News Media Uses During War

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NEWS MEDIA USES DURING WAR
The case of the Syrian conflict

Claudia Kozman and **Jad Melki**

This study contextualizes the theory of uses and gratifications in war and conflict, using the Syrian conflict as a case study. The survey of 2192 displaced Syrian nationals in four countries (Lebanon, Jordan, Syria, and Turkey) revealed major uses and gratifications of traditional and new media. Among all media, television consumption showed the highest correlation with people's perception of television as being useful for providing information, while among digital media, social media were the most important for receiving information.

KEYWORDS   Arab audiences; Arab journalism; journalism and war; media and war; media literacy; news literacy; Syria war; uses and gratifications

Introduction

The Arab uprisings ushered a new era of radical change and conflict. Mass demonstrations that spread across the Arab world in 2010 led to the fall of governments in Egypt and Tunisia, civil war in Libya, and political unrest in various other countries. Among these countries, Syria has perhaps faced the most unexpected outcomes yet. Beginning with peaceful anti-government protests in March 2011, the crisis in Syria has dragged on for several years, resulting in the death of more than a quarter million people and became one of the most gruesome wars in modern history. Besides the casualties, the Syrian war has displaced an estimated nine million people (Migration Policy Center 2014).

In such disastrous situations, access to media changes, as do daily and social needs. Through a survey questionnaire, this study examines the media uses of 2192 Syrian nationals living in Syria, as well as in Lebanon, Turkey, and Jordan, the three countries hosting the largest number of Syrian refugees. Using the Syrian conflict as a case study, this article applies the uses and gratifications (U&G) theoretical framework to a war and conflict situation—a matter surprisingly understudied despite the record number of people displaced globally due to war and conflict (UNHCR 2015b). It explores the news consumption habits of war refugees, focusing on the main uses and motivations that drive these patterns across various types of traditional and new media. The aim is to understand which news media are available during conflict, which media channels fulfill what needs and gratifications, and which media sources and needs people prioritize during times of war and distress. Literature on the effects of war on media uses and media-related needs is scarce, with very little research on the media uses of refugees and displaced persons (cf. Dotan and Cohen 1976; Georgiou 2013; Lev-On 2012). Unfortunately, as a region plagued by continuous conflict and civil strife, the Middle East is ripe for war and media effects research. Research on such media uses offers a better understanding of how news sources can deliver appropriate content to populations during dangerous and uncertain situations.

By employing the U&G framework to examine a population affected by war and conflict, we hope to contribute to the already considerable and worthy body of work on U&G. Our objective is to demonstrate that U&G can inform not just media uses and gratification among general populations in everyday situations, but also among displaced persons whose everyday lives are marked by uncertainty, and who may nevertheless turn to media to gratify a multiplicity of needs.

Uses and Gratifications During War

Seeking to understand the role of media in society, media scholars have theorized different types of media effects, among which is audience-based research in the area of social psychology (McQuail 2010; Ruggiero 2000). One theoretical framework that has consistently found a place in media research is Katz, Blumler, and Gurevitch's (1974) U&G approach. Due to its ability to explore the motives behind the use and adoption of various media, U&G has found success at the many introductions to new technologies, starting from the radio to today's social media (Ruggiero 2000).

Contrary to the earlier "mechanistic perspective" of the media as able to alter attitudes and the audience as "passive and reactive" (Rubin 2009, 165), U&G places agency on the audience whose members choose media to gratify their needs. It focuses on individuals' media consumption and the motivations behind it (McQuail 2010; Rubin 2009). The intentional and selective involvement of individuals with the media (Blumler 1979) is what distinguishes this framework from previous theorizing of audiences (McQuail 2010).

Although the initial U&G studies merely identified people's motives in using media, later research focused on explaining media behavior, furthering our understanding of the effects of media use (Rubin 2009). Before Katz, Blumler, and Gurevitch's (1974) conceptualization of U&G, however, early researchers, such as Lazarsfeld (1940), were invested in understanding the appeals of new media (Rubin 2009).

In the 40 years since U&G was first conceptualized, researchers have identified the main uses and gratifications for media consumption, which center on cognitive, social, emotional, and habitual areas (Wang and Tchernev 2012). Among the most common ones are: information seeking and surveillance, entertainment, interactivity and social interaction, and escape and relaxation (Courtois et al. 2009; Diddi and LaRose 2006; Ferguson and Perse 2000; Flanagin and Metzger 2001; Hardin et al. 2012; Haridakis and Hanson 2009; Kim and Haridakis 2009; Leung 2009; Muhtaseb and Frey 2008; Papacharissi and Rubin 2000; Parker and Plank 2000; Shao 2009; Valenzuela, Arriagada, and Scherman 2012; Wei and Lo 2006).

Recently, online media became the primary "content delivery vehicles in the history of the world" (Herring 2010, 233). Web 2.0 added interactivity to its features, altering the ways individuals live in an interconnected digital culture (Deuze 2006) and allowing users to go beyond their role as information consumers and start acting as gatekeepers and content creators (Sundar et al. 2012). Whereas in the past the media solely controlled information through gatekeeping, the internet has allowed anybody to produce and share content through user-generated media (Sundar and Limperos 2013). User participation is primarily evident in user-generated content (UGC), such as posting on a blog, commenting on others' content, or uploading images, audio, and video files (Courtois et al. 2009; Sundar and Limperos 2013). As they customize and create content, individuals act as communication

sources, mirroring the functions of traditional journalists (Sundar et al. 2012). This quality of interactivity thus becomes "a tool for self-expression" (Sundar et al. 2012, 395).

