for social media effects analysis. Specifically, the U&G approach allows for a better understanding of different audience perceptions, behaviours and outcomes¹⁷.

Recent studies focusing on the reasons and motivations people hold in using SNS start from the idea that the main needs that media satisfy are basically the same as 20 years before. In fact, the reasons why people consume different “new” media (including SNS) are not so new. Instead, SNS are adding gratifications to the existing ones, mainly associated to traditional media outlets¹⁸. Nonetheless, gratifications that SNS regularly provide are mostly related to social needs – getting information about social events, keeping in touch with friends, self-expression, while facilitating interpersonal communication¹⁹.

There is a large body of literature regarding the U&G provided by SNS, especially within the American and Asian socio-political contexts²⁰. European

¹⁴ Elihu Katz, Jay G. Blumler and Michael Gurevitch, 'Uses and Gratifications Research', *Public Opinion Quarterly*, 37/4 (1973), 509–23; Robert Larose, Dana Mastro and Matthew S. Eastin, 'Understanding Internet Usage: A Social-Cognitive Approach to Uses and Gratifications', *Social Science Computer Review*, 19/4 (2001), 395–413;

¹⁵ H Lasswell, 'The Structure and Function of Communications in Society', in *The Communication of Ideas* (New York, 1948), 37–51.

¹⁶ Alan M. Rubin, 'Audience Activity and Media Use', *Communication Monographs*, 60/1 (1993), 98–105.

¹⁷ Andrew D. Smock and others, 'Facebook as a Toolkit: A Uses and Gratification Approach to Unbundling Feature Use', *Computers in Human Behavior*, 27/6 (2011), 2322–29.

¹⁸ Sundar and Limperos, 'Uses and Grats 2.0', 504–25.

¹⁹ Leiner and others, 'Functional Domains of Social Media Platforms', 194–203.

²⁰ Yi-Cheng Ku, Tsai-Hsiang Chu and Chen-Hsiang Tseng, 'Gratifications for Using CMC Technologies: A Comparison among SNS, IM, and e-Mail', *Computers in Human Behavior*, 29/1 (2013), 226–234; Yi-Cheng Ku, Rui Chen and Han Zhang, 'Why Do Users Continue Using Social Networking Sites? An Exploratory Study of Members in the United States and Taiwan', *Information & Management*, 50/7 (2013), 571–581; Quan-Haase and Young, 'Uses and Gratifications of Social Media', 350–61.

research in the domain tends to be rather scarce, yet on the rise²¹. With regards to the Romanian context, to our knowledge, this topic is entirely missing from media and communication research studies. This makes it difficult for researchers to offer an exhaustive list of reasons why people get engaged in various forms of social media, mainly due to some context-related factors (e.g., socio-demographic conditions, cultural conditions, prior knowledge and experience) which might mediate people's needs to access different types of media, therefore the gratifications they might obtain²². Nevertheless, there is consensus among researchers that gratifications obtained from social media use can be broadly categorized into five dimensions or factors, namely: (a) information, including information providing, giving, sharing, or exchange; (b) entertainment, including procrastination, escapism, recreation; (c) social interaction, including needs for socializing and relationship building, and keeping in touch with friends and family; (d) personal identity, including the need for popularity, self-expression, impression management, status signalling, and the need for demonstrating coolness; (e) convenience, pertaining to the need of using social media for reasons of its appeal and its convenience for communication and transactions²³.

Studies particularly referring to the U&G of a specific social medium are also numerous. Most of them refer to the reasons why people, especially the young ones, use Facebook, Twitter, Instagram or YouTube²⁴. However, only a few studies so far focus on analysing the gratifications obtained by using the IM platform WhatsApp.

The use of IM platforms (including WhatsApp) is often associated with gratifications related to communication and connection (i.e., keeping in touch with close friends, friends and family, and also group-based communication intended for planning and coordination)²⁵, affection (i.e., offering help and showing concern for others), entertainment (i.e., having fun and killing time), and relaxation (i.e., getting away from pressures and responsibilities²⁶). On IM platforms, users can engage in more intimate conversations, allowing them to share problems with communication

²¹ Karapanos, Teixeira and Gouveia, 'Need Fulfillment and Experiences on Social Media', 888–97; Aqdas Malik, Amandeep Dhir and Marko Nieminen, 'Uses and Gratifications of Digital Photo Sharing on Facebook', *Telematics and Informatics*, 33/1 (2016), 129–38.

