

NEW FRONTIERS IN NEWSGATHERING:

A Case Study of Foreign Correspondents Using Chat Apps to Cover Political Unrest

**VALERIE BELAIR-GAGNON
COLIN AGUR
NICHOLAS FRISCH**

Acknowledgments

We thank all those journalists who agreed to speak to us during the course of this research. We also thank the team at the Tow Center for Digital Journalism (Claire Wardle, Elizabeth Hansen, Emily Bell, and Pete Brown) for the help with selecting case studies, and thinking through our research framework and findings. We're grateful to the Tow Center and Brown Institute for providing us with facilities, opportunities to present our work, and participation in a community of talented and engaging thinkers on digital journalism.

Thanks to other Tow fellows, including Matthew Weber, Caitlin Petre, Jennifer Stromer-Galley, and Jonathan Stray for their useful comments on our research. Our gratitude to the Yale Information Society Project fellows, staff, and director, Jack Balkin, for providing us with space and support to develop our work. Thanks to Jesse Woo, who contributed to the literature review, and to Ryan Calo for suggesting that we work with Jesse. And thanks to the International Association for Media and Communication Research (IAMCR), the Tow Center for Digital Journalism, the University of Minnesota School of Journalism and Mass Communication, the Minnesota Journalism Center (particularly Nora Paul and Sue Couling), and Public Radio International (particularly Michael Skoler, Angilee Shah, and Lynn Walker) for helping with the dissemination of the report's findings in academic and journalistic communities.

Contents

Executive Summary	9
Chat Apps and Newsgathering	13
Chat Apps in Asia During Political Unrest	19
Research Questions	19
Methodology	21
Sampling	23
Coding	24
Literature Review	25
Industry Sites and Chat Apps	27
Journalism and Chat Apps in Academic Literature	28
How Protesters and Official Sources Used Chat Apps	31
How Reporters Used Chat Apps	35
Multimedia-Rich, Some-to-Some Conversations	38
Chat Apps as Cost-Effective and Efficient Reporting Tools	39
Facilitating Sourcing from Real-Life Encounters	41
Private Networking	43
What Is Private Networking?	45
Similarities with Newsgathering on Other Social Networks	50
How Reporters Used Chat Apps as Tools of Organization	55

Chat App Groups Within and Across Newsrooms	57
The Curious Case of Slack	59
Conclusions and Future Research	61
Findings	63
Journalism and Changing Technology	64
Future Research	66
Authors' Biographies	67
Citations	71

Executive Summary

Coverage of any breaking news event today often includes footage captured by eyewitnesses and uploaded to the social web. This has changed how journalists and news organizations not only report and produce news, but also how they engage with sources and audiences. In addition to social media platforms such as Twitter and Facebook, chat apps such as WhatsApp and WeChat are a rapidly growing source of information about newsworthy events and an essential link between participants and reporters covering those events.

To look at how journalists at major news organizations use chat apps for newsgathering during political unrest, we focus on a case study of foreign correspondents based in Hong Kong and China during and since the 2014 Umbrella Movement Hong Kong protests. Political unrest in Hong Kong and China often centers around civic rights and government corruption. The Umbrella Movement involved large-scale, sit-in street protests, rejecting proposed changes to Hong Kong's electoral laws and demanding voting rights for all Hong Kong citizens.

Through a combination of observation and interviews with foreign correspondents, this report explores technology's implications for reporting political unrest: how and why the protesters and official sources used chat apps, and the ways foreign reporters used chat apps (which are typically closed platforms) for newsgathering, internal coordination, and information sharing.

The key findings of our study include:

- Discussions on chat apps allowed reporters to acquire multimedia information (e.g., pictures, graphics, video, or text), pursue sources from real-life encounters (e.g., with QR code function)ⁱ and access private networks, particularly in contexts of censorship and surveillance.
- Protesters and, to a lesser extent, official sources used dedicated media chat groups to communicate political statements.

i. A QR code (abbreviated from Quick Response Code) is a type of barcode. On chat apps, users can use their camera, scan the code, and link it to a URL (e.g. user page on a chat app).

12 New Frontiers in Newsgathering

- “Digital fixers”ⁱⁱ allowed reporters with little knowledge of the culture and language to navigate the muddy informational terrains of these mobile applications.
- Journalists used WhatsApp as a way to organize news production across news organizations, and within them.
- Journalists faced similar challenges as they do in social newsgathering on open platforms—for example, in verifying content and identifying echo chambers.
- Over the course of the protests, journalists saw a movement of users away from public networks to private chat apps. This was mainly because young, mobile people prefer these applications for ease of use, or because of issues such as privacy and surveillance.
- Reporters suggested that the fundamental process of reporting remains largely unchanged from one-to-one newsgathering on the phone or by email (e.g., get background, get contacts). Rather, it is the technology that has changed.

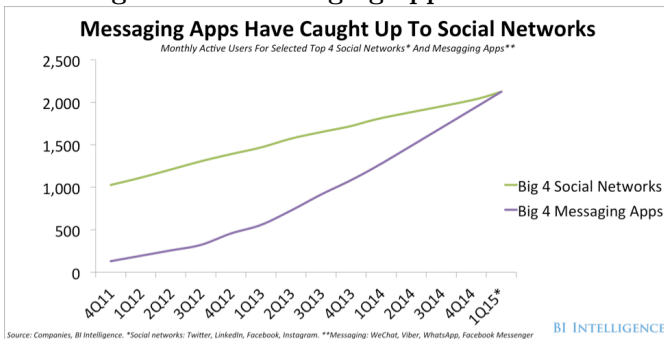
ii. A digital fixer is somebody who performs ad-hoc assistance for reporters on platforms and managing data (e.g., from translation to local connections and knowledge).

Chat Apps and Newsgathering

Chat apps occupy a role between public broadcast and private communication, and offer a range of functionalities. Some allow small numbers of people to participate and see the same content (e.g., Facebook Messenger or Telegram). Others allow for a wider range of participants and are thus useful for news organizations at different levels of scale (e.g., WeChat and WhatsApp). Like social networking sites, chat apps present advantages and challenges for journalists covering fast-moving events. Because their functionalities vary and are constantly evolving, chat apps demand technical savvy and social nuance from journalists.

In terms of popularity, mobile chat applications have now caught up with social networking sites—and in some cases surpassed them by considerable margins. From 2011, when the earliest mobile phone chat applications were launched on the global market (Kik, KakaoTalk, and WhatsApp), to 2015, these mobile applications reached the same number of monthly users as did the four leading social networking sites (see Chart 1). Today, the most popular chat app, WhatsApp, has more than one billion monthly active users (MAU).

Chart 1: The growth of messaging apps versus social networks



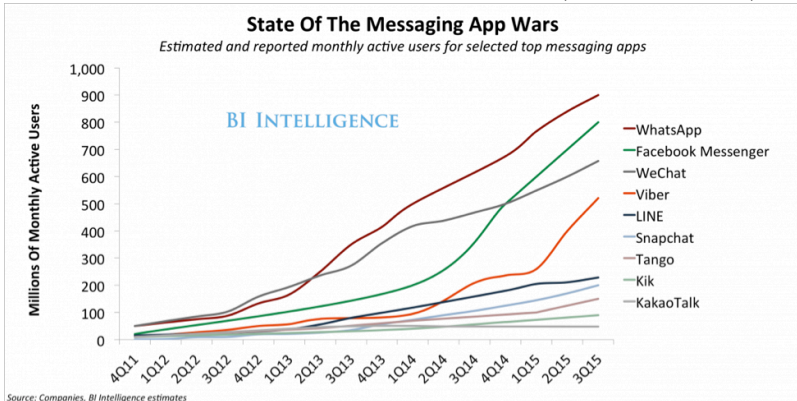
Source: Business Insider.¹

Mobile chat apps allow users to exchange information with other users in real time, using text messaging, voice messaging, and file sharing. The most popular of these apps are (in order of monthly active users): WhatsApp, WeChat, LINE, Facebook Messenger, Viber, and Snapchat (see Chart 2 for a glance at the state of messaging apps as of 2015). Some of these

16 New Frontiers in Newsgathering

apps have large active user bases, such as the four hundred million users on WeChat and one billion on WhatsApp (as of 2016), while others have smaller active user bases (e.g., KakaoTalk, Kik, and Tango).

Chart 2: Top mobile messaging apps (as of Q3 2015)



Source: Business Insider.²





















Mobile instant messaging apps are distinct from other social networking sites because of the size of their user bases, usage rates, demographics (notably young users, who are important for publishers or brands), higher user retention, and ability to connect with other users privately. The combined user base of the top four chat apps is higher than that of the top four social networking sites together. Popular in Asia, WeChat, KakaoTalk, and LINE have built strategies to keep their users engaged and monetize their services. The table highlights different functionalities these mobile applications offer.