This has led communication scholars to revive the U&G framework as they sought to understand individuals' media habits in the age of new media. Due to U&G's ability to identify the various uses individuals get from using different media simultaneously, scholars have called for the exploration of U&G's applicability in computer-mediated communication (Morris and Ogan 1996; Rafaeli 1984; Ruggiero 2000). These studies have investigated uses and motivations of various types of digital media, including blogs and online message boards (e.g. Chung and Kim 2008; Hardin et al. 2012; Vraga et al. 2011), social networking sites and social media (e.g. Curras-Perez, Ruiz-Mafe, and Sanz-Blas 2014; Debatin et al. 2009; Hanson et al. 2010; Haridakis and Hanson 2009; Liu, Cheung, and Lee 2010; Orchard et al. 2014; Park and Lee 2014; Quan-Haase and Young 2010; Shao 2009; Valenzuela, Arriagada, and Scherman 2012; Whiting and Williams 2013), mobile phones and tablets (Kim, Sundar, and Park 2011; Leung and Wei 2000; Wei and Lo 2006), video- and photo-sharing applications (e.g. Bondad-Brown, Rice, and Pearce 2012; Hunt, Lin, and Atkin 2014), subscription-based online media (Hardin et al. 2012), and VoIP (Voice over Internet Protocol) (Park 2010).

Research on the internet using traditional U&G typologies has found considerable overlap in gratifications between traditional and new media, with the basic gratifications remaining unchanged since the rise of the internet and other digital media technologies (Flanagin and Metzger 2001; Sundar and Limperos 2013). This has prompted scholars to believe that technologies seem to adapt themselves to meet individuals' needs and not vice versa (Flanagin and Metzger 2001).

Nevertheless, studies have found uses and motivations that are unique to new media, which encompass user-generated social media, mobile phones, and subscription websites. These include convenience from general internet use (Papacharissi and Rubin 2000); self-expression on user-generated sites in general (Shao 2009); the mobility of cell phones (Kim, Sundar, and Park 2011; Leung and Wei 2000); passing time on the internet (Ferguson and Perse 2000; Papacharissi and Rubin 2000) and social media (Quan-Haase and Young 2010; Whiting and Williams 2013); sharing problems on Facebook (Quan-Haase and Young 2010); recognition of needs to establish identity on user-generated media (Leung 2009); diversion, perceived value, and argumentation on athletic subscription websites (Hardin et al. 2012); and expressing opinions on social media (Whiting and Williams 2013). New media, such as the internet and cell phones, have also been found useful during disasters, particularly as they provide people with virtual spaces that help them connect with their communities (Shklovski et al. 2010). Other such new media uses included using the social networking site Twitter to obtain information, entertainment, and socialization during a tornado, as well as relying on interactive Web-based technologies to send and receive disaster warnings, signal and detect disasters, raise awareness, as well as provide information about relief efforts, and assistance requests, among others (Houston et al. 2015; Perez-Lugo 2004).

Media Use During War: The Need for Information, Surveillance, and Uncertainty

According to the U&G framework, individuals consume media based on specific needs and gratifications they seek to fulfill. These needs are contingent on internal and external factors, such as the events surrounding them. One such context is wartime. In

their study of patterns of media consumption during the October 1973 Israeli–Arab war, Dotan and Cohen (1976) found that survey respondents consumed media significantly more during war than peacetime. In addition, various media-related needs were pronounced in wartime compared to peacetime due to higher uncertainty and increasing media coverage (Dotan and Cohen 1976). These needs were clustered around four main categories: cognitive (to know what is happening and to understand the possible outcomes of events), affective (to be entertained and to maintain a high morale); social-integrative (to trust the nation's leaders and be proud in the country); and escapist (to "kill time" and escape loneliness).

While we have plenty of information about the uses and motivations of individuals who seek media to fulfill their needs on a daily basis, no study has attempted to explore these areas among war refugees. Apart from Dotan and Cohen's (1976) survey of housewives' uses and gratifications during war, we have little information of needs and motives of people living in conflict zones. Therefore, the first research question aims to find out the main uses and gratifications of Syrians affected by war.

RQ1: What are the uses and motivations of individuals for using media during war?

The Syrian conflict and the uncertainty it creates are expected to affect the refugees' media consumption. By the end of 2014, Syria had become the world's largest source country for refugees. Of these, Lebanon has hosted over 1 million refugees, Jordan close to three-quarters of a million, and Turkey almost 3 million, not to mention the millions internally displaced (UNHCR 2016). With no foreseeable end to the conflict, uncertainty about the future is high among Syrian nationals, whether they are refugees in other countries, internally displaced, or living in their homes in Syria (UNHCR 2011). In 2015, a UNHCR-commissioned report on the mental health of Syrian refugees found uncertainty about the future to negatively affect Syrian's mental health and psychosocial wellbeing (Hassan, Kirmayer, and Ventevogel 2015), causing an increase in the number of Syrians seeking refuge (UNHCR 2015a).

Uncertainty would most likely trigger the need for information, which would expectedly be stronger during conflict times, based on humans' need for surveillance (Lasswell 1960). Shoemaker (1996) first proposed this idea when she theorized that people's knack for news consumption, especially negative news, is due to biological and cultural evolution. Shoemaker argued that news content "is determined by the same innate human drive to know whether threats exist in the environment" (33). With the high probability of threats existing in wartime, people's need for surveillance and information gathering should also be high. Thus, we pose the following hypothesis:

H1: Individuals' need for information will be among the most frequent uses of both traditional and new media.

Based on extant literature on surveillance as a need people fulfill through the consumption of traditional media, such as newspapers and television (TV), and new media, such as the internet in general and user-generated media (Diddi and LaRose 2006; Flanagin and Metzger 2001; Hanson et al. 2010; Haridakis and Hanson 2009; LaRose and Eastin 2004; Lee 2013; Papacharissi and Rubin 2000; Parker and Plank 2000) in particular, we pose the following hypothesis:

H2: Surveillance needs will be positively related to the consumption of both traditional and new media.

New Media Use During War: Mobility, Convenience, and Control

Dotan and Cohen's (1976) survey also revealed that the mass media were perceived as more helpful in fulfilling these needs during wartime compared to peacetime, except for the need to escape reality. The majority of the needs were more pronounced for TV than for newspapers due to the "speedier and more up-to-date coverage of the fast-moving events" (400).

