



# CHAT APPS:

FRONTIERS AND CHALLENGES FOR JOURNALISM

A SOUTH KOREAN CASE STUDY | JANUARY 2018

Google News Lab



INSTITUTE FOR THE FUTURE

# Executive Summary

Chat apps are quickly becoming the preferred medium for digital communication in some of the world's fastest-growing markets. Global monthly users of the top four chat apps (WhatsApp, Messenger, WeChat, and Viber) now exceed those of the top four traditional social media networks (Facebook, Instagram, Twitter, and LinkedIn) (Business Insider Intelligence, 2017). The most popular chat app, WeChat, had 889 million monthly active users as of Q4 2016 (according to Tencent Penguin Intelligence's 2017 WeChat User Behavior Report [as cited in Brennan, 2017]).

Given these radical shifts, the Institute for the Future (ITF), with support from the Google News Lab, conducted an ethnographic case study of the chat app news media ecosystem in Korea. The goal was to better understand the role chat apps will play in the creation and propagation of news around the world, highlighting key challenges and opportunities for newsrooms and journalists.

Our study focuses primarily on [KakaoTalk](#), the most popular chat app in South Korea. South Korea has the fastest internet speed in the world (averaging 28.6 Mbps in the first quarter of 2017 [Akamai, 2017]), the highest smartphone ownership rates in the world (Hana, 2016), free access to global media and internet, and high saturation of both indigenous (KakaoTalk) and foreign chat apps, making the country a good indicator where news media are headed both in the region and around the world.

**We found three key insights for journalists and newsrooms to consider:**

**1. MILLIONS OF ORDINARY PEOPLE ARE DRIVING THE FLOW OF NEWS THROUGH CHAT APPS, FURTHER EVOLVING THE INFORMATION ECOSYSTEM IN THE DIGITAL WORLD:**

The flow of information today within chat apps is similar to a massive, virtual version of the children's game of telephone, in which individuals whisper messages to each other one by one, the final message inevitably differing significantly from the original. The quality of information risks degradation as it's shared, especially since static screenshots of unknown provenance are a favored medium for everything from sharing news to organizing social meetups and submitting work to a boss. Not only are chat users distributors, they often paraphrase, contextualize, and editorialize news and information, shifting authority from professional journalists to citizens.

**2. CHAT APPS ARE CHANGING HOW NEWS IS PRODUCED:** Chat apps are prevalent throughout the news production cycle. They are being used as all-in-one devices to record, edit, and publish news. Chat apps are also used to build networks of journalists that fact-check stories in real time. Our interviews indicate that chat apps are already helping journalists and newsrooms coordinate news across a more decentralized workforce.

### **3. CHAT APPS ARE REDEFINING THE RELATIONSHIP BETWEEN JOURNALISTS AND READERS AND CREATING NEW MONETIZATION OPPORTUNITIES:**

While the social nature of chat apps creates significant challenges for newsrooms to engage authentically and maintain their brand, it creates new opportunities for individual journalists to build closer relationships with readers and insert themselves directly into their conversations. In the same way that news production may become deinstitutionalized with the help of machines, chat apps are enabling journalists to become their own distributors and redefine the journalist-reader relationship. With strengthened relationships, new monetization opportunities have emerged such as crowdfunding.

Chat apps are creating new roles for people, journalists, and newsrooms throughout the news cycle, and are inspiring a movement in journalism research to explore how the democratizing potential of digital technologies undermines the practices of legacy institutions. Much of this research aims to ensure the quality of information, and highlights the need to develop new models for accountability. IFTF's research suggests three potential approaches to preserve quality information within the chat app ecosystem:

#### **1. COLLABORATE WITH USERS TO MITIGATE INFORMATION DISORDER WITHIN CHAT APPS:**

News organizations, platforms, and users must work together to develop standards for identifying and classifying mis- and disinformation within chat apps.

#### **2. USE MACHINES WHERE POSSIBLE TO OPTIMIZE ALL ASPECTS OF NEWS:**

Newsrooms should embrace the economic benefits of machines by incorporating technologies such as AI, collaborative filtering, and bots that give journalists, newsrooms, and users greater power to report, verify, and share news.

#### **3. GET AHEAD OF THE CHANGING MONETIZATION STRUCTURE SURROUNDING CHAT APP JOURNALISM:**

Newsrooms should use chat app tools and technologies to help boost their reputation for distributing verified, well-sourced information.