²² Soon Li Lee and others, 'A Cross-Cultural Examination of SNS Usage Intensity and Managing Interpersonal Relationships Online: The Role of Culture and the Autonomous-Related Self-Concept', *Frontiers in Psychology*, 7 (2016), 376.

²³ Antonia Erz, Ben Marder and Elena Osadchaya, 'Hashtags: Motivational Drivers, Their Use, and Differences Between Influencers and Followers', *Computers in Human Behavior*, 89 (2018), 48–60; Louis Leung, 'User-Generated Content on the Internet: An Examination of Gratifications, Civic Engagement and Psychological Empowerment', *New Media & Society*, 11/8 (2009), 1327–47; Malik, Dhir and Nieminen, 'Uses and Gratifications of Digital Photo Sharing on Facebook', 129–38.

²⁴ Gina Masullo Chen, 'Tweet This: A Uses and Gratifications Perspective on How Active Twitter Use Gratifies a Need to Connect with Others', *Computers in Human Behavior*, 27/2 (2011), 755–62; Tae Rang Choi and Youngjun Sung, 'Instagram versus Snapchat: Self-Expression and Privacy Concern on Social Media', *Telematics and Informatics*, 35/8 (2018), 2289–98; Amandeep Dhir and Chin-Chung Tsai, 'Understanding the Relationship between Intensity and Gratifications of Facebook Use among Adolescents and Young Adults', *Telematics and Informatics*, 34/4 (2017), 350–64; Erin E. Hollenbaugh and Amber L. Ferris, 'Facebook Self-Disclosure: Examining the Role of Traits, Social Cohesion, and Motives', *Computers in Human Behavior*, 30 (2014), 50–58; Yi-Ting Huang and Sheng-Fang Su, 'Motives for Instagram Use and Topics of Interest among Young Adults', *Future Internet*, 10/8 (2018), 77.

²⁵ Karen Church and Rodrigo de Oliveira, 'What's Up with Whatsapp?: Comparing Mobile Instant Messaging Behaviors with Traditional SMS', in *Proceedings of the 15th International Conference on Human-Computer Interaction with Mobile Devices and Services*, MobileHCI '13 (New York, NY, USA, 2013), 352–361 <<http://doi.acm.org/10.1145/2493190.2493225>> [accessed 10 June 2020].

²⁶ Quan-Haase and Young, 'Uses and Gratifications of Social Media', 350–61.

partners more easily. “The near-synchronous nature of the IM exchange allows communication partners to engage in deeper exchanges with affection”²⁷, which could mean that WhatsApp might “unlock new opportunities for intimate communications that are not present in f2f and other synchronous communication channels”²⁸. Another important plus brought in by WhatsApp is that it offers people support in crafting the communication experience, while significantly reducing the social anxiety sometimes associated with face-to-face interaction. This might be as important as the idea that, while being on WhatsApp, one might “feel” the presence of the interlocutor – virtual participation is sometimes better than no participation at all²⁹.

Given this backdrop and the following two gaps identified in the literature: (1) to our knowledge, there is no research study so far focusing on the U&G of social media in Eastern European countries (Romania included) – therefore little is known about the U&G of traditional media in this socio-political context, where the existing media outlets are mainly considered to be used for informative purposes, especially on political matters³⁰ and (2) research studies document the idea that people’s reasons for using a specific media outlet or application might be age-sensitive, in the sense that the elderly, for example, could be more motivated by the instrumental value of new media outlets (i.e., communicating with their children and grandchildren), and also for safety and security reasons³¹ (for an overview regarding the elderly habits and reasons of using technologies and mobile communications in Romania, see Fernández-Ardèvol & Ivan, 2016, 2015; Ivan & Fernández-Ardèvol, 2017); however, little is known about the reasons why Romanian young people use certain media applications and the possible gratifications they receive. Therefore, we formulate the following research question:

RQ1. What are the main reasons for which young people from Romania use IMs platforms, particularly WhatsApp?

Engagement on social media. Engagement on IM platforms

Research on engagement on SNS is very timely, mainly due to the ascension of a series of phenomena related to fake news and online disinformation. Today, researchers (not only from communication fields, but also from advertising and marketing) are trying to determine and analyse the potential drivers for media viralisation and persuasion³². Among them, there is the inherent characteristic of this type of media outlet – the “participatory nature” of media platforms³³ – which “invites” people to become active content producers rather than simple passive consumers³⁴. One way of becoming content “prosumer” (the term coined by Alvin Toffler in his Third Wave

²⁷ Quan-Haase and Young, ‘Uses and Gratifications of Social Media’, 359.