The electronic media of the time, TV and radio, were different from print news because of their speed and updated coverage. This is not necessarily the case today because of the competition broadcast media receive from online media. The advent of the internet has changed the information landscape as it acted as "a multifaceted mass medium" whose various forms connect interpersonal communication with mass communication (Morris and Ogan 1996, 42). As has been the case in the past when emerging technologies provided people with new alternatives to traditional media, the internet has been examined as a functional alternative to traditional media (Althaus and Tewksbury 2000; Ferguson and Perse 2000; Muhtaseb and Frey 2008).

Besides the allure of the internet as a functional alternative to traditional media (Althaus and Tewksbury 2000), new media technologies, such as smartphones, facilitate multitasking, thus providing users "with unprecedented convenience and control over when, where, and how they consume media" (Wang and Tchernev 2012, 494). These functional structures have made new media especially intriguing for researchers seeking to understand how they influence people's media choice behavior.

Based on Dotan and Cohen's (1976) findings about electronic media's ability to provide speedy and updated events coverage, we expect the same to happen with the new media of our time, which include the internet, social media, and mobile media. Although broadcast media have not only kept but also increased their breaking news coverage and capitalized on this niche in the age of 24-hour news channels, wireless media technologies have surpassed the utility of TV and radio, adding mobility to most of their platforms. The high mobility that users have identified with cell phones (Wei and Lo 2006) and tablets (Kim, Sundar, and Park 2011) provide these media with the added value that may give them an edge over traditional media.

Additionally, the internet and mobile phones can be considered ahead of broadcast media in the speed of information delivery due to news alerts that reach smartphones as breaking news. The fact that the majority of these alerts are produced by traditional media whose presence on mobile and social media has become a must in the age of media convergence gives new media an additional advantage (Itule and Anderson 2008; Rich 2010).

Besides the previous motives for using new media, individuals could also use them to entertain themselves and ease tension. Roe and Minnebo's (2007, 305) study on TV-viewing behavior within the U&G paradigm found that the tensions adolescents experience within the social environments of home and school are related to their use of TV for mood management. As a one-way medium, TV may provide entertainment and escape for the viewers, but lacks online media's interactivity. With their high interactive nature, mobility features, and social communication context that facilitate self-expression and feedback, new media—especially social media—can offer those looking to release tension with convenient, controllable, and easily accessible social platforms (Wang and Tchernev 2012). Therefore, the following hypothesis emerges:

H3: Individuals will use new media more than traditional media during war.

Forty years of U&G research into traditional media have given us a clear picture of the main motives of audiences, but the picture is vague for those affected by war. The same applies to differences between traditional media and new media during war. Whereas uses and gratifications for traditional media have been fairly consistent, digital media uses have shown contradictory results. For instance, some studies revealed people use Facebook for information and entrainment (Hanson et al. 2010), but others did not find information-seeking as a motivation to use Facebook (Hunt, Lin, and Atkin 2014). To assess the relationship between motivations and traditional media use during war, and between motivations and new media use, we ask the following research questions:

RQ2: Which motives are associated with greater traditional media use during war?

RQ3: Which motives are associated with greater new media use during war?

New Media Use During War: Surveillance and Education

Early research on the internet as a new medium has assessed its structural features and identified its ability to supplement traditional media in meeting the public's need for information (Althaus and Tewksbury 2000). This utility varies depending on individuals' political knowledge, and computer access and skills (Althaus and Tewksbury 2000). Although adolescents use the internet for entertainment perhaps due to its attractiveness, pleasant content and user experience, information-seeking is also among their main uses (Courtois et al. 2009). As an information-rich surveillance medium that provides information, the internet could still pose challenges for those experiencing discomfort in using computers, especially considering it attracts those with higher levels of knowledge to fulfill their need for information (Althaus and Tewksbury 2000). As such, computer anxiety, which prevents people from using computers (Heinssen, Glass, and Knight 1987), could decrease the time individuals spend using new media for any purpose (Althaus and Tewksbury 2000). Research has also shown education to predict the information-seeking motivation of news consumption (Lee 2013). In the same way individuals' discomfort in using computers may influence their willingness to use the internet for surveillance, we can expect education level to be negatively correlated with comfort using computers and would thus persuade people to avoid new media.

New media usage, especially the internet, is related to several factors, such as education and literacy (Pew Research Center 2010). A 2010 Pew Research Center survey on new media trends revealed a significant difference in internet usage depending on education. In Jordan, for example, 88 percent of those who have attended college use the internet, while only 20 percent of those who have not attended do so (Pew Research Center 2010). In 2014, survey respondents in 32 emerging and developing nations reported a positive influence of the increasing use of the internet on education, personal relationships, and the economy (Pew Research Center 2015). Data from this study indicate that slightly above half the population in Lebanon and Jordan use the internet, and more than 75 percent of those online use social networking sites (Pew Research Center 2015). In Lebanon, slightly more than half the population that own cell phones use a smartphone, compared to 41 percent among the 97 percent of cell phone owners in Jordan.

Given the link between education, internet access, and media use for information, we pose the following hypothesis:

H4: Education is a significant predictor of new media use.

Social Media and the Arab Uprisings

But how do user-generated media, such as social media, fare during war? Considering the seriousness of the situation, would refugees be more concerned with monitoring traditional media who are still expected to provide information and provoke debate in the public realm (Jha 2007), or would they be more concerned with creating their own content?