Media organizations have an opportunity to create value-add products and partnerships that are native to the platform. For journalists, particularly freelancers, building their personal brand will allow them to tap into monetization opportunities such as crowdfunding platforms to support their work.

Flows of information within chat apps are difficult for any individual or institution to control but can be shaped by actors at every stage of the news cycle. Chat app users wield tremendous control as peer-to-peer news packagers and distributors, but this newer medium also gives news organizations and journalists the opportunity to redefine relationships with their audiences and generate new monetization streams.

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# 1. Introduction

Over the past year, the Google News Lab has expanded into Asia with a focus on fueling innovation in newsrooms across the region. In that time, we've seen how chat apps are quickly becoming the preferred medium for digital communication and wanted to study how this trend could impact journalism and the spread of quality information. In collaboration with Institute for the Future, an independent, non-profit research organization, we conducted a case study in Korea to better understand the role chat apps play in the creation and propagation of news.

The nature of chat app platforms has given users powerful new participatory roles in the way news is reported, packaged, shared, and funded. The majority of information flows in chat apps are between friends, family, and coworkers—an individual's social network. Newsrooms and journalists are not present in many of these peer-to-peer chat conversations, further limiting the role journalists are able to play as providers of objective, verified, factual information. In this increasingly fragmented and distributed environment, it has become even more difficult for news organizations to establish credibility with readers.

This paper explores the challenges and opportunities that lie ahead for news publishers by drawing on lessons from the emerging Korea chat newsroom ecosystem.

## 1. INTRODUCTION

### *THE GROWTH OF CHAT APPS*

The Reuters Institute Digital News Report 2017 found that 23 percent of people surveyed globally use chat apps weekly for news (Newman et al., 2017). This practice is most common in Asia and South America: 51 percent of people surveyed in Malaysia and 46 percent in Brazil use WhatsApp for news, while LINE is popular for news with 45 percent of Taiwanese. In South Korea, KakaoTalk is the top social platform for news, used more often than Facebook and other social networks. This year is the first time the report's researchers started tracking the sharing of news in chat apps, a signal of the role chat apps are beginning to play and the data that will soon be available to newsrooms to better understand global chat app practices.

The Asia Pacific region is ahead of the U.S. across the entire chat app landscape. Even though the total download rates of chat apps in the U.S. and Asia Pacific are roughly equal, Asia Pacific has a higher adoption rate compared to the U.S. and generates three times as much revenue from chat apps. With the world's most advanced mobile technology markets, government-led broadband policies, dense urban populations, and highly trend-conscious consumers, Asia Pacific has generated a rich ecosystem of unique chat apps.

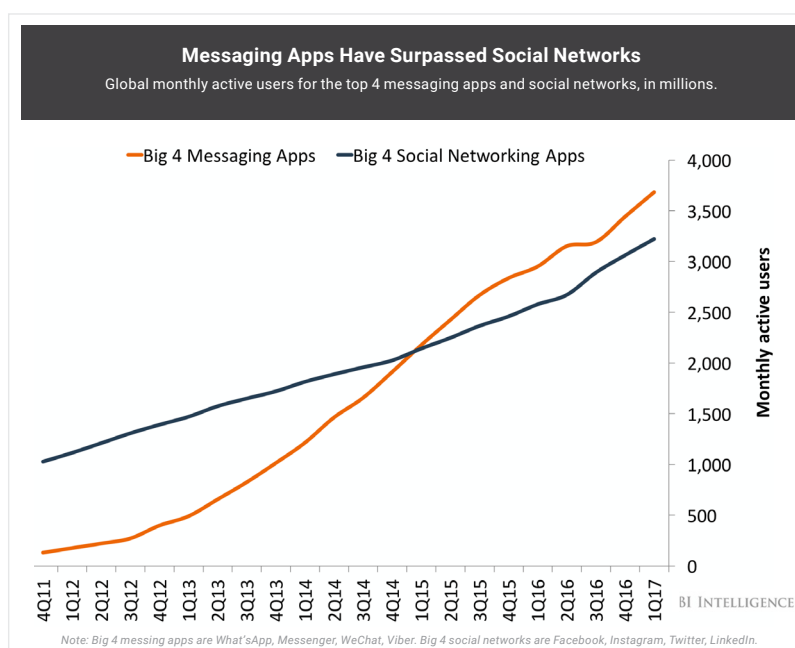
Global monthly users of the top four chat apps (WhatsApp, Messenger, WeChat, and Viber) now exceed those of the top four traditional social media networks (Facebook, Instagram, Twitter, and LinkedIn), and chat apps have been rapidly increasing in popularity since 2013 (Business Insider Intelligence, 2017). The most popular chat app, WeChat, had 889 million monthly active users as of Q4 2016 (according to Tencent Penguin Intelligence's 2017 Wechat User Behavior Report [as cited in Brennan, 2017]). Our study focuses primarily on KakaoTalk, the dominant chat app in South Korea, with monthly users covering 95 percent of Korean smartphone users (KakaoTalk, 2015).