With varied functionalities, chat apps can assist news organizations with newsgathering and sourcing in domestic and international stories.³

Chat logs can provide information of potential value to companies and governments, even though the one-on-one or many-to-many conversation is supposed to be private and inaccessible. In 2013, scholars from the Citizen Lab at the Munk School of Global Affairs at the University of Toronto reverse-engineered and analyzed censorship and surveillance mechanisms of the chat app LINE. These scholars uncovered that when the user set their country to China during installation of the application on a mobile

Mobile Messaging Applications Functionalities

Last updated: 14 September 2016

App	Founded	OS	Monthly active users	End-to-end encryption	Voice calls	Voice group calls	Video calls	Video group calls	Location settings	Stickers	Private messaging	Language	Other
 Cryptor	2011 (Peach Labs and contributors)		N/A	●					N/A	●	●	English, Catalan, French	Open-source desktop app with end-to-end encryption
 Facebook Messenger	2011 (Facebook)		1 billion+		●	●	●		●	●	●	Multilingual	
 Google Hangouts	2013 (Google)		540 million+ (MAU for Google+)		●	●	●	●		●	●	Multilingual	
 Kik	2010 (Kik Interactive)		300 million+ registered							●	●	Multilingual	Shake for random social discovery, anonymous, built-in browser
 LINE	2011 (Naver Corporation)		220 million	●	●	●	●			●	●	Multilingual	
 iMessage	2013 (Apple)		30 million+ (3 million+ daily)		●	●				●	●	English only	Free, but with tiered pricing
 Snapchat	2011 (Snapchat Inc.)		150 million+ daily						●	●	●	Multilingual	Ephemeral messaging
 Telegram	2013 (Telegram Messenger LLP)		100 million+	●						●	●	English, Spanish, German, Dutch, Italian, Arabic, Portuguese and Korean (official)	Open-source software
 WeChat	2011 (Tencent)		800 million+		●	●	●	●	●	●	●	Multilingual	Can exchange contacts with people nearby via Bluetooth and provide features for contacting people at random
 WhatsApp	2009		1 billion+	●	●				●		●	Multilingual	

New Frontiers in Newsgathering: A Case Study of Foreign Correspondents Using Chat Apps to Cover Political Unrest

Colin Agur, Valerie Belair-Gagnon and Nick Frisch

Published by the Tow Center for Digital Journalism, Columbia University



device, the app enabled a censorship functionality, for example by downloading a list of censored keywords and blocking messages that contain these words.^{4 5}

The importance of chat apps to foreign correspondents covering political unrest is rooted in the status of mobile devices as the primary digital tool in developing-world consumer markets and the growing number of “digital native” youth in developed societies. Because people involved in political unrest communicate via groups on chat apps, journalists have been able to cultivate sources and gather news by gaining access to those conversations—some private and others public.

The widespread usage of social media has introduced substantial changes to how journalists and news organizations produce news, and how they engage with audiences. For example, it is now common for images on Twitter or Facebook to make it into news production.^{6 7} Similarly, mobile chat applications and ensuing discussions on those apps provide opportunities for

18 New Frontiers in Newsgathering

newsgathering. Chat apps can operate on top of existing social networking platforms (as does Facebook Messenger); they can also be standalone applications (like WhatsApp). Unlike many social networking sites, these apps allow for communication in real time through the transmission of text and multimedia from senders to receivers, either publicly or privately.

The arrival of open sites such as Twitter, Sino Weibo, and Instagram gave reporters new ways of finding content and sources; with chat apps, the changes are more of a mixed bag. What we are seeing is not a simple, linear progression toward greater transparency and easier newsgathering. While public sites allow reporters to find content rapidly and often with greater ease than before, closed networks limit access and can make newsgathering more complicated and labor-intensive. In this report, we emphasize the role of these new private and semi-private spaces in news production processes.

In this context of rapidly growing chat app usage, what does the rise of private social networks and chat apps mean for newsgathering? Does it mean the end of social newsgathering?

David Clinch, global news editor at Storyful, said that finding relevant chat app conversations can be a challenge. That's why Storyful's teams have identified people "in particular places, where WhatsApp is very useful as a newsgathering tool, who act as the nodes."⁸ An Xiao Mina, a product director at software nonprofit Meedan, agreed that while contacts are easily searchable on Twitter or Facebook, the story is different on chat apps such as Telegram, Cryptocat, or WeChat. Mina spoke of the emergence of a "digital fixer," somebody who performs ad-hoc assistance for reporters on platforms and managing data—anything from translation to local connections and knowledge. While conducting research for a project in China, Mina was introduced to a WeChat group "where 500 people were trading ideas about products and issues." She said: "This was not discoverable by any other means. I literally needed someone to tell me the group existed, then to invite me into that group, to bring me into the circle of trust . . . Finding information on private social networks means developing sources in a more traditional manner."⁹

Especially in breaking news, mobile chat apps are playing increasingly significant roles in news production and journalist-audience interactions.

Around the world, users are not only logging in to messaging apps to chat among themselves, but also to connect with journalists, news organizations, and brands. This report examines how journalists at major news organizations used chat apps for newsgathering to cover the 2014 Hong Kong protests, and how chat apps have shaped their journalistic practice since.

Chat Apps in Asia During Political Unrest

Hong Kong's high level of technological penetration at all levels of society, status as regional headquarters for many large news organizations, recent political unrest, and location in the center of an emerging-markets region—where many consumers are direct-to-mobile users—all make the city a unique test case in the use of chat apps for crisis journalism. Typically, news organizations favor Hong Kong as a regional base because it is stable and wealthy, and has a high degree of technological sophistication, low corruption, and well-regarded rule of law. It is a window into the region, but rarely a news story itself.

During the 2014 protests, thousands of foreign journalists found a major political crisis and global news story on their own doorsteps, to which they brought their full reporting resources to develop a news story driven mainly by young locals, and organized using mobile technology—especially chat apps. Since journalists in Hong Kong are also responsible for covering the broader Asia region—home to the world's most dynamic developing markets and key consumer mobile tech innovation—this experience gave them a unique perspective on the relative uses and risks associated with varied chat app platforms.

Research Questions

To explore the impact of chat apps on newsgathering during cases of political unrest during and since the 2014 Umbrella Revolution in Hong Kong, this report examines the following research questions:

- How and why did protestors and official sources use chat apps?

20 New Frontiers in Newsgathering



Memes of the 2014 Umbrella Revolution. Source: *South China Morning Post*.¹⁰

- How and why did foreign reporters use chat apps for newsgathering?
- How did foreign reporters use chat apps for internal coordination and information sharing?
- How have journalists embedded these processes into their newsgathering systems since the Hong Kong protests?

The aim of this report is to understand how reporters have integrated chat apps into their coverage of political unrest. This report examines how a sub-section of foreign correspondents used chat apps to cover one particular type of story in one location, and assess the implications for journalistic practice.

Methodology

Sampling

For this report, we conducted thirty-four qualitative, in-depth interviews with foreign correspondents from Europe and the United States who have used chat apps to cover recent political unrest. Our interviews focused on Hong Kong, China, and the surrounding region. Questions included:

- How did you cover the 2014 protests?
- How do you use chat apps during political unrest coverage (during the 2014 Hong Kong protests and since in those areas)?
- Can you provide examples of how you used chats apps in comparison to other social networking sites during and since the 2014 Umbrella Movement protests?
- What are the major challenges you encountered when using chat apps?

Hong Kong is the primary Asian hub for most global news organizations—the center of a region that has seen significant use of chat apps in news-gathering, and a city that has witnessed recent mass political unrest. Hong Kong and its surrounding regions offer rich context to study spaces in chat app reportage by foreign correspondents.

In order to identify respondents for this report, we selected journalists based on a snowball sampling method. To narrow the list of respondents, we first chose reporters who covered the 2014 Hong Kong protests, some of whom were based in China, and others in Hong Kong. We narrowed the list to journalists working for major international news organizations, including reporters employed by broadcasters, print and digital news, and magazines. Then, we interviewed reporters recommended to us by individuals in our first sample of foreign correspondents. In interviews, we discussed coverage of the 2014 Hong Kong protests and subsequent coverage of political unrest in the region.

24 New Frontiers in Newsgathering



The Admiralty protest site. Source: Pasu Au Yeung.¹¹

Coding

We had our interviews transcribed professionally. We then thematically coded the results using a software system called Dedoose. This system allowed us to code interview segments multiple times.

Literature Review

In this section, we survey the literature on social newsgathering, mobile chat applications, and how journalists use chat apps to cover political unrest. By political unrest, we mean the widespread dissatisfaction with a government, manifesting itself in organized protests on varied levels of intensity and scale.