Scholars assign to social media an active role in fostering cyberactivism through "the mobilization of collective action and the subsequent creation, organization, and implementation of social movements around the world" (Eltantaway and Wiest 2011, 1207). Indeed, non-traditional opposition groups across the Arab region have used new technologies, among which are social media, to organize outside the previously known areas of mosques and factories (Fakhro and Hokayem 2011). The importance of studying new media becomes clear when we consider how social networking sites play a significant role in political change in developing democracies, such as Chile (Valenzuela, Arriagada, and Scherman 2012) and the Arab region (Eltantaway and Wiest 2011). For researchers to properly assess the role of social media in collective action, however, Wolfsfeld, Segev, and Sheafer (2013) suggest they first take into account the political environment of these events, which is likely to precede social media action rather than follow it. In Egypt, for instance, activists trying to start a revolution through social media were not successful for years (Aday et al. 2013). Robertson (2013) also called for a contextualization of the role of social media in TV news and the need to map connectivity between eyewitness accounts and traditional media's use of them in the bigger picture that forms broadcast news. Tufekci and Wilson (2012, 365), in turn, suggested that scholars analyze "connectivity infrastructure … as a complex ecology rather than in terms of any specific platform or device".

Early reports about the role of social media in protests, especially the Arab uprisings, have undermined the revolutionary role that some have attributed solely to social media, evident in such terms as "Facebook revolution". However prominent their role was, social media were not the sole driving force behind the protests in the Arab region (Aday et al. 2013; Anderson 2011; Wolfsfeld, Segev, and Sheafer 2013). Whereas anecdotal evidence has been quick to assert that social media were the main cause of these revolutions, scholars found new media to play a significant role, but not the only one. These scholars have warned against detaching collective action from its political and social history, but have nonetheless recognized the role of new media in the Arab uprisings. Whereas some called social media a "central" player in Egypt's protests (Tufekci and Wilson 2012, 374), others preferred to call the role "important but complex" (Wilson and Dunn 2011, 1248).

Eltantaway and Wiest (2011), for instance, argued that in the case of Egypt, social media facilitated the dissemination of information, making it much faster to receive and send messages among activists, protesters, and the world. In other words, the means activists used, and not the approach, were what allowed social media to play a role in the changes the country has witnessed (Eltantaway and Wiest 2011). Anderson (2011) argues that technology and civic engagement resonated with the Arab protestors in their

diverse local contexts, presenting a more organized and disciplined social movement in Egypt, whose activists were ready to engage in serious debates about their future government. Egypt's political bloggers had been connecting with each other on Facebook since the platform's Arabic-language diffusion in 2009, and had been part of a larger sphere of offline political activity through blogging, conferences, and training (Tufekci and Wilson 2012).

A survey of Tahrir Square protestors revealed how social media were a distinctive feature among protester's media use in general, and how a small group of Egypt's opinion leaders used Twitter to engage the world with the protests (Wilson and Dunn 2011). Twitter indeed provided information for people outside the region during Egypt's uprising, but its use for protestors on the ground was marginal (Aday et al. 2013). Social media may have resonated with those already involved with it, as the initial weeks of the uprisings showed that global TV news paid little attention to social media and made little use of UGC (Robertson 2013).

As detailed in the previous sections, user participation is among the key aspects of interactive digital media (Courtois et al. 2009). With the ability to create, customize, and distribute content, individuals engage in the dissemination of information, which is a form of self-expression (Sundar et al. 2012). Participating in discussion forums, posting, and commenting are some of the various manifestations of agency (Sundar and Limperos 2013), shown to be high among digital media users (Sundar et al. 2012). Blogs, which Herring et al. (2004) defined as "frequently modified web pages", revolve around users' self-expression (Leung 2009; Stavrositu and Sundar 2012). As they combine the theoretical underpinnings of both human–computer interaction (through the production and creation of content) and computer-mediated communication (through the promotion of user interaction), blogs act as agents of psychological self-empowerment (Leung 2009; Stavrositu and Sundar 2012).

The war in Syria has dispersed its population in many different countries, with few physical ties to connect family members. In this situation, people could seek media for social reasons and to keep in touch with family and friends whom they might be separated from because of the necessities of the war. Since people's sense of agency and sense of community can lead to psychological self-empowerment in user-generated social media (Stavrositu and Sundar 2012), engaging in social media could raise the morale of those involved. Additionally, as social media have the ability to provide the information traditional media and Web pages provide, along with the utility of creating content, we expect people to use more user-generated media, posting on Facebook or tweeting about themselves, than one-way traditional media that lack interactivity. Since the younger generation is also more active in content generation (Leung 2009), we pose the following hypothesis:

> **H5:** Individuals are more likely to use social media than general internet sites during war, with significant differences across the age groups.

Methodology

The study uses a cross-sectional survey of 2192 Syrians currently living in Syria, Jordan, Turkey, and Lebanon. Surveys are most compatible with the theoretical frameworks used in this study and are the most effective way to assess the opinions and track the

attitudinal trends among a large population. We chose a researcher-administered question-naire approach because the literacy level among the participants varies and to ensure higher reliability and more complete information. Participants filled the printed version of the questionnaire. Using a hardcopy version of the questionnaire instead of the online version limits sampling bias against participants who are not computer literate.

The survey questionnaire was in Arabic, comprised 35 close-ended questions, required approximately 15 minutes to complete, and generated 185 variables, 88 of which are relevant to this study. In addition to demographic questions, we asked general media use questions, such as: which media organizations participants trust, often follow, and consider the most important. As for U&G variables, questions assessed five media-related needs: cognitive, integrative, affective, escapist, and survivalist. The first four were taken from Dotan and Cohen (1976), and the fifth (survivalist) was added. These questions used a four-point ordered response scale measured at the interval level.

The sample consisted of Syrians between the ages of 18 and 65, currently living in Syria, as well as in Jordan, Turkey, and Lebanon, the countries that host the highest number of displaced Syrians. Because Syrians inside refugee camps tend to be organized in a relatively discernible distribution, a weighted multistage cluster sampling technique was used for recruitment. Multistage cluster sampling is one of the common methods used in refugee camps, especially when a simple random sample is not possible and a sampling frame is not available. Refugee camps are organized into clusters, with each of these clusters containing several "households" (in most cases a family living in a tent or mobile home). A random sample of "clusters" from each camp was first selected. Then a random sample of "households" from each cluster was selected. Within each household, one person was interviewed following a selection protocol that ensures diversity: the oldest male under 65, then the youngest female above 18, then the youngest male above 18, then the oldest female under 65, and so forth. Only one refugee camp was selected from Jordan. Al-Zaatari camp is by far the largest camp in Jordan, containing around 120,000 refugees. As for Lebanon, seven camps were targeted: Arsal camp (the largest), four camps in Baalbek (the most diverse), Sabra and Shatila camp, and one camp near Tripoli.