²⁸ Karapanos, Teixeira and Gouveia, ‘Need Fulfillment and Experiences on Social Media’, 895.

²⁹ Karapanos, Teixeira and Gouveia, ‘Need Fulfillment and Experiences on Social Media’, 888–97.

³⁰ Matthew Loveless, ‘Media Dependency: Mass Media as Sources of Information in the Democratizing Countries of Central and Eastern Europe’, *Democratization*, 15/1 (2008), 162–83.

³¹ Loredana Ivan and Mireia Fernández-Ardèvol, ‘Older People and the Use of ICTs to Communicate with Children and Grandchildren’, *Transnational Social Review*, 7/1 (2017), 43.

³² Qin Gao and Chenyue Feng, ‘Branding with Social Media’, *Comput. Hum. Behav.*, 63/C (2016), 868–890.

³³ Chei Sian Lee and Long Ma, ‘News Sharing in Social Media: The Effect of Gratifications and Prior Experience’, *Computers in Human Behavior*, 28/2 (2012), 332.

³⁴ Oded Nov, Mor Naaman and Chen Ye, ‘Analysis of Participation in an Online Photo-Sharing Community: A Multidimensional Perspective’, *Journal of the American Society for Information Science and Technology*, 61/3 (2010), 555–66.

book from 1980) is by sharing media content. As people share their opinions, insights, knowledge, and other content, they become co-creators of the initial message. Further, various distinct content types (e.g., photos, videos, news stories) are contributed online and shared by users in different online communities, due to different gratification factors³⁵.

The social media engagement behaviour (SMEB) construct identifies and explicates the different types of engagement behaviours that users exhibit on social media platforms. There are seven types of potential SMEB: co-creation, positive contribution, consumption, dormancy, detachment, negative contribution and co-destruction³⁶. While co-creation, positive contribution, negative contribution and co-destruction represent active engagement behaviours that potentially impact on other social media users, consumption, dormancy and detachment are more passive and/or individualized forms of engagement. Other research studies suggest that among the motivational factors driving users to share information there are information seeking, socializing, entertainment and status seeking³⁷.

Following the same line, there are research studies which identify and develop on people's motivations to share material on social media. The first reason is that people share to give others a better sense of who they are and what they care about – in accordance with Goffman's (1959) concept of self-presentation; the second is social conversation – the most powerful driver in the formation of positive attitude toward sharing (i.e., people do not share information which might be valuable, but rather interesting for others); the third is the easy connection – people share information as a way to stay connected; the last is self-management which shows that consumers share content to manage their own knowledge and learning (i.e., for their own future use)³⁸.

Building on the existing literature, we want to investigate the relationship between the gratifications sought on IM platforms and people's level of engagement on the platform. Therefore, the second research question is:

RQ2. What kind of gratifications sought on WhatsApp is associated with the willingness to share information on the platform?

Social media dependency. Dependency on IM platforms

Dependency on the media dates back to early mass communication studies. For example, one classic work referring to the potential “troublesome” effect of the media offers the distinction between “heavy” and “light” users of the media³⁹. Even though nowadays – when we cannot talk about going online, but, instead, about being online – it is rather difficult to make a clear distinction between the two types of social media users, the typology might still apply. Specifically, dependency over a specific medium might mean that it is “an indispensable tool for one's everyday life”⁴⁰. Researchers insist

³⁵ Lee and Ma, 'News Sharing in Social Media', 331–39.

³⁶ Rebecca Dolan and others, 'Social Media Engagement Behaviour: A Uses and Gratifications Perspective', *Journal of Strategic Marketing*, 24/3–4 (2016), 266.

³⁷ Lee and Ma, 'News Sharing in Social Media', 331–39.

³⁸ Chang-Dae Ham and others, 'Exploring Sharing Behaviors across Social Media Platforms', *International Journal of Market Research*, 61/2 (2019), 157–77.

³⁹ G Gerbner and others, 'Living with Television: The Dynamics of the Cultivation Process', in *Perspectives on Media Effects* (1986), 17–40.