Industry Sites and Chat Apps

Industry sites such as the BBC Academy and Poynter have produced a wealth of how-to guides and practical knowledge on chat apps for newsgathering^{12 13} and distribution.^{14 15} In terms of newsgathering—the primary focus of this report—subjects range from social discovery to distinct issues associated with these apps, including the anonymity feature with Yik Yak.^{16 17} First Draft News has been one of the online pioneers in news discovery and verification practices. While praising the possibilities associated with chat apps to make contacts and share information with audiences, Alastair Reid reported that chat apps such as WhatsApp can have limitations for finding sources or stories. “WhatsApp isn’t really a platform,” Storyful’s David Clinch told First Draft News. He continued:

It just isn’t. It’s a private messaging app. There’s no platform that you can search, there’s no API, there’s no geolocation you can search [to find nearby users], you just have to be connected to people [through prior acquaintance or with a phone number]. So we’ve cheated by identifying the people, in particular places where WhatsApp is very useful as a newsgathering tool, who act as the nodes.¹⁸

While discussions on chat apps can have features similar to those on other social networking sites, on the Storyful blog Mark Little noted that when using WeChat he “was struck by the addictive clutter of voice and video chats, group conversations, innovative friend-finder features and highly effective QR codes. An online payment system powers a frenetic marketplace, offering everything from limitless emojis to taxi hire.”¹⁹ He added that “public debate takes place within a very narrow spectrum but it is perhaps fiercer and more impactful because of that. In debates around corruption, police misconduct and official neglect, social networks have become a channel for populist outrage and a source of offline action and

28 New Frontiers in Newsgathering

opportunity.” In the past few years, empirical evidence on how reporters and sources have been using chat apps has been abundant. Other industry sites include the Verification Handbook, BBC Academy,^{20 21 22} and Poynter.^{23 24} In addition to these sites, Hong Kong University also published industry-related pieces on verification on chat apps during the 2014 Hong Kong protest.^{25 26}

Journalism and Chat Apps in Academic Literature

Reporting on political unrest has always posed challenges for journalists.²⁷ These include censorship and surveillance, misinformation, and distortions introduced by witnessing events at a distance. Correspondents might not know local languages, or may be sent to a place temporarily as so-called “parachute journalists.”²⁸ Chat apps thus afford new opportunities for reporters to fulfill the core objectives of crisis coverage: “being there” fast and first with eyewitness accounts. In addition to old challenges, reporters covering political unrest must also deal with new complexities arising from online journalism. Gaining access to news sites and sources (especially elite sources), verifying facts, protesters’ access to media, and relaying information to newsrooms all involve practices and pose challenges for general news reporting and critical coverage of political unrest.²⁹

The academic literature on chat apps notes how reporters are using chat apps to solve these long persistent challenges. For example, Lee and Ho write that Chinese authorities have aggressively censored coverage of sensitive events from public-facing platforms such as Weibo (a platform similar to Twitter) and QZone (similar to MySpace), but rarely have done so on more closed, peer-to-peer platforms such as WeChat, which is often monitored by the Chinese authorities.^{30 31} While apps like FireChat can leave protesters open to surveillance, in contrast others can encrypt information, helping reporters contact sources who may not otherwise feel secure (see Barot and Oren 2015 for examples of journalistic use of Telegram in Uzbekistan and Iran).³² Other studies have focused on how journalists use email and SMS to source content, which could be instructive in chat app scenarios. For large and complex stories, chat apps allow a reporting team or individual journalists to share information in real time with each other and with newsrooms. Journalists with cellphones can communicate with their newsrooms while out in the field, or obtain information without being physically present at the scene³³ both on chat apps and social networking platforms. Chat apps provide opportunities for journalists and individuals taking part in political unrest to communicate more directly

30 New Frontiers in Newsgathering

study of YoSoy in Mexico)³⁷ and build social bonds.³⁸ While these studies shed light on several aspects of journalistic chat app usage, they do not address whether chat apps represent a shift in newsgathering behavior in terms of discovering online discussion and eyewitness media.

This report provides a unique perspective on how and why protestors and official sources use chat apps; how news organizations use chat apps to organize themselves; and how foreign news organizations have used chat apps for newsgathering, as well as internal coordination and information sharing.

How Protesters and Official Sources Used Chat Apps

Simon Cottle observed: “Protests and demonstrations today have become reflexively conditioned by their pursuit of media attention, and need to be if they are to get their message across and mobilize wider support . . . Certainly today’s media ecology offers new political opportunities for protest organizations, activists and their supporters to communicate independently of mainstream news media.”³⁹

Our findings point to a similar trend. Beyond the general uptick in the use of chat apps across all demographics, it was younger people—themselves digital natives comfortable with using chat apps as their primary means of communication—who instigated and led the Hong Kong protests. As their actions forced a response from those institutions where an older demographic holds decisive power—the government, the police, and the media—these stakeholders had to adapt quickly to technological platforms and habits which otherwise would have shifted more slowly, on a generational scale. For example, student leaders drafted statements in response to certain events, putting them out on a public Facebook page and private WhatsApp groups for journalists. Emailed statements came later, or never. Meanwhile, some government bodies still using fax machines and dependent on newspapers, radio, and television to release their messages were behind. As the protests developed, and even after they ended, pro-government individuals and others opposed to the protesters’ message began developing media platforms and social media practices, including the use of chat apps, to engage the protesters more directly and swiftly. What is striking about this interplay is the extent to which chat apps became so quickly normalized in political discourse and reporting. While the initial impetus came from a tech-savvy protest leadership, the widespread popularity and functionalities of chat apps sustained the conversation.

How Reporters Used Chat Apps

With the protestors and official sources using groups on chat apps, journalists had to inhabit these same spaces, which became hugely beneficial to their reporting. They joined WhatsApp or WeChat groups populated by fellow journalists, activists, and other sources. Well-organized activist groups often invited journalists to join dedicated media chat groups. These digital spaces function effectively as long-running digital press conferences, a primary space for press interactions with newsmakers. In Hong Kong, student and civil society protest groups used WhatsApp extensively to communicate with journalists covering the protests. Such groups are especially valuable for journalists who are not part of large news organizations (e.g., solo foreign correspondents or stringers).

The value of chat apps for newsgathering extends beyond specific case studies in political unrest; it is part of a larger shift in which journalists are using social networking sites and chat apps as routine, essential parts of their newsgathering processes. But as the previous section (on protestors and official sources' access to reporters on those apps) showed, because young people have been disproportionately involved on these apps, this means usage is more widespread during protest situations. From 2014 on, chat apps have been a more efficient way for reporters to gather news on political unrest, when compared to Facebook or Twitter. In interviews and informal conversations, many reporters mentioned that they used Twitter only to have access to other reporters. Chat apps afford reporters the opportunity for multimedia-rich, some-to-some conversations with sources. Reporters use chat apps because they are cost-effective, efficient, flexible, and allow for multimedia information gathering (voice or text messaging, as well as video or image sharing). And if the participants use them correctly, encrypted chat apps (e.g., Telegram and Signal) allow reporters and sources to communicate about sensitive topics and evade surveillance. With these features, chat apps facilitate journalistic sourcing from real-life encounters, while offering advantages for small and large news organizations covering political unrest in the region under scrutiny. In the following sections, we explore the different reasons why chat apps have become such powerful newsgathering tools.

Multimedia-Rich, Some-to-Some Conversations

Reporters we interviewed highlighted that one of chat apps' key functionalities is the ability to accommodate a range of conversation sizes: one-to-one, some-to-some, and many-to-many. Second, our interviewees suggested that chat apps minimize the use of a data plan, thus providing a low-cost way to report unrest. Third, on social platforms like Twitter, in-person social encounters often led to connections on chat apps, and vice-versa. For example, after making initial contact on an open platform, reporters often followed sources to other chat apps.

Chat apps are flexible in that they can accommodate a role between broadcast and private communication. Some apps are narrow in the sense that they limit how many people can participate and see specific content (these include Facebook Messenger and Telegram), while others such as WeChat are broader. Apps like WhatsApp allow for a wide range in participant numbers, from one-on-one to large groups, and are thus useful for news organizations at different levels of scale. When journalists engage in a combination of one-on-one and group conversations, chat apps became an important source of information about ongoing events.

Many of our interviewees explained that chat apps are particularly useful for background information. While it might not make it into the finished piece, the information gleaned from them was invaluable. Our research suggests that a large part of chat apps' value is in allowing journalists to dip into different streams of information at will, picking out bits of multimedia or zeroing in on useful informants for a private one-to-one conversation. For example, youth groups leading the protests in Hong Kong treated their official media chat groups as rolling digital press conferences. This provided correspondents covering the Hong Kong unrest with a multilingual, text-searchable record of the students' view of events and answers to press questions, with direct access to the individual posting content through chat or a phone call if a reporter wanted to follow up. This ability to swiftly zoom in and out of newsmakers' discourse on an evolving news story, and follow up quickly with confirmation and corroborating multimedia, constitutes an important addition to the reporter's toolbox. In previous genera-

tions, journalists in crisis situations had to rely on media sources that were one-to-many (e.g., state radio) many-to-many (e.g., protesters' leaflets and speeches), or one-to-one (e.g., telephone calls or in-person interviews).

In summary, chat apps' group-chat functions offer journalists a multimedia-rich set of some-to-some conversations with sources, one-to-one chats, or phone calls a few buttons away.