In addition to Syrians inside refugee camps, displaced Syrians living outside camps were targeted. These so-called "socially invisible communities" tend to be not registered and widely dispersed in homes of relatives and friends and in hotels and privately rented apartments across each country. The best method of recruitment for such a population where no adequate sampling frame or contact lists exist is a snowball sampling technique with multiple entry points. To reduce selection bias, researchers used multiple and diverse entry points, using a small number of links from each entry point. Researchers used as entry points their significant list of Syrian contacts, including Syrian researchers, students, and colleagues who were part of the Media and Digital Literacy Academy of Beirut network, as well as Syrian non-governmental organizations. Additionally, aid organizations (International Red Cross, UNHCR) were asked to provide information about potential participants who approach them for registration. Within each family or household, the same selection protocol used inside refugee camps was implemented.

An overall sample size of 2192 participants was calculated based on a population of 22.5 million, a 95 percent confidence interval and a ±2.5 percent sampling error. The sample was divided proportionally across Jordan, Lebanon, Turkey, and Syria. Within each country, the number of refugees in each camp and major city were estimated

based on UNHCR numbers (when the study was conducted in January and February 2014), and a proportion of the sample for each city/camp was calculated. After discarding unreliable questionnaires, a total of 1820 questionnaires were analyzed. The authors used SPSS 23 to conduct frequency distribution and non-parametric statistics, in addition to correlations and principal component analyses (PCA).

Of the 1820 participants, 54 percent were male and 46 percent were female. Most respondents were in the 25–34 age category (35 percent), followed by the 18–24 category (27 percent). The largest category of interviewees was living inside Syria (40 percent), followed by Lebanon (28 percent), Jordan (24 percent), and Turkey (8 percent). The sample consisted of 80 percent living outside refugee camps, with the remaining 20 percent inside. Of those displaced outside Syria, 30 percent live in refugee camps in Lebanon, Jordan, and Turkey, while 9 percent are internally displaced. Approximately three-quarters of the sample had at least completed high school, while less than a quarter (22 percent) had a university bachelor's degree, and only 3 percent had a graduate degree. Among the respondents, half reported making between $75 and $350 per month, while 18 percent reported a monthly income of less than $70.

Conducting research during war conditions provides a long list of limitations and difficulties. The most important limitations include limited access to dangerous areas (such as those controlled by ISIS) and regions experiencing active conflict. In addition, the lack of a sampling frame made random sampling impossible. These important limitations preclude the ability to generalize to the Syrian population. Nevertheless, this still allows generalization to the common conditions of populations living under war conditions—the main purpose of this study.

Findings

RQ1 explored the uses and motivations of Syrian individuals for using media during war situations. Table 1 reveals the different reasons individuals used the media. "Receiving" and "understanding" information were among the most frequent needs of media use for both traditional and new media, followed by the three categories of "feeling pride in country", "strengthening steadfastness", and "raising moral". "Overcoming loneliness" and "being entertained" fell in the lower frequency range, while "feeling safe", "avoiding danger", and "escaping reality" were among the least frequent needs.

When comparing motivations across media, the internet came in first for almost all categories, with the exception of "avoiding danger" where it ranked second to mobile telephony (Table 1). TV ranked second for "receiving information", "understanding information", "feeling pride in country", and "strengthening steadfastness", and tied with the mobile telephony for "raising morale" and "feeling safe". Mobile ranked second for "overcoming loneliness" and "being entertained", and it tied with radio for "escaping reality".

To extract the main factors of media motivations, we conducted a PCA, which is a data reduction method that is most useful for decreasing the number of questions that measure similar concepts (Jollifee 2002; Lee, Huang, and Hu 2010). PCA is a common statistical analysis tool in studies of U&G (e.g. Bondad-Brown, Rice, and Pearce 2012; Chung and Kim 2008; Diddi and LaRose 2006; Orchard et al. 2014). For each media type, the 10 questions measuring U&G were used. For each analysis, we employed varimax rotation and eliminated factor loadings lower than 0.50 (Kaiser 1974). Assumptions of sphericity using

TABLE 1
Uses and gratifications of all types of media

To what extent each medium helps you …	Media type				
	TV	Radio	Newspapers	Internet	Mobile
Receive information	3.37 (0.65)	2.97 (0.74)	2.88 (0.87)	3.50 (0.69)	3.12 (0.84)
Understand information	3.17 (0.74)	2.68 (0.85)	2.92 (0.94)	3.28 (0.82)	2.79 (0.94)
Feel pride in country	2.77 (0.99)	2.52 (0.99)	2.56 (0.99)	2.80 (0.97)	2.56 (01.0)
Strengthen steadfastness	2.69 (0.89)	2.41 (0.91)	2.47 (0.93)	2.74 (0.93)	2.50 (0.94)
Raise morale	2.60 (0.98)	2.49 (0.94)	2.41 (0.95)	2.78 (0.93)	2.60 (0.98)
Overcome loneliness	2.55 (0.91)	2.47 (0.88)	2.17 (0.87)	2.84 (0.95)	2.74 (0.96)
Be entertained	2.40 (0.99)	2.46 (0.91)	2.25 (0.90)	2.87 (0.99)	2.53 (0.96)
Avoid danger	2.35 (0.93)	2.20 (0.87)	2.03 (0.89)	2.37 (0.94)	2.53 (0.93)
Feel safe	2.29 (0.94)	2.19 (0.85)	2.16 (0.90)	2.30 (0.89)	2.27 (0.90)
Escape reality	1.91 (0.89)	2.00 (0.81)	1.82 (0.77)	2.34 (0.98)	1.98 (0.90)

Four-point Likert-type scale: 1 = does not help at all; 4 = helps very much. Values are means (SD).