⁴⁰ Namkee Park and others, 'Factors Influencing Smartphone Use and Dependency in South Korea', *Computers in Human Behavior*, 29/4 (2013), 1769.

on the idea that dependency is different from addiction, which reflects an inability to control one's use⁴¹. While addiction is considered negative, dependency does not necessarily contribute to negative outcomes. Nevertheless, dependency on a specific medium can "play an important role in various cognitive, affective, and behaviour media effects"⁴².

One potential effect that may result from the motives people have for using a medium is dependency. According to Rubin⁴³, one's motivations for using a medium can be related to the degree to which someone is dependent upon that medium. An individual's social and psychological characteristics (e.g., personality traits, self-esteem, and perceived connection to others) directly relate to one's dependency on media to fulfil goals, resulting in increased media use. Other reasons explaining higher levels of media dependency refer to the existing alternatives – if a certain medium is among the very few or either the single choice of satisfying a certain need, then the dependency over that medium increases⁴⁴. (Social) media dependency might be seen from two perspectives – either as a dependent or an independent variable. In this vein, research studies document that the excessive use of SNS might generate SNS dependency (SNS dependency as a dependent variable). In turn, SNS dependency might be responsible for certain behaviours including, for instance, physical and emotional reactions, interpersonal and psychological outcomes (SNS dependency as an independent variable)⁴⁵. Nonetheless, very little is known so far about the real motives behind social media dependency as such. For example, there are some references about how certain motives might be associated with the likelihood to be more dependent on the internet. Those people who use SNS in order to relieve boredom, to seek information, to have control over others, and to interact with others were more likely to be dependent on the internet to achieve their goals⁴⁶.

In what regards the relationship between SNS dependency and U&G, studies are still scarce and rather exploratory. Specifically, there are studies revealing that dependency over SNS is associated with socialization and relationship building⁴⁷. Similarly, more frequent SNS participation was predicted by the motivations of seeking friendship, relationship maintenance, and escapism, along with impulsive use of the Internet⁴⁸. On the other hand, there are studies which show that entertainment

⁴¹ Begum Satici and others, 'Social Competence and Psychological Vulnerability as Predictors of Facebook Addiction', *Studia Psychologica*, 56/4 (2014), 301–8.

⁴² Amber L. Ferris and Erin E. Hollenbaugh, 'A Uses and Gratifications Approach to Exploring Antecedents to Facebook Dependency', *Journal of Broadcasting & Electronic Media*, 62/1 (2018), 52.

⁴³ Alan M. Rubin, 'The Uses-and-Gratifications Perspective of Media Effects', in *Media Effects: Advances in Theory and Research*, 2nd Ed, LEA's Communication Series (Mahwah, NJ, US, 2002), 525–48.

⁴⁴ Ferris and Hollenbaugh, 'A Uses and Gratifications Approach to Exploring Antecedents to Facebook Dependency', 51–70.

⁴⁵ Daria J. Kuss and Mark D. Griffiths, 'Social Networking Sites and Addiction: Ten Lessons Learned', *International Journal of Environmental Research and Public Health*, 14/3 (2017).

⁴⁶ Ferris and Hollenbaugh, 'A Uses and Gratifications Approach to Exploring Antecedents to Facebook Dependency', 51–70; Shaojing Sun, Alan M. Rubin and Paul M. Haridakis, 'The Role of Motivation and Media Involvement in Explaining Internet Dependency', *Journal of Broadcasting & Electronic Media*, 52/3 (2008), 408–31.

⁴⁷ Tracii Ryan and others, 'The Uses and Abuses of Facebook: A Review of Facebook Addiction', *Journal of Behavioral Addictions*, 3/3 (2014), 133–48.

⁴⁸ Georgios Floros and Konstantinos Siomos, 'The Relationship between Optimal Parenting, Internet Addiction and Motives for Social Networking in Adolescence', *Psychiatry Research*, 209/3 (2013), 529–34.

gratifications were the strongest predictor of SNS dependency⁴⁹ and reveal that using SNS for diversion and self-presentation is strongly related to SNS dependency. Therefore, we might assume that higher levels of dependency on a specific medium could be linked to a series of intrinsic or extrinsic factors, including the type of the medium, socio-demographic characteristics, prior knowledge, prior experience, personal predispositions and so on.