Chat Apps as Cost-Effective and Efficient Reporting Tools

Our interviewees reported that chat apps' versatility in using Wi-Fi is an attractive feature for reporting in the field. In places where SMS texting costs money, chat apps offer a cheaper alternative. In addition, they let users circumvent the limits of their data plans and other constraints. For example, instead of having a constantly streaming voice conversation, WeChat allows users to send short audio messages.

When Wi-Fi is not available, most chat apps rely on cellular data connections; but some offer alternative types of connectivity that can prove useful when cellular networks are overloaded, disabled, or otherwise unavailable. During the Umbrella Movement in Hong Kong, FireChat briefly gained popularity as a mesh-networking tool that could not be disabled by a hostile government action. This is because FireChat works not only on cellular and Wi-Fi connections, but also through a Bluetooth mesh connection. During an early, critical phase in Hong Kong's Umbrella Movement, when Hong Kong's streets were filled with protestors and concerns spread about cellular networks overloading or being shut down, nearly five hundred thousand people downloaded the app. Journalists onsite told us that FireChat's main virtue was that it could be used when there was no possibility of accessing the internet.⁴⁰

However, FireChat's open-access, many-to-many model quickly made the app ineffective as a vector of organizational information, as its digital spaces filled with rumor and unverified information. A European digital editor told us: "FireChat was something that we were monitoring, and everybody downloaded it during the [Umbrella] Revolution. It wasn't really a platform for the sharing of content, though."⁴¹ Like many others, the editor

40 New Frontiers in Newsgathering

was drawn to FireChat because of concerns that cellular networks might fail, but found WhatsApp to be a more reliable source of information: “On the first day there was this concern that [the government] would shut down the cellphone network at Admiralty, where the first protest was. So we looked into FireChat, but we ended up not really using it because WhatsApp worked perfectly fine.” The open chatroom nature of FireChat meant it was neither a site for important discussions about the protest, nor a useful tool for newsgathering or sourcing. While FireChat found enthusiasts as a tech story and reporting tool,^{42 43 44 45 46} the app played only a brief and minor role in the protests from the perspective of the resident foreign correspondents we interviewed.

In the context of political protests, when large numbers of people are gathered together, chat apps offer journalists ways of quickly finding and connecting with sources, and sourcing multimedia content. Some chat apps even offer a location-based tool for finding contacts, which enables journalists to source news from specific locations relatively quickly. Reporters noted that their access to richer contextual information through chat apps was helpful in targeting specific people and places. WeChat has a GPS-based friend-finder for meeting people nearby so journalists on the platform can contact nearby persons at a breaking news event to interview as sources. A social media-savvy reporter highlighted the advantage of speed and multimedia that WeChat offered in protest situations:

It takes two seconds to just go, “Hey can I get your WeChat [contact details],” and you scan the QR code. You have that information, you can communicate with them. You’re not going to get portraits of them, you’re not going to get them on camera talking for video footage but you can definitely get information from them and you can conduct a [livestream] video [footage] from that [chat app].⁴⁷

Similar to Nimbuzz, a cross-platform instant messaging app, WeChat has a multimedia advantage because of its ability to connect to Facebook (except within mainland China). In summary, the low cost of connectivity, access to location data, and multimedia functionalities have all played important roles in journalists’ uses of chat apps to cover political unrest.

Facilitating Sourcing from Real-Life Encounters

A common theme we heard from journalists was the way in-person social encounters led to cultivating sources via follow-up conversations on chat apps. An American wire service reporter told us how chat apps allowed him to continue chance conversations: “I’ll go out to some party or a reception or a press conference. I’ll have a short conversation with someone I’ve just met. I might be in the line for the bathroom and meet someone who works in some beleaguered industry in China that I’ve never turned my attention to before.”⁴⁸ A digital news journalist found that his most reliable sources on chat apps were people he had met in person. “Usually I approach [potential sources] in person. Once I approach them, we try to establish a method of communication, and it was almost always Facebook Messenger or WhatsApp.”⁴⁹ Similarly, some journalists discovered that chat apps offered the type of communicative space that lent itself to follow-up discussions.

After making initial contact on an open platform, reporters often followed a source’s lead on which platforms to use in subsequent conversations. As a print reporter described:

A lot of the information you get at the start of the reporting process is derived from people posting anonymously on these forums. A very common thing is somebody will post something on Baidu. The way we contact them is we send a private message to them and say, “Hey, I’d love to talk to you,” or reply to them in the forum and say, “Can you talk to me?” Then somebody will say, “Here’s my QQ, you know, just message me.” The other option is if we’re reaching out to them we’ll say, “I want to talk to you. Here’s my QQ. Can you contact me?”⁵⁰

Just as reporters use chat apps to follow sources, some media-savvy sources use chat apps to keep in contact with reporters.

Private Networking

What Is Private Networking?

Private networking sites refer to sites that allow individuals or groups to leverage knowledge and experiences of people in a network privately. While social networking sites have allowed individuals or groups to socialize and intersect with people and content online openly, private networking sites have allowed for the privatization of socialization and online content. Some of the chat apps that we studied in this report have public and private features. For example, WeChat is searchable, but many reporters mentioned difficulty accessing certain private groups. In a sense, private networking sites such as WeChat or Telegram could transform newsgathering. This section explores two important dimensions of private networking that came up in our interviews: the possibility for journalists to gain trust and circumvent censorship, and the emergence of the role of the digital fixer.

Journalistic Uses of Chat Apps Under Censorship and Surveillance

In our interviews, we found that, unlike social networking sites, chat apps provide means for reporters to circumvent government censorship and surveillance. When reporting with chat apps under conditions of political unrest, savvy journalists familiarized themselves with apps' privacy and security features, and stayed current with these chat apps' evolving functionalities. Changing features can lead to enhanced or reduced levels of privacy. Journalists said they must accommodate sources' varying familiarity with specific apps.

One journalist warned about the risks of reporting with chat apps: "I think people don't really have a sense of the danger out there, the security issues associated with these apps. Although there have been more people who turned to Telegram, or even some people turning to CryptoCat, or other encrypted methods, most people stick to WhatsApp for everything."⁵¹ We found journalists who tried to take a conversation offline to protect sources and data by meeting in person or switching to an encrypted channel. But these moves (specifically the latter) can make the source nervous and may reduce their willingness to continue the conversation, especially about sensitive subjects (for sources not already aware of the likely level of

46 New Frontiers in Newsgathering

surveillance on less secure channels). Journalists told us that, to some less sophisticated sources, the mere mention of encrypted channels can seem like an escalation and may cause the source to lose trust in the journalist or withhold information they may have been willing to provide. For sources with low technical skills, encrypted channels may involve onerous work. Sources may need to download and install additional software, possibly purchase new hardware, learn an interface, and invest considerable time and effort in the process.

Journalists noted that the choice of channel for communication with sources can be complex and depends on the source. An American print journalist working in mainland China told us:

If [a source] is on WeChat, which he probably will be, he'll say, "Here's my WeChat, let's talk." And so you talk to him a little bit, and then if he's saying stuff that you're pretty sure is problematic, you might bring it up and say, "Hey, do you have other apps? Maybe it would be better to, like, meet in person, you know, talk over the phone or something like that." And you kind of get the sense of how paranoid that person is and how much they want to protect things. And you can push them. I usually give them a couple of different options . . . A lot of times people aren't necessarily sophisticated enough or just don't care, and then there's people who are . . . You're either paranoid or you're not.⁵²

Journalists interviewed noted that some sources involved in political protests are inexperienced and unaware of the extent of surveillance on chat apps.

They likewise reported that, if a conversation is progressing well, sources may be reluctant to shift to an encrypted channel for reasons of user preference, thereby increasing potential exposure to surveillance. Indeed, some sources may want to intentionally keep the conversation open to surveillance, to demonstrate to the authorities that despite their conversations with foreign journalists they are not engaging in substantive activities offensive to the government. By remaining in the open, some sources believe that they are marking themselves as "working within the system," thereby decreasing the likelihood that they will encounter trouble from the government. In response to the dilemmas surveillance poses for users, WhatsApp has implemented end-to-end encryption for its more than one billion accounts, starting in April of 2016. Since August 2016, WhatsApp users now

have to opt out of WhatsApp sharing data with Facebook. However, even heavily encrypted communications may be surveilled if either end-user device is compromised.

We also found that journalists calibrate their choice of chat app according to privacy needs. One investigative reporter used WeChat as a starting point for conversations, but preferred to move the discussion to Tencent QQ, a Chinese messaging app, because it offers fewer ways to track users than WeChat does: “QQ is also a sort of instant messaging service. It’s even more anonymous than WeChat, because with a WeChat account my phone number’s tied to that account. Whereas with QQ you can set it up through an email address, so you can create an anonymous email, and then create your own QQ address. You do it online, on a computer to chat with people, or on your phone.”⁵³ In China, more common than QQ was Telegram, which served as an encrypted channel for protest organizers’ internal deliberations, as well as a secure space for journalists to source stories. In some cases, journalists removed certain unencrypted chat apps from their phones and relied exclusively on secure channels.