Barlett's Test of Sphericity and sampling adequacy using the Kaiser–Meyer–Olkin Measure (KMO) were met. To measure the reliability of the factors in each component, we used Cronbach's alpha. Coefficients above 0.7 were deemed acceptable.

The PCA for TV U&G suggested a three-component solution as the best fit, explaining 66.5 percent of the variance (Table 2). The components were: maintain high morale and survive, escape the reality of war, and stay informed about the war.

Similarly, the PCA for radio use also yielded a three-factor solution, accounting for 73.1 percent of the variance (Table 3), and offered the same components as TV: maintain high morale and survive, escape the reality of war, and stay informed about the war.

Like TV and radio, the PCA for internet use yielded a three-factor solution, explaining 71 percent of the variance (Table 4): maintain high morale and survive, escape the reality of war, and stay informed about the war.

Unlike TV, radio, and the internet, the PCA for newspaper use yielded a two-factor solution, explaining 67.8 percent of the variance (Table 5), and offering the first two components as TV and radio: maintain high morale and stay informed about the war, and escape the reality of war and survive.

Somewhat similar to newspapers, the PCA for mobile use yielded a two-factor solution, which explained 60.9 percent of the variance (Table 6): maintain high morale and stay informed about the war, and escape the reality of war and survive. The one difference between newspapers and mobile news is that participants tended to associate "feeling safe" with entertainment, escaping reality, and surviving for newspapers, while associating it with maintaining high morale and staying informed for mobile media.

TABLE 2
Principal component analysis of uses and gratification of TV news consumption

	Component		
	Maintain high morale and survive	Escape the reality of war	Stay informed about the war
Feel pride in country	0.838		
Raise morale	0.813		
Strengthen steadfastness	0.785		
Feel safe	0.738		
Avoid danger	0.553		
Be entertained		0.777	
Overcome loneliness		0.775	
Escape reality		0.721	
Receive information			0.883
Understand information			0.839
Eigenvalues	2.980	1.988	1.678
Variance explained (%)	29.8	49.7	66.5
Reliability (Cronbach's α)	0.836	0.690	0.752

The blank cells represent factor loadings that are below 0.4, and which were suppressed during the analysis run. KMO = 0.797; Bartlett's $p < 0.001$.

TABLE 3
Principal component analysis of uses and gratification of radio news consumption

	Component		
	Maintain high morale and survive	Escape the reality of war	Stay informed about the war
Feel safe	0.838		
Feel pride in country	0.796		
Strengthen steadfastness	0.763		0.457
Raise morale	0.757		
Avoid danger	0.718		
Be entertained		0.803	
Overcome loneliness		0.795	
Escape reality		0.710	
Receive information			0.830
Understand information			0.815
Eigenvalues	3.318	2.041	1.948
Variance explained (%)	33.2	53.6	73.1
Reliability (Cronbach's α)	0.894	0.735	0.815

KMO = 0.845; Bartlett's $p < 0.001$.

H1, which posited that Syrian individuals' need for information will be among the most frequent uses of all types of media, was supported. Descriptive statistics reveal the need for information to be the most important use for all five types of media (Table 1). Respondents perceived the internet to fulfill this need the most (mean = 3.5, SD = 0.69), followed closely by TV (mean = 3.37, SD = 0.65) and mobile phones (mean = 3.12, SD = 0.84).

TABLE 4

Principal component analysis of uses and gratification of internet news consumption

	Component		
	Maintain high morale and survive	**Escape the reality of war**	**Stay informed about the war**
Feel pride in country	0.817		
Feel safe	0.785		
Raise morale	0.776		
Strengthen steadfastness	0.801		
Avoid danger	0.517		
Overcome loneliness		0.828	
Be entertained		0.804	
Escape reality		0.796	
Receive information			0.864
Understand information			0.823
Eigenvalues	3.006	2.251	1.843
Variance explained (%)	30.1	52.6	71.0
Reliability (Cronbach's α)	0.843	0.794	0.811

KMO = 0.818; Bartlett's $p < 0.001$.

TABLE 5

Principal component analysis of uses and gratification of newspaper news consumption

	Components	
	Maintain high morale and stay informed about the war	**Escape the reality of war and survive**
Strengthen steadfastness	0.859	
Understand information	0.832	
Feel pride in country	0.830	
Raise morale	0.821	
Receive information	0.806	
Overcome loneliness		0.839
Escape reality		0.828
Feel safe		0.676
Be entertained		0.670
Avoid danger		0.620
Eigenvalues	3.75	3.03
Variance explained (%)	37.5	67.8
Reliability (Cronbach's α)	0.907	0.829

KMO = 0.859; Bartlett's $p < 0.001$.

H2, which predicted surveillance needs to be positively correlated with consumption of the various types of media, was also supported. This hypothesis was tested using two pairs of variables, both through one-tailed Pearson's correlation tests.

First, we correlated time spent on various media with participant's indicated need for information in general (not necessarily information specific to Syria). In this case, the strongest correlations were for radio and the internet, respectively. Time spent on getting news from the radio was positively correlated with individuals' need for information from the radio ($r = 0.323$, $p < 0.001$) and for information from the internet ($r = 0.326$, $p < 0.001$).

TABLE 6

Principal component analysis of uses and gratification of mobile news consumption

	Components	
	Maintain high morale and stay informed about the war	**Escape the reality of war and survive**
Strengthen steadfastness	0.892	
Feel pride in country	0.868	
Raise morale	0.812	
Understand information	0.747	
Receive information	0.616	
Feel safe	0.551	0.418
Be entertained		0.771
Overcome loneliness		0.746
Escape reality		0.690
Avoid danger		0.613
Eigenvalues	3.662	2.437
Variance explained (%)	36.6	60.9
Reliability (Cronbach's α)	0.881	0.724

KMO = 0.855; Bartlett's $p < 0.001$.