Based on these ideas, this paper aims at analysing whether there is a connection between higher levels of dependency on SNS (specifically on WhatsApp) and certain gratifications young people sought on the platform. Accordingly, we formulate the third research question:

RQ3. What kind of gratifications sought on WhatsApp is associated with higher levels of dependency on the platform?

All in all, with a focus on the U&G perspective, the present study aims at contributing to the emerging field of measuring contemporary media consumption habits. Besides the identified gaps in the research studies to date, which were previously mentioned and which we try to address with the paper, the novelty of our study resides in its methodological approach. Specifically, we use media diaries (i.e., a form of longitudinal self-reporting media consumption habits) as well as a survey controlling for some variables associated with the reasons why young people access SNS and the gratifications they obtain. In other words, we aim at revealing young people's social media consumption habits – in terms of motives and gratifications sought on the WhatsApp platform.

Methodology

To investigate the connection between gratifications sought on WhatsApp and willingness to share information on the network, and dependency, respectively, we used media diaries and a survey (N = 229) collecting data from third year undergraduate students from a social sciences university in Romania. Media diaries, as self-report longitudinal research methods, have proven to be insightful methods of data gathering for assessing media consumption patterns⁵⁰. We chose this particular method in order to address one of the early and still pervasive critique of the “uses and gratification” studies, namely that gratifications’ dimensions are “more dependent upon research input than subjects’ responses⁵¹.”

Procedure

Students were trained to fill in online media diaries, logging data about their one ordinary day interactions on WhatsApp, in terms of actors, type of interactions,

⁴⁹ Hsuan-Ting Chen and Yonghwan Kim, ‘Problematic Use of Social Network Sites: The Interactive Relationship between Gratifications Sought and Privacy Concerns’, *Cyberpsychology, Behavior and Social Networking*, 16/11 (2013), 806–12.

⁵⁰ D. R. Anderson and others, ‘Estimates of Young Children’s Time with Television: A Methodological Comparison of Parent Reports with Time-Lapse Video Home Observation’, *Child Development*, 56/5 (1985), 1345–57; Karin M. Fikkers and others, ‘Double Dose: High Family Conflict Enhances the Effect of Media Violence Exposure on Adolescents’ Aggression’, *Societies*, 3/3 (2013), 280–92; Karin M. Fikkers, Jessica Taylor Piotrowski and Patti M. Valkenburg, ‘Assessing the Reliability and Validity of Television and Game Violence Exposure Measures’, *Communication Research*, 44/1 (2017), 117–43.

⁵¹ Guy E. Lometti, Byron Reeves and Carl R. Bybee, ‘Investigating the Assumptions of Uses and Gratifications Research’, *Communication Research*, 4/3 (1997), 323.

type of content, and reasons why they initiated and/or continued each conversation until it ended. The online logs were set up on Qualtrics. At the end of the media diaries, participants were asked to complete a short survey.

The data from the media diaries was coded by three independent coders, who were trained to this purpose, using an eight-dimension scale built both on previous uses and gratifications studies, but also using inductive manual coding on a subsample of 50 logs. Coders reliability was assessed on a subsample of 19 logs and ranged between .78 and 1.00 (we used Krippendorff's Alpha reliability estimation).

The uses of the IM platform were labelled social, professional, entertainment, instrumental, informative, affective, ego-related, and routine. The social dimension covered the need of the respondents to maintain relationships with friends or family (including chit-chat conversations), with fellow students (but not for problem-solving issues), or professional colleagues (for people who were already employed, excluding problem-solving issues). The professional one was focused on problem solving issues (both academic and professional ones), such as preparing and/or solving tasks, projects, coordinating appointments, using professional tools, etc.). Entertainment was considered as a valid use when respondents used the platform to avoid boredom, seek pleasure, and for pastime or escape (procrastinate, avoid responsibilities). Instrumentality referred to the use of WhatsApp to deal with practical matters, excluding academic and job-related events, such as setting the details of a meeting, date, event, endeavour, etc.). Respondents were considered to be using WhatsApp for informative purposes if they either accessed or offered information of special interest, or exchanged opinions or discussed different matters of interest (not for professional or academic purposes). The affective dimension referred to using the platform to express or receive affection or emotional support and avoid loneliness. Ego-related uses were coded in the cases of using the platform to strengthen self-esteem, for validation, being in the loop (not missing things), offering "expertise" on various issues, for self-gratification purposes (it made people feel good). Routine referred to the way people use WhatsApp, "because this is what I do every day". It was associated with connections rituals, daily habits, etc.