Sometimes the surveillance possibilities of chat apps led journalists to turn down potentially useful sources, as a reporter working for a European media outlet told us. For journalists in large news organizations, institutional rules often determined what technology they had access to and were familiar with using. The reporter said: “My company requires that my phone and computer are encrypted . . . I use [encrypted email], but I haven’t had much success in trying to get any of my sources to use encrypted email. I also use RedPhone, encrypted calling, but that’s hard to get Chinese sources to use and it doesn’t work well if the Wi-Fi is not very strong.”⁵⁴

We sometimes hear “chat apps” as a category, but these more specialized tools differ in a number of important respects. For example, they have varying types and levels of security, and these can have significant effects on journalists’ efforts to protect sources and the information they provide. Journalists also need to understand the level of openness in a given chat app, such as whether it is relatively narrow and private, or wide open. And they need to know who owns the data on the platform and what the terms of service say about possible uses of that data. Tech-savviness is uneven

48 New Frontiers in Newsgathering

among journalists, but through word of mouth, trial and error, and, in some cases, training from employers, journalists gained a sense of which apps were secure and how to use these apps.

In addition to needing to master the functionalities, security features, language, and culture of chat apps, reporters told us they must also contend with the hardware challenges of heavy mobile phone use. A common complaint from journalists was the need to have backup battery packs on hand when reporting from protest sites. Since power sources were sometimes difficult to find, reporters learned to bring multiple battery packs and sometimes multiple phones. Another problem was with connectivity, since the size of the protests often meant that cellular data transmission slowed or stopped. As one reporter said: “We had many technology woes because there were so many people that the network wasn’t working. If I knew this, I would have prepared beforehand by setting up a portable Wi-Fi hotspot. I would have been able to connect anywhere instead of having to run away from the crowd to do work.”⁵⁵

As Hong Kong’s 2014 protests grew in size and chat apps became the targets of hacking, surveillance, and misinformation, activists crowdsourced solutions to security problems. One stringer said:

[One student group] was getting hacked all the time. [The group’s leader] would often post a screen grab of a message that says someone has tried to enter your account or something. It tells you when someone’s tried to access your account. Then I would see him ask people in the hacking community, “Can someone help me run through this and see what’s happened?” There’s a good solid community here, like pro-democracy tech activists who will help and jump to anyone’s rescue if they have these sorts of tech problems.⁵⁶

As a result, the private nature of chat apps led to the rise of “digital fixers,” reporters that were able to swiftly navigate the complex information on chat apps and provide guidance and potential access to those who knew less about how to gain access to information on those sites.

The Digital Fixer

“When you are writing in a new context and location, you work with a fixer who understands that context,” said An Xiao Mina at the 2016 In-

ternational Journalism Festival in Perugia.⁵⁷ “They might be a journalist or researcher themselves, and theoretically we can apply this to the digital context. That there are digital fixers embedded in digital communities who can introduce you to the local culture.” The concept of the digital fixer points to the challenge of sourcing on closed networking sites such as WhatsApp, WeChat, or KakaoTalk. How reporters discover the news when sites or communities on these sites are closed was a recurring question in our interviews, particularly when established journalists talked about “parachute journalists,” or reporters who had little knowledge of local languages.

Reporters commonly fly in from other places to report in sites of political unrest. Since the events are often fast moving, reporters turn to chat apps to understand the issues at stake, identify sources, acquire content for stories, and check for the latest updates from the different groups involved. Long-term resident journalists in zones of protest noted that so-called “parachute journalists” could be over-reliant on chat apps as a collective approach to newsgathering.

Many journalists noted language barriers in using chat apps. Despite apps’ facility in transmitting photos and videos, chat apps are language-intensive and require journalists to have a detailed understanding of formal and informal aspects of a given language (and often, more than one language). To use a chat app well, journalists need to know regional and local slang, and keep track of an ever-changing set of abbreviations and expressions, which are sometimes specific to a platform. During political unrest, journalists told us that the challenge is evermore present. Protesting is a public act, but participants want to know who is on their side and who is on the other side(s). Journalists observed that protesters rely on subtleties of language to distinguish between allies and adversaries. Because protesters knew that political adversaries, police, and government agencies would watch much of their communication, they also used codes and deliberate misspellings of words to create uncertainty and confusion among outsiders.

In the case of the 2014 Hong Kong protests, protesters intentionally used local idioms that would be challenging for malicious outsiders, even other Chinese, who tried to gain access to closed groups on chat apps. This included not just the traditional Chinese characters that are common to

Hong Kong's Cantonese, but also combinations of characters that carried specific local meanings. This complexity posed challenges for the many journalists who sought to follow, understand, and report on the fast-moving conversations on chat apps. One interviewee wanted to report on a major protest march starting in Hong Kong's central business district, but misread the details (written in colloquial Cantonese-style Chinese, substantially variant from standard Chinese) on WhatsApp. Although this journalist spoke good Mandarin Chinese, he found himself in the wrong place when the protest began. If an experienced Mandarin-speaking journalist can make this mistake, imagine the difficulty that journalists covering fast-moving chats full of slang on multiple platforms simultaneously face.

Similarities with Newsgathering on Other Social Networks

While chat apps provide opportunities for reporters to cheaply and quickly source information during political unrest, there are other ways these apps open up challenges for reporters in the field. Similar to social networking and other online sources, these include: creating echo chambers, verification, curtailing government censorship and surveillance, and acquiring professional skills and experience.

Creating Echo Chambers

In addition to creating opportunities to engage audiences, chat apps allow journalists to target audiences and segment interests. Our case study showed that chat apps may initially appear to offer an alternative to the generally pro-government stories offered by news programs on television. But as journalists explored chat apps during political unrest, they found that a new and different set of echo chambers existed. Describing the Hong Kong protests of 2014, one digital journalist said, "I try to counter [echo chambers] by 'liking' [on Facebook] different pages, by including [pro-protest] pages, [pro-government] pages, and some more centrist websites or opinion sites."⁵⁸

Yet, some journalists were disillusioned by the ways that social media

discourse became siloed and partisan. One reporter told us: “On the [pro-government] side they also have an extremely active social media presence. They do the same thing, mirroring what the [protest] side is doing with their own propaganda . . . I don’t see those things because my friends, by and large, do not share those things.”⁵⁹ Some reporters found that chat apps gave journalists more access to media-savvy activists, but did little to enhance discourse with government figures. The result was a communicative space as polarized as other media. Indeed, not all sides in the debate used chat apps with equal enthusiasm or skill (i.e., the student group with the youngest supporters dominated this space).

Like other social networking sites such as Twitter or Facebook,^{60 61} chat apps can create an illusion of a wider source network than journalists use in practice. On chat apps, journalists are less technologically reliant on a handful of legacy sources (e.g., state radio, dissidents with telephones, NGOs), but may choose to rely on a different but equally narrow set of sources, such as a small group of protest leaders. We found that some journalists saw chat apps not necessarily as an expansion of their social network, but instead as a way to keep in closer contact with people they already knew.

A related challenge of chat apps is particular platforms’ regional and national specificity. A digital reporter told us: “A really challenging thing about social media is that it’s so fragmented [across nations]. Likewise, everyone in the U.S. is on Snapchat, but people here are like, “What’s Snapchat?”⁶² This meant that journalists could make more effective use of existing sources for a particular region, but also that they might become more dependent on a regular set of sources. “On [chat apps] it’s more difficult to gather opinions across a broad range of people and fields of expertise,” said one reporter, adding: “It’s a lot more direct in that if I have somebody in my network already, it’s a lot easier to reach out to them to ask a question or arrange a phone call.”⁶³ Thus, the regional popularity of chat apps can perpetuate the classic reportorial problem of overreliance on a few sources while providing the illusion of a wider source network.

Verification

Within the coverage of the political protests, whether it is in-person conversation, on social networking sites, or on chat apps, rumors present some of the most difficult challenges for journalists. During a fast-moving event, rumors develop quickly and frequently, and journalists must decide which to take seriously, what to investigate, and what to report to audiences. Procedures for verifying information vary from one news organization to another—and even within news organizations—depending on the nature of the story covered. Chat apps further complicate this picture, since they can provide a mix of information and user-generated content from people personally known to journalists (contacts in real life) and sources emerging from the swiftness and anonymity of more open social media platforms. Chat apps do, however, come with features (geolocation, image tagging) that can assist in verifying user-generated content.

Alternatively, chat apps spread rumors quickly due to the volume of communication they host and the multimedia nature of chat content, which can include images, videos, and text that is fabricated or provided out of context. Our interviews showed that many people use chat apps to communicate with preexisting social groups in real life, allowing one individual to quickly spread unverified or un-contextualized information to persons immediately known to him or her. With chat apps and well-connected protesters, a rumor can move across a protest site, to other protest sites in the same city, and to audiences around the world long before journalists are able to corroborate and weigh evidence.