Newspapers, TV, and mobile media consumption was weakly but still positively related to these media's abilities to fulfill individuals' need for information: newspapers ($r = 0.287$, $p < 0.001$), TV ($r = 0.228$, $p < 0.001$), and mobile ($r = 0.194$, $p < 0.001$).

Second, we correlated participants' indicated importance of various media with their denoted need for information about what is currently going on in Syria (i.e. news about the conflict in Syria). In this case, social media and TV news consumption about Syria were strongly correlated with social media's ($r = 0.497$, $p < 0.001$) and TV's ($r = 0.488$, $p < 0.001$) importance for surveillance, respectively. The same applies to radio ($r = 0.453$, $p < 0.001$), newspapers ($r = 0.405$, $p < 0.001$), and mobile phones ($r = 0.383$, $p < 0.001$). News websites ($r = 0.191$, $p < 0.001$), blogs ($r = 0.147$, $p < 0.001$), and email ($r = 0.10$, $p < 0.001$) showed weaker positive correlations.

H3, which hypothesized that Syrian individuals will use new media more than traditional media, was only partially supported (Table 7). Here too, we tested this hypothesis by assessing participants' indication about their general news consumption and then their news consumption of information related specifically to the ongoing Syrian conflict.

In the first case, individuals spent more time on TV to obtain news (mean = 3.57, SD = 1.83) and for entertainment (mean = 3.31, SD = 1.81) than on the internet for news (mean = 2.85, SD = 2.15) and entertainment (mean = 2.89, SD = 2.18). Mobile phones came third for

TABLE 7

Time spent on news and entertainment across media

On a typical day, how much time do you spend on …	Media type				
	TV	**Internet**	**Mobile**	**Radio**	**Newspapers**
News	3.57 (1.83)	2.85 (2.15)	1.94 (1.56)	1.53 (1.1)	1.27 (0.70)
Entertainment	3.31 (1.81)	2.89 (2.18)	2.18 (1.73)	1.68 (1.27)	1.17 (0.51)

Variables were measured on an ordinal scale. Values are means (SD).

TABLE 8

The importance individuals attach to media types for daily news about Syria

Media type	Mean	SD
TV	3.41	0.82
Social media	2.67	1.2
News websites	2.36	1.1
Mobile phone	2.12	1.1
Radio	2.00	0.99
Newspapers	1.81	0.92
Blogs	1.64	0.87
Email	1.64	0.87

Four-point Likert-type scale: 1 = not at all important, 4 = very important.

news (mean = 1.94, SD = 1.56) and entertainment (mean = 2.18, SD = 1.73), while radio and newspapers trailed for both news and entertainment.

In the second case, for news about Syria specifically, the picture was consistent (Table 8). TV led all media in the importance individuals assigned to it (mean = 3.41, SD = 0.82), followed by social media (mean = 2.67, SD = 1.2), news websites, and mobile phones. Radio and newspapers were the fifth and sixth media individuals used to receive news about Syria.

H4, which posited that education is a significant predictor of new media use, was supported. To test the hypothesis, we conducted an analysis of variance (ANOVA) on four indices of new media use. Each index was created by adding related variables and averaging them. The new media news and entertainment index consisted of four variables (frequency of using the internet and mobile phones for news and entertainment); the daily news about Syria index consisted of five variables (using news websites, blogs, social media, mobile phones, and email to receive daily news about Syria); the posting information index consisted of nine variables (frequency of posting about Syria through Twitter, Facebook, YouTube, blogs, email, WhatsApp, SMS, and mobile phones); and the new media index consisted of all 18 variables. The independent variable, highest level of education, was recoded into three categories: elementary school, high school, and university degree.

The results showed significant differences between the means of the different education groups in their use of the various types of new media. Education was a significant predictor for new media use, $F(2, 1794) = 78.64$, $p < 0.001$, where high levels were related to more frequent use.

For the remaining three variables (indices), our data violated the assumption of homogeneity of variance. Therefore, instead of the regular ANOVA F-test, we used the adjusted Welch's F-ratio (Welch 1951), which is a conservative test that changes the denominator (error term) of the formula. Here also, education level significantly changed the patterns of new media use. University degree holders (mean = 2.3, SD = 0.64) were the heaviest users of new media for daily news about Syria, $F(2, 782.29) = 64.88$, $p < 0.001$. Similarly, for posting information on new media, those who hold a university degree (mean = 1.5, SD = 0.52) were more likely than the other categories to use new media for news about Syria $F(2, 766.76) = 66$, $p < 0.001$, and more likely to use the internet and mobile phones for news and entertainment (mean = 2.9, SD = 1.3), $F(2, 958.73) = 118.17$, $p < 0.001$.

To test for differences between the pairs of categories in education level, we performed *post hoc* tests using Tukey's HSD test for the new media index, and the Games-Howell test for the remaining three because of unequal variances. All 12 tests were significant at $p < 0.001$.

H5, which stated that age is a significant predictor of content generation on new media, was supported. To test the hypothesis, we conducted an ANOVA on two indices of UGC. The general UGC index consisted of eight variables: using social media and using blogs for daily news about Syria, and posting information about Syria through Twitter, Facebook, YouTube, blogs, discussion forums, and WhatsApp. The social media UGC index consisted of four variables: using social media for daily news about Syria, and frequency of posting about Syria through Twitter, Facebook, and YouTube. Each index was created by averaging the relevant variables. The independent variable, age, was recoded into three categories: 18–34, 35–44, and 45–65. Since our data met the ANOVA assumptions except for equal variances, we used the adjusted Welch's F-ratio. Results revealed significant differences between the means of the age groups in generating content.

For the general UGC index, age significantly predicted users' content-generation habits, $F(2, 581.66) = 53.47$, $p < 0.001$. Generating content was positively related to age in that the youngest generation (mean = 1.66, SD = 0.57) was more likely to generate content than the 35–44 category (mean = 1.48, SD = 0.55) and the oldest generation (mean = 1.31, SD = 0.52).