Each gratification was coded as "1", if at least any of the uses associated with it was positive, and "0" if all associated uses were absent.

Measures

Data in the survey was used to build scales measuring willingness to share information on the platform and WhatsApp dependency.

The willingness to share information was measured using a 7-item scale measured from 1 "never" to 7 "very often", assessing the willingness to share various types of information on WhatsApp (see Appendix). We used CFA using principal component analysis; items grouped on one factor, with loadings from .559 to .783 ($\alpha = .851$, $M = 4.16$, $SD = 1.36$).

WhatsApp dependency scale was adapted from a social media dependency scale⁵². It consisted of six items (see Appendix), which loaded on one factor (CFA, principal component, varimax rotation), with loadings from .739 to .838 ($\alpha = .876$, $M = 3.99$, $SD = 1.52$).

⁵² C. Ross and others, 'Personality and motivations associated with Facebook use', *Computers in Human Behavior*, 25/2 (2009), 578-86.

Gratifications were coded as dummy variables following the coding procedure described above.

Findings

Generally speaking, young people from Romania use WhatsApp mostly for social, professional, entertainment, and instrumental purposes. Additionally, but less frequently, they use it to fulfil informative and affective needs, and only rarely to ego-related or routine ends. (Table 1) These results are in line with those from previous studies, reporting that gratifications that SNS regularly provide are mostly related to social needs – getting information about social events, keeping in touch with friends, self-expression, and facilitators for interpersonal communication⁵³.

Table 1. Descriptives of frequency of WhatsApp use for various types of gratifications

Type of gratifications	Mean	SD
Social	0.71	0.45
Professional	0.60	0.49
Entertainment	0.49	0.50
Instrumental	0.47	0.50
Informative	0.41	0.49
Affective	0.41	0.49
Ego-related	0.22	0.41
Routine	0.05	0.21

As far as the willingness to share information is concerned, results show that using the platform for informative ($b = .189$, $SE = .178$, $p < .01$) and instrumental ($b = .160$, $SE = .175$, $p < .05$) purposes are significant predictors of the willingness to share information. Nevertheless, this does not mean that people who mainly use the platform for these purposes are more inclined to share information, but rather that willingness to share information increases significantly only in relation to these two types of gratifications. Additionally, descriptives show that people who gain these particular gratifications when using the platform, and those who use the platform mainly for ego-related purposes report the highest willingness to share information via WhatsApp. In other words, people who fulfil informative ($M = 4.40$), instrumental ($M = 4.40$), and ego-related ($M = 4.43$) needs are more willing to share information, but using the platform for informative ($\Delta M = .54$) and instrumental ($\Delta M = .45$) purposes helps increasing this willingness, when compared to those to whom these gratifications are rather irrelevant. This means that, in terms of potential for viralisation, the highest potential to make an information becoming viral via WhatsApp would be to target people who use the platform to these two ends (instrumental and informative), with an increased likelihood of success of people using the platform for both purposes ($M = 4.72$, $\Delta M = .69$ difference in willingness to share information between people who jointly use the platform for both needs and those who do not associate these two types

⁵³ Leiner and others, ‘Functional Domains of Social Media Platforms’, 194–203.

of gratifications).

In terms of dependency on the platform, using it for affective purposes ($b = .208$, $SE = .209$, $p < .01$) significantly predicts dependency, which is to say that the more people use WhatsApp to fulfil affective needs, the more likely they are to be dependent on the platform. The descriptives show that, even though not a significant predictor (possible due to the very low number of people who use WhatsApp as a form of routine, only 5% of the sample), using the platform for routine reasons is associated with higher dependency on the platform ($M = 4.89$, $\Delta M = .95$ difference between people who use the platform for routine purposes and those for whom routine is irrelevant). The need for affection is more than a significant predictor of the dependency on the platform. It is also associated with higher dependency levels ($M = 4.45$), as compared to both the other types of gratifications and with people not using WhatsApp for affective reasons ($\Delta M = .77$).

Summing up, using WhatsApp for informative and instrumental purposes predicts the willingness to share information, while affective gratifications increase the dependency on the platform.