For example, during the 2014 Hong Kong protests a widely circulated photo appeared to show an armored personnel carrier entering a major tunnel leading to Hong Kong Island. Had the photo been current, it would have suggested a major escalation of force involving the People's Liberation Army. Journalists who covered this event told us they were asking questions like: Was this really a tunnel in Hong Kong? Was the photo current? Had the photo been altered in some way? The answer required local knowledge. Soon, local journalists and journalism students in Hong Kong determined that the photo was authentic, but dated to a military exercise from 2012. The chat apps' group-chat function, and the ability to quickly share multimedia data along contact networks, assisted quicker contextu-

alization and verification of this information. A wire journalist explained: “If the information is not verified, it’s not going to make it onto the wire. If it’s some sort of piece of color, like people are at the scene and sharing photographs of this and that, we take care to verify the dates of photos.”⁶⁴

Confirming the origin of an image or clip that reaches a journalist through multiple re-sharings can be a difficult process. To determine the origins of user-generated content, journalists need to be active participants in chat app networks, not simply passive harvesters of the content. As a European digital journalist noted:

It’s hard to find the original uploader on WeChat. I think you really need to have somebody who’s entrenched in WeChat and uses it regularly. We run into a similar problem in Syria also, where a lot of photos and videos are shared via WhatsApp, and Israel, where WhatsApp is also quite big . . . I think the strategy for us is also to make relationships with people in these WhatsApp groups.⁶⁵

When news breaks, and reporters in the field and newsroom are regularly sharing footage within groups, their verification work is made easier by physical or digital access to the point of content origin. Similarly, when reporters are part of preexisting groups or networks on chat apps, other users are more likely to trust the reporter and respond to requests for confirmations. During the Hong Kong protests, a reporter active on chat apps found that being a known participant was a critical part of verification:

Often we’ll get a message that says, “The police are coming to this place in fifteen minutes,” or “I heard that the police are going to shut down this section of Hong Kong,” or something. Word would just spread so fast. The quickest way [to verify this] would just be to go on the [protest movement message board] Facebook page and check: Do they have anyone on the ground in these places? Do they have pictures to verify that rumor?⁶⁶

Even small online communities of dedicated witnesses and fact-checkers can make a critical difference in verifying rumors.

Although in the case we studied news organizations and individual reporters used chat apps in a method similar to how social networking sites and user-generated content have been used since their beginnings,⁶⁷ one of the more interesting findings of this report was how and why news organizations used chat apps to organize themselves.

How Reporters Used Chat Apps as Tools of Organization

Chat App Groups Within and Across Newsrooms

Our interviews show that journalists have been using chat apps to communicate within and across newsrooms, and between reporters, as a way to organize themselves when newsgathering.

Collective chat apps groups

For a major story with numerous foreign journalists onsite, like the Hong Kong protests, there is a professional incentive to create groups of peers to stay in touch about major developments, even as individual journalists will pursue specific scoops or angles that might not be shared with potential competitors. One interviewee observed:

A lot of journalists started their own separate chat groups, especially some foreign ones who maybe don't speak Chinese or didn't have a really firm grasp of what was going on, so they would have a support system where they could ask questions about what was going on. I wasn't that involved in those groups, because I knew what was going on and I didn't really need help. I wanted to protect my own knowledge and information, but I knew that these groups existed.⁶⁸

As previously stated in this report, well-organized activist groups were often inviting journalists (and still do) to join dedicated media chat groups. The groups used these digital spaces as long-running press conferences.

Chat apps groups for journalists within news organization

News organizations may also create more siloed groups specific to their own institutions to increase their competitiveness and overage vis-à-vis other major news organizations. For example, large organizations leveraged institutional size to cover the protest at all sites around the clock, often coordinated in real time, through WhatsApp as an alternative to email. A wire service social media reporter explained: "We took shifts. We would go to one of the main protest sites and just monitor. The editor would assign us to each one of these locations and we would just file [our content] to the WhatsApp group."⁶⁹

58 New Frontiers in Newsgathering

Press information WhatsApp group for Scholarship, student protest group in Hong Kong



Chinese announcement of event with prominent activists' names hashtagged

Group leader Joshua Wong adding various journalists

English-language information request from Canadian journalist

Source: WhatsApp

Journalists invoked notions of shareability speed on chat apps when covering political unrest. As a former Asia foreign correspondent told us, chat apps proved especially useful in team-based reporting:

We used that as a way to communicate with each other and with the editor, whoever was editing back in the office. It was really hard as a reporter on your own to understand what was going on in the greater context, because you were caught in the middle. All you saw was the crowd in front of you, and it was a multi-site protest, so it was really hard to know what was going on in other places without using WhatsApp.⁷⁰

The Curious Case of Slack

The chat app of choice in Hong Kong was WhatsApp. Few journalists mentioned using Slack, which is popular in some newsrooms but not a place where sources make themselves available. Slack was only released in August 2013, so it was not surprising that journalists did not use Slack that much during the 2014 protests. This also appears to be a case of uneven, technological adoption: Some Silicon Valley innovations catch on in Asia, such as Facebook, and some, like Twitter, are simply not as popular or significant as a platform for communication. Our interviews highlighted that newsmakers did not use Slack internally, and only some of the news reporters found it useful during the 2014 Hong Kong protests and subsequent political unrest coverage. Slack was used at an institutional level among major news organizations with offices in Hong Kong. Correspondents told us that they were forming their own internal WhatsApp groups to cover all their bases during a breaking news story, since it was so much more efficient than email. We only found one case of reporters in a small-capacity news organization using Slack with the hashtag #Editorial. They would add comments about topics of interest on this hashtag. When there was sufficient information (e.g., URLs, quotes, sources) on a topic in the hashtag channel, they could write up a story based on that information.

Slack was not the preferred application of established, “big-box” news organizations looking to integrate chat apps as an extension of the newsroom. For example, Reuters staff used WhatsApp or WeChat both as a reporting tool and as an internal collaboration tool, similar to Slack. We found that during breaking news events, interviewees at large news organizations would communicate and coordinate with a small group of colleagues covering the story through the most easily available chat apps. Those apps are already integrated into their daily social lives and phone use; for instance, WeChat in mainland China and WhatsApp in Hong Kong. It remains difficult to answer whether Slack has reached a more dominant position within newsroom crisis reporting by now. Slack security concerns were not mentioned in our interviews. However, in our study the app of choice was WhatsApp mainly because this was where most information about the protest circulated, with WeChat (which is dominant in mainland China but less used globally) as

60 New Frontiers in Newsgathering

a secondary app favored by correspondents based in Beijing and Shanghai, but who reported from Hong Kong.

Conclusions and Future Research

In the last decade, social media applications have become central to a kind of newsgathering that lends itself to more open and social ways of communicating. This report used the case study of the Hong Kong protests to explore two ambitious questions: What do the patterns which emerged during the protests mean in terms of newsgathering in the age of private social networks and chat apps? Could private social networks and mobile chat apps mean the end of social newsgathering and the return of pre-social networking ways of gathering the news?

Findings

Using the Hong Kong protests and subsequent political unrest in the region, we found the following to be true: 1) Discussions on chat apps have allowed reporters to develop rich multimedia sources of information, drawn from real-life encounters (e.g., with QR code function); chat apps can also provide private network communication, which is particularly useful in contexts of censorship and surveillance; 2) Protesters and, to a lesser extent, official sources used chat apps to communicate statements, notably on the dedicated media chat group which supplemented press conferences and printed releases; 3) For reporters who flew in and had little knowledge of the culture and language, “digital fixers” allowed them to navigate the muddy informational terrains of these mobile applications; 4) Journalists used WhatsApp (as the chosen platform) as a way to organize themselves both across and within news organizations; 5) Journalists faced similar challenges to those they already encounter in social newsgathering on open platforms—for example, verifying content and identifying echo chambers; 6) “Closed” networks emulate one-to-one newsgathering methods that used to happen over the phone or email. This is primarily because young, mobile people prefer these applications for their ease of use, or to combat issues around privacy and surveillance.

Our case study highlighted the ever-present tension between closed versus open social networks for newsgathering. While early social platforms pointed toward a potential newsgathering democratization on open social networks online, chat apps offer a counter-narrative: a more exclusive and closed way of newsgathering.