The results were consistent for the social UGC index. Age again was a significant predictor, $F(2, 564.88) = 108.6$, $p < 0.001$, where lower age categories were related to more frequent use. The younger group (18–34) posted on social media (mean = 1.85, SD = 0.67) more than the 35–44 group (mean = 1.58, SD = 0.64) and the 45–65 group (mean = 1.3, SD = 0.46). *Post hoc* Games-Howell tests revealed significant differences between the generations for all categories ($p < 0.002$).

Discussion

This study set out to examine media uses and gratifications during war, using the Syrian conflict as a case study. It aimed to understand what types of media channels fulfilled which needs and gratifications, and what media sources people prioritized during times of war and distress.

Based on the findings, the primary use of traditional and new media during war is for "receiving" and "understanding" information (surveillance needs), followed by "feeling pride in country", "strengthening steadfastness", and "raising morale" (the need to maintain high morale). This pattern is corroborated by the strong association between these two groups of motivations. People's use of TV, radio, and the internet offered three consistent groups of motivations during war: maintaining high morale and surviving, escaping the reality of war, and staying informed about the war. Their use of newspapers and mobile media provided two somewhat consistent groups of motivations: maintaining high morale and staying informed about the war, and escaping the reality of war and surviving. This emphasizes the internal consistency of these clusters of motivations, especially: surveillance needs and the need to maintain high morale, but also for the less important need for distraction and escaping the dire reality of war.

These findings are in line with previous research that has revealed the need for receiving and understanding information to be a main motive for media use for both traditional and new media (e.g. Courtois et al. 2009; Diddi and LaRose 2006; Ferguson and Perse 2000; Flanagin and Metzger 2001; Haridakis and Hanson 2009; Leung 2009; Papacharissi and Rubin 2000; Parker and Plank 2000; Shao 2009). However, our study also shows that the need to maintain high morale is also prominent, a matter that may be unique to war and crisis situations. Other media motivations, such as entertainment and feeling safe, were less important, possibly because the former is less of a priority during wars, while the latter is exacerbated rather than allayed by the violent, graphic, and sensationalist media coverage.

When comparing motivations across media, the internet almost consistently ranked first across the specific media motivations, with the exception of "avoiding danger" where it ranked second and was surpassed by mobile telephony. TV and mobile media tied for second place across most other categories. Almost consistently, when disregarding media motivations, the results revealed that people spent the most time using TV, the internet, and mobile media (in that order), and assigned the highest importance to them, respectively. In other words, TV remained the dominant source for information and entertainment, in general, while the internet and mobile media tended to be more dominant for specific media motivations. This apparent contradiction is partly explained by the variation in importance people assigned to different internet platforms. Whereas social media and news websites were ranked as highly importantly for daily news about Syria, blogs and emails were relegated to less importance. Moreover, illiteracy and obstacles to access of new media and mobile telephony continue to play an important role in reducing their importance. As the findings show, younger and more educated people tended to use new media (for consumption and production) more than older and less-educated people, which is consistent with earlier studies (Lee 2013; Leung 2009).

This interpretation partially corroborates Dotan and Cohen (1976, 400), who found clear differences between the traditional (print) and new (electronic) media of their time and concluded that "the electronic media provide speedier and more up-to-date coverage of the fast-moving events and also require less effort on the part of the audiences". While this statement rings true 40 years later, it is important to emphasize that the internet's (and mobile's) high rank across media motivations were mainly due to the "speedier and more up-to-date coverage" and at most partially due to the "less effort" required for their use. In wartime Syria, TV is the second easiest medium to use (after radio), given the plethora of free satellite TV channels and the ubiquity of satellite dishes and TV screens even in the most deprived refugee camps. Furthermore, radio—the most easily accessible medium under most circumstances—fell well behind on all motivations, except "escaping reality", perhaps because radio's lack of visual component removes the graphicness and violence of war from its content. In addition, newspapers, which are difficult to access during war conditions (due to delivery obstacles) and offer largely outdated static information compared to other media, fell last.

On the other hand, internet connection and mobile coverage remain weak, unreliable, intermittent, and expensive, not to mention difficult to use for a population with high and growing illiteracy rates. This suggests that the fast, up-to-date, rich, portable, malleable, multipurpose, and interactive characteristics of internet and mobile content are the main motivating factors behind their use, despite the obstacles to access and relative difficulty of use compared to other media. This may also be attributed to modality-based

gratifications—the ability of the new media to present information in the form of text, audio, video, and interactive platforms (Sundar and Limperos 2013). In addition, internet and mobile platforms provide a sense of control over which content to consume, the agency to produce content, and the ability to interact with remote individuals and the outside world. This sense of empowerment in the dire circumstances of war may help elevate people's morale and give them hope.

Nevertheless, Dotan and Cohen's (1976) argument about ease of use is somewhat validated when taking into consideration the positive correlation between age and level of education and the use of new media. This also suggests that an increase in digital literacy among the young war populations and the diffusion of access to new media may tip the scale in favor of internet and mobile media use, compared to TV, especially as the former two encompass the content of the latter. One factor that may reverse this trend is the increasing illiteracy rates that plague war-torn countries.

These findings create a tension between the arguments of whether content or ease of access is the more important factor for motivating people's media uses during the circumstances of war and conflict. Our findings point to the former, while not detracting from the importance of the latter. The findings also highlight the indispensable role new media and TV play in the wartime public's daily lives. The rich and immediate information and relative ease of access to new media and TV, coupled with mobility and interactive features that certain platforms boast, could well stress the information-providing and moral support roles of these media.

The implications of this study extend beyond the particulars of daily media use by Syrian nationals. Besides providing us with knowledge about the patterns of news consumption war refugees engage in during times of uncertainty, the findings also demonstrate that U&G can inform not just media use and gratification among general populations in everyday situations, but also displaced persons who during conflict nevertheless turned to media to gratify their need to survey their environment for potential danger, uplift their spirits and morale, and to a lesser extent distract themselves from the desolate and dreadful circumstances in which they live.

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