Discussion and conclusions

Based on the uses and gratifications (U&G) literature, the present study aimed to investigate the main reasons why young Romanians use the IM platform WhatsApp. Our results indicate that WhatsApp usage is mainly related to getting information about social and professional events, keeping in touch with friends and family, self-expression, facilitating interpersonal communication. The motivational factors driving users to share information are information seeking, socializing and entertainment. More specifically, young users who associate the Instant Messaging App with informative (including information providing, giving, sharing, or exchange) and instrumental gratifications (i.e., dealing with practical non-professional matters, such as setting the details of a meeting, date, event, endeavour, etc.) are more willing to share information and to contribute, therefore, to amplifying the visibility of a certain topic or information. This finding suggests that the participatory nature of WhatsApp is a relevant driver for media viralisation and persuasion. Young people seem to pragmatically evaluate the information coefficient and the utility of a certain media content or piece of information and actively participate in their online dissemination, becoming co-creators of the initial message.

In terms of WhatsApp dependency, our results show that affective gratifications (i.e., expressing or receiving affection or emotional support and avoiding loneliness), even if not so widespread, predict dependency on the platform to a larger extent than their informative and instrumental counterparts. The fact that the need for affection is more than a significant predictor of platform dependency and that it is also associated with higher dependency levels confirms the theoretical premise that IM platforms create a more personal environment where symbolic gratifications are not only possible, but also encouraged by the more intimate nature of the channel itself⁵⁴. The connection WhatsApp creates is even more important than the content exchange itself for certain audience members and the more they wish to fulfil affective needs, the more time they spend on the platform. Affective gratifications define the way young people use WhatsApp and are a medium-related characteristic. Such symbolic intentions

⁵⁴ Quan-Haase and Young, 'Uses and Gratifications of Social Media', 350–61.

and motivations seem to confirm the postulate that IM platforms thrive because they facilitate more intimate conversations and, in general, deeper exchanges.

In addition to this, our findings indicate that young women tend to be more dependent on the platform than men, even though they do not necessarily use it more than men to fulfil affective needs. This insight deserves further investigation in order to isolate if this preliminary conclusion is sample-related matter or if, in general, young women report more dependence on technological platforms regardless of the motives for using them. Exploring the motivations behind this would be also tremendously valuable in understanding how WhatsApp crafts the whole communication experience.

The present study is not without limitations. Firstly, it used only self-report measures (media diaries and questionnaires). In future studies, mixed methods may be used in order to gain further insights into the relationships between WhatsApp usage and both expected gratification and level of created dependency. Secondly, the study sample comprised only Romanian university students. Therefore, to generalize the results, other more nationally representative samples from Romania and other countries must be included in future studies. Despite its limitations, the present study deciphers several distinctive features of WhatsApp usage. As such, the study is one of the first, to the best of the authors' knowledge, that has simultaneously examined in a specific national context the relationship between young educated Romanians' most commonly used instant messaging platform, their digital behaviour while on the platform, and the gratifications derived from the WhatsApp usage. What is more, the study provides significant evidence to the literature regarding associations between expected benefits and reasons for using digital platforms. Finally, the research sheds more light upon the digital behaviour of young adults and their reasons for preferring and sharing a certain type of digital content.

To conclude, we expect this study to fuel follow-up investigations covering other type of WhatsApp publics, as well as delving further into gender usage patterns and, more broadly, into the interplay between WhatsApp usage and specific gratifications acquired via platform use. At the same time, we believe that this study could be a valuable starting point in a further analysis comparing the digital skills and culture in a trans-national context (i.e., the digital skills and culture of young Romanian people compared to those of other young Europeans), in the attempt to better understand some aspects of what is depicted as the digital single market of the European Union.

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Appendix 1

Willingness to share scale

How often do you share information/ content received via WhatsApp (1 - never; 7 - very often)

1. If it has an interesting topic.

2. If what you share makes you look good.
3. If you find the content to be funny.
4. If it has an appealing headline.
5. If it is a “hot” topic, highly discussed in that particular time period.
6. If you believe the content might influence others.
7. If the topic is in line with your political beliefs.

WhatsApp dependency scale

Please indicate to what extent you agree with the following statements (1 completely disagree; 7 completely agree)

1. WhatsApp is part of my everyday activity.
2. I am excited to tell people I am on WhatsApp.
3. I dedicate part of my daily schedule to WhatsApp.
4. I feel out of touch when I haven't logged on to WhatsApp in a while.
5. I prefer using WhatsApp more than other instant message platforms (SMS, FB messenger, Tumblr, etc.)
6. I would be sad if WhatsApp shut down.