Journalism and Changing Technology

In this report, we interviewed foreign correspondents, as opposed to innovators or people who have “technologically specific jobs.”⁷¹ Journalism scholarship has long grappled with the challenge for reporters and news organizations to embrace change in the industry. Most research points to the difficulty of adaptation in journalism practice and norms, whether outlets use innovation flow theories such as adoption (e.g., technology acceptance model, theory of reasoned action, or diffusion of innovation theory) or social construction of technology.^{72 73} In journalism practice and norms, change can also take multiple forms. Brian Ekdale et al. argued that technological change faces fewer hurdles than audience relationships, because “journalists recognize the need to adapt their practices to newer capabilities.”⁷⁴ Josep Lluís Micó et al. suggested that journalistic change depends on the position of journalists in the network (i.e., the complexity of groups within the media company, the historical distance between newsrooms, and power relationships complicated capability to change).⁷⁵

Since our report focuses on foreign correspondents rather than full-time technologists or newsroom innovators, our findings point toward relative continuity in foreign correspondents’ newsgathering practices. These are reporters trying to catch up with sources, who have moved to new technologies in order to communicate with each other. This journalistic practice represents a form of cat-and-mouse game. Echoing Welsch’s observation that chat apps are a “supplement to regular reporting,” the intention behind this game is driven by pre-social networking journalistic methods of seeking sources and stories where they are.⁷⁶ As a result, the journalistic construction of the technology [chat apps] is tied to foreign correspondents’ practices during political unrest. In this context, chat apps become evermore relevant as an object of study since this is where sources are increasingly communicating with each other to make sense of their social lives and world events.

A key finding of this report is the way that chat apps have become essential tools for reporting teams located both near and far from events. Reporters have relied on chat apps in their work at the center of the action, across town in a newsroom, and hundreds or thousands of miles away. Chat

apps are the latest in a long line of tools journalists have used to supplement their on-the-ground reporting with information gleaned from a variety of sources. Using a mixture of public and private social networks, journalists follow stories as they emerge and piece together sources, questions, and facts. Especially in large-scale instances of political unrest, they have become the preferred tools for many reporters and news organizations as they undertake fundamental journalistic practices: sourcing, newsgathering, and verification. Old goals and processes remain intact; what is new is the technology.

We can identify ways that, beyond their coverage of specific events, journalists have embedded chat apps into their newsgathering processes. Our interviewees gave many examples of the routinization of chat apps in ordinary day-to-day coverage of political unrest. In the nearly two years since the Hong Kong protests, journalists in Hong Kong and China have come to depend on chat apps for daily newsgathering and sourcing, background information, and for verifying everything from claims to quotes to content. Journalists with language and technical skills have made active use of the some-to-some and one-to-one functionalities of chat apps. In some cases this has given reporters access to a wider set of sources; in other cases, reporters have used chat apps to stay in more constant touch with preexisting sources. Some of the more large-scale uses of chat apps—such as the in-house WhatsApp groups—set up by large news organizations to coordinate a dozen or more reporters arose in response to the specific circumstances of the Umbrella Movement protests. In interviews, reporters and editors indicated that there was much they liked about these groups. Faced with large physical gatherings and a torrent of user-generated content, they could work with colleagues at protest sites and in the newsroom. Our interviewees consistently said they were satisfied with what chat apps brought to their coverage. Asked if they would approach coverage differently in a future event of this magnitude, no reporter said they would abandon or lessen usage of chat apps. So while large-scale chat app groups are not a daily feature of reporting, the technology allowing those groups remains very much in the daily practices and consciousness of reporters.

Future Research

As more and more people are moving on to chat apps, further research on national and cross-national uses of chat apps for newsgathering is pressing. For example, as mobile chat apps become an established part of news production, will chat apps change the need of professional journalists to be onsite to get the story, or will good journalism of the future simply require an extension of shoe-leather reporting into the digital realm? Do chat apps present unique functionalities requiring that news organizations seeking to use them institutionally set different policies and approaches distinct from those applied to their social networking sites? And will media consumers' growing familiarity with chat apps change norms and expectations of how chat apps' newsgathering is featured in published media? With the digital fixer, especially for people who do not already have a network or knowledge of language, can chat apps emulate one-to-one newsgathering methods that happen on the phone or email? All of these questions raise new ones around trust building, especially when reporters discuss trust with sources in the context of censorship and surveillance.

Authors' Biographies

Valerie Belair-Gagnon, Ph.D., is an assistant professor of Journalism Studies at the University of Minnesota School of Journalism and Mass Communication. She is also an affiliated fellow at the Yale Information Society Project where she was executive director from 2014–16. Her research draws from media sociology, news production, emerging media, and digital cultures. Her work explores the implications of emerging media in news-gathering and news production, and builds on her book, *Social Media at BBC News: The Re-Making of Crisis Reporting* (Routledge, 2015). She tweets @journoscholar.

Colin Agur, Ph.D., is an assistant professor at the University of Minnesota School of Journalism and Mass Communication. He is also an affiliated fellow at the Yale Law School Information Society Project. His research examines the history of telecommunications and contemporary mobile phone usage, the social and legal implications of mass mobile telephony, and the unanticipated consequences of network development. At the International Communication Association (ICA), Agur is the vice chair for the Mobile Communication Interest Group. He tweets @colinagur.

Nicholas Frisch is an Asian studies doctoral student at Yale's graduate school and a resident fellow at the Yale Law School Information Society Project. He has covered Asian politics and culture for *The Wall Street Journal*, *The New York Times*, and *Foreign Affairs*.

Citations

1. BI Intelligence, "Messaging Apps Are Now Bigger Than Social Networks," Business Insider, September 20, 2016, <http://www.businessinsider.com/the-messaging-app-report-2015-11>.
2. BI Intelligence, "Messaging Apps Are Now Bigger Than Social Networks," Business Insider, September 20, 2016, <http://www.businessinsider.com/the-messaging-app-report-2015-11>.
3. Caroline O'Donovan, "Around the World, Media Outlets and Journalists Are Using Chat Apps to Spread the News," *NiemanLab*, June 10, 2014, <http://www.niemanlab.org/2014/06/around-the-world-media-outlets-and-journalists-are-using-chat-apps-to-spread-the-news/>.
4. Jedidiah R. Crandall et al., "Chat Program Censorship and Surveillance in China: Tracking TOM-Skype and Sina UC," *First Monday*, no. 7 (2013), <http://firstmonday.org/ojs/index.php/fm/article/view/4628>.
5. Asia Chats Research Team, "Asia Chats: Analyzing Information Controls and Privacy in Asian Messaging Applications," Citizen Media Lab.
6. Valerie Belair-Gagnon and C.W. Anderson, "Citizen Media and Journalism," *The International Encyclopedia of Digital Media and Society*, 2015.
7. Stuart Allan, *Citizen Witnessing* (London: Wiley, 2013).
8. Alastair Reid, "WhatsApp at 1 Billion: How Can Journalists Use the Chat App for Newsgathering?" First Draft News, 2016, <https://firstdraftnews.com/whatsapp-at-1-billion-how-can-journalists-use-the-chat-app-for-newsgathering/>.
9. Alastair Reid, "WhatsApp at 1 Billion: How Can Journalists Use the Chat App for Newsgathering?" First Draft News, 2016, <https://firstdraftnews.com/whatsapp-at-1-billion-how-can-journalists-use-the-chat-app-for-newsgathering/>.
10. *South China Morning Post*, "Umbrella as Symbol in Hong Kong 2014 Protests," September 29, 2014.
11. Pasu Au Yeung, "Hong Kong Umbrella Revolution #umbrellarevolution," October 10, 2014, https://commons.wikimedia.org/wiki/File%3AUmbrella_Revolution_in_Admiralty_Night_View_20141010.jpg.
12. Joseph Lichterman, "The Guardian Is Chatting About Tonight's GOP Debate on WhatsApp," *NiemanLab*, December 15, 2015, <http://www.niemanlab.org/2015/12/the-guardian-is-chatting-about-tonights-gop-debate-on-whatsapp/>.
13. Alastair Reid, "WhatsApp at 1 Billion: How Can Journalists Use the Chat App for Newsgathering?" First Draft News, 2016, <https://firstdraftnews.com/whatsapp-at-1-billion-how-can-journalists-use-the-chat-app-for-newsgathering/>.
14. Joshua Benton, "Here's Some Remarkable New Data on the Power of Chat Apps Like WhatsApp for Sharing News Stories," *NiemanLab*, November 20, 2014, <http://www.niemanlab.org/2014/11/heres-some-remarkable-new-data-on-the-power-of-chat-apps-like-whatsapp-for-sharing-news-stories>.

74 New Frontiers in Newsgathering

15. Joshua Benton, “You’re Probably Underestimating How Much Your Articles Are Being Shared Via Text Message,” *NiemanLab*, October 22, 2015, <http://www.niemanlab.org/2015/10/youre-probably-underestimating-how-much-your-articles-are-being-shared-via-text-message/>.

16. Felicity Morse, “How Social Media Helped Me Deal with My Mental Illness,” BBC Newsbeat, February 18, 2016, <http://www.bbc.co.uk/newsbeat/article/35607567/how-social-media-helped-me-deal-with-my-mental-illness>.

17. Madeline Welsh, “What *The Guardian* Learned From Comparing Facebook Live and Periscope for Event Coverage,” *NiemanLab*, February 18, 2016, <http://www.niemanlab.org/2016/02/what-the-guardian-learned-from-comparing-facebook-live-and-periscope-for-event-coverage/>.

18. Alastair Reid, “Closed Networks, Chat Apps and Trust: The End of Social Newsgathering?” First Draft News, 2016, <https://firstdraftnews.com/closed-networks-chat-apps-and-trust-the-end-of-social-newsgathering/>.

19. Mark Little, “The People’s Republic of WeChat,” Storyful, November 24, 2014, <http://blog.storyful.com/2014/11/24/the-peoples-republic-of-wechat/#.V83K-5MrLkJ>.

20. Staff, “Hong Kong Protesters Use Firechat ‘Daisy Chain’ App,” BBC News, October 1, 2014, <http://www.bbc.com/news/technology-29448739>.

21. Trushar Barot, “Instant Messaging: BBC News on Chat Apps,” 2015, <http://www.bbc.co.uk/academy/journalism/skills/digital-journalism/article/art20150408142840687>.

22. Staff, “How People Use WhatsApp to Share Breaking News with the World,” BBC News, February 2, 2016, <http://www.bbc.com/news/technology-35471694>.

23. Benjamin Mullin, “How Vox.com Plans to Reach Younger Audiences with Snapchat Discover,” Poynter, November 23, 2015, <http://www.poynter.org/2015/how-vox-com-plans-to-reach-younger-audiences-with-snapchat-discover/386358/>.

24. Joe Grimm, “Live Chat Replay: What Opportunities Do Storytelling Apps Hold for Journalists?” Poynter, May 7, 2014, <http://www.poynter.org/2014/live-chat-today-what-opportunities-do-storytelling-apps-hold-for-journalists/250906/>.

25. Georgia McCafferty, “Student-Run Page That Vets Protest Rumours Swamped with ‘Likes’,” October 1, 2014, <https://jmsc.hku.hk/2014/10/student-initiated-protest-verification-page-exceeds-100000-likes/#sthash.zHVVhPVe.dpuf>.

26. Journalism and Media Studies Centre at The University of Hong Kong, 2015, <https://jmsc.hku.hk/2015/03/asia-chats-analyzing-security-and-privacy-of-mobile-messaging-apps/>.

27. Simon Cottle, “Reporting Demonstrations: The Changing Media Politics of Dissent,” *Media, Culture & Society* (2008): 853–872.

28. Isabel Macdonald, “Parachute Journalism in Haiti: Media Sourcing in the 2003–2004 Political Crisis,” *Canadian Journal of Communication*, no. 2 (2008).

29. Simon Cottle, "Media and the Arab Uprisings of 2011: Research Notes," *Journalism*, no. 5 (2011): 647–659.
30. Paul S. N. Lee et al., "Social Media and Umbrella Movement: Insurgent Public Sphere in Formation," *Chinese Journal of Communication*, no. 4 (2015): 356–375.
31. Emily Stacey, "Networked Protests: A Review of Social Movement Literature and the Hong Kong Umbrella Movement," *International Journal of Civic Engagement and Social Change*, no. 3 (2015): 16.
32. Trushar Barot and Eytan Oren, "Guide to Chat Apps," Tow Center for Digital Journalism, 2015, <http://towcenter.org/research/guide-to-chat-apps/>.
33. Hayes Mawindi Mabweazara, "Between the Newsroom and the Pub: The Mobile Phone in the Dynamics of Everyday Mainstream Journalism Practice in Zimbabwe," *Journalism: Theory, Practice and Criticism* 12, no. 6 (2011).
34. Per Skålén et al., "Cocreating the Arab Spring: Understanding Transformation of Service Systems in Contention," *Journal of Service Research*, no. 3 (2015): 250–264.
35. Shauna Mottiar, "Protest and Participation in Durban: A Focus on Cato Manor, Merebank and Wentworth," *Politikon*, no. 3 (2014): 371–385.
36. Paul S. N. Lee et al., "Social Media and Umbrella Movement: Insurgent Public Sphere in Formation," *Chinese Journal of Communication*, no. 4 (2015): 356–375.
37. Emiliano Treré, "Reclaiming, Proclaiming, and Maintaining Collective Identity in the #YoSoy132 Movement in Mexico: An Examination of Digital Frontstage and Backstage Activism Through Social Media and Instant Messaging Platforms," *Information, Communication & Society*, no. 8 (2015): 901–915.
38. Gulizar Haciyakupoblu and Weiyu Zhang, "Social Media and Trust During the Gezi Protests in Turkey," *Journal of Computer-Mediated Communication*, no. 4 (2015): 450–466.
39. Simon Cottle, "Reporting Demonstrations: The Changing Media Politics of Dissent," *Media, Culture & Society* (2008): 853–872.
40. Interview with a columnist, January 6, 2016.
41. Interview with a European digital reporter, January 6, 2016.
42. Michelle Castillo, "How a Chat App for Burning Man Turned into a Tool for Revolution," *AdWeek*, March 25, 2015, <http://www.adweek.com/news/press/how-chat-app-burning-man-turned-tool-revolution-163665>.
43. Staff, "How People Use WhatsApp to Share Breaking News with the World," BBC News, February 2, 2016, <http://www.bbc.com/news/technology-35471694>.
44. Cohen Noam, "Hong Kong Protests Propel FireChat Phone-to-Phone App," *The New York Times*, October 5, 2014, http://www.nytimes.com/2014/10/06/technology/hong-kong-protests-propel-a-phone-to-phone-app-.html?_r=1.

76 New Frontiers in Newsgathering

45. Archie Bland, “FireChat—The Messaging App That’s Powering the Hong Kong Protests,” *The Guardian*, September 29, 2014, <https://www.theguardian.com/world/2014/sep/29/firechat-messaging-app-powering-hong-kong-protests>.

46. Peter Shadbolt, “FireChat in Hong Kong: How an App Tapped Its Way into the Protests,” CNN, October 16, 2014, <http://www.cnn.com/2014/10/16/tech/mobile/tomorrow-transformed-firechat/>.

47. Interview with a European print journalist, January 5, 2016.

48. Interview with a European print journalist, January 5, 2016.

49. Interview with a digital news journalist, January 13, 2016.

50. Interview with a digital news journalist, January 13, 2016.

51. Interview with a reporter, January 5, 2016.

52. Interview with an digital reporter, January 7, 2016.

53. Interview with a print reporter, January 18, 2016.

54. Interview with a print reporter, January 18, 2016.

55. Interview with a European fixer, January 12, 2016.

56. Interview with a former Asia foreign correspondent, January 12, 2016.

57. Alastair Reid, “Closed Networks, Chat Apps and Trust: The End of Social Newsgathering?” First Draft News, 2016, <https://firstdraftnews.com/closed-networks-chat-apps-and-trust-the-end-of-social-newsgathering/>.

58. Interview with a reporter, January 5, 2016.

59. Informal conversation with a financial news journalist, January 12, 2016.

60. Valerie Belair-Gagnon, *Social Media at BBC News: The Re-Making of Crisis Reporting* (London: Routledge, 2015).

61. Gilad Lotan et al., “The Revolutions Were Tweeted: Information Flows During the 2011 Tunisian and Egyptian Revolutions,” *International Journal of Communication* (2011).

62. Interview with a stringer, January 13, 2016.

63. Interview with a European print journalist, January 5, 2016.

64. Interview with a wire service social media reporter, January 7, 2016.

65. Interview with a European digital fact-checker, January 6, 2016.

66. Informal conversation with a financial news journalist, January 12, 2016.

67. Valerie Belair-Gagnon and C.W. Anderson, “Citizen Media and Journalism,” *The International Encyclopedia of Digital Media and Society*, 2015.

68. Interview with a digital news journalist, January 13, 2016.

69. Interview with a print journalist, January 7, 2016.

70. Interview with a European fixer, January 12, 2016.

71. Matthew Powers, “In Forms That Are Familiar and Yet-to-Be Invented: American Journalism and the Discourse of Technologically Specific Work,” *Journal of Communication Inquiry*, no. 1 (2011): 24–43.

72. Simon Cottle, “Media and the Arab Uprisings of 2011: Research Notes,” *Journalism*, no. 5 (2011): 647–659.

73. Bruce Garrison, "Diffusion of Online Information Technologies in Newspaper Newsrooms," *Journalism*, no. 2 (2001): 221–239.

74. Brian Ekdale et al., "Making Change: Diffusion of Technological, Relational, and Cultural Innovation in the Newsroom," *Journalism & Mass Communication Quarterly*, no. 4 (2015): 938–958.

75. Josep Lluís Micó et al., "To Wish Impossible Things: Convergence as a Process of Diffusion of Innovations in an Actor-Network," *International Communication Gazette*, no. 1 (2013): 118–137.

76. Madeline Welsh, "What *The Guardian* Learned From Comparing Facebook Live and Periscope for Event Coverage," *NiemanLab*, February 18, 2016, <http://www.niemanlab.org/2016/02/what-the-guardian-learned-from-comparing-facebook-live-and-periscope-for-event-coverage/>.