The growth in chat apps is largely due to the evolution of their purpose in society to become more than mere messaging tools. Initially simple alternatives to SMS for sending messages, pictures, and videos, chat apps in Asia are now robust marketplaces for banking, shopping, gifting, and working. For instance, in June 2017, Kakao Mobility, an offshoot of the Korea-based KakaoTalk, raised \$437 million for further development of its taxi-hailing service, which surpasses Uber in the country (Russell, 2017). When the online-only Kakao Bank launched in July 2017, over a million accounts opened in its first five days (Chung, 2017). Koreans can book haircut appointments, access coupons, and view and pay bills, all without leaving the app. Across Asia, chat apps are becoming an increasingly important mode of business communication, too. The 2017 WeChat User Behavior Report found that over 57 percent of new contacts are work-related compared to just under 21 percent who are friends and family (Brennan, 2017).



## 1. INTRODUCTION

Chat app platforms have contributed to this growth by developing innovative new formats and monetization strategies to grow user engagement, such as subscription packages for emojis and animated GIFs based on cartoon characters, as well as small gifts users can send to friends to redeem offline. Mobile payments in China doubled between 2015 and 2016, with WeChat Pay making up 40 percent of payments. Nearly 80 percent of these payments were less than 100 RMB (US\$15), compared to 20 percent in 2014, suggesting that chat apps have become a frequent medium for small financial transactions between friends or for everyday purchases (Meeker, 2017).



Source Companies, Apptopia, TechCrunch, Bi Intelligence estimates, 2017

### INFORMATION DISORDER WITHIN CHAT APPS AROUND THE WORLD

In recent years, state and non-state actors have found success in influencing communication flows and even in promoting violent offline political protest during contested elections, security crises, and other high-profile events. Powerful political actors have used techniques to censor and attack journalists and propel counterfeit trends over platforms from Twitter to WeChat. Over the last five years, cases have been documented in Argentina (Rueda, 2012), Australia (Peel, 2013), Azerbaijan (Pearce, 2014), Bahrain (Jones, 2013), Brazil (Córdova et al., 2017), China (Krebs, 2012), Iran (Wendling, 2016), Italy (Cresci et al., 2015), Mexico (Savage et al., 2016), Russia (Sanovich, 2017), Saudi Arabia (Freedom House, 2013), South Korea (Sang-hun, 2013), Turkey (Saka, 2014), the United Kingdom (Howard & Kollanyi, 2016), the United States (Woolley & Guilbeault, 2017), and Venezuela (Forelle et al., 2015).

## 1. INTRODUCTION

The bulk of research thus far on the online spread of mis- and disinformation has focused on data from platforms like Twitter, Reddit, and YouTube (Renner, 2017; Faris et al., 2017; Woolley & Howard, 2017). While many of the findings are translatable to chat apps, the proliferation of mis- and disinformation in these peer-to-peer networks poses even greater difficulties for fact-checkers and researchers due to the complexity of tracking the creation and flow of content in a closed ecosystem (Newman et al., 2017; Wardle & Derakhshan, 2017).

While closed messaging apps continue to grow in popularity, so too does their potential for the spread of mis- and disinformation. Indeed, cases in the Philippines, India, and Kenya reveal that chat apps are already being harnessed to spread disinformation for the purposes of governmental influence (Ressa, 2017; Fischer, 2017). For example, according to a recent study from Oxford, Brazilians are facing unprecedented levels of computational propaganda and fabricated news (Arnaudo, 2017). Research, however, is still nascent with regard to understanding the role chat apps will play in information ecosystem.

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### TECHNOLOGICAL INNOVATION DRIVES A NEW PARADIGM FOR TRUST



***We shape our tools and, thereafter, our tools shape us.*** – John Culkin (1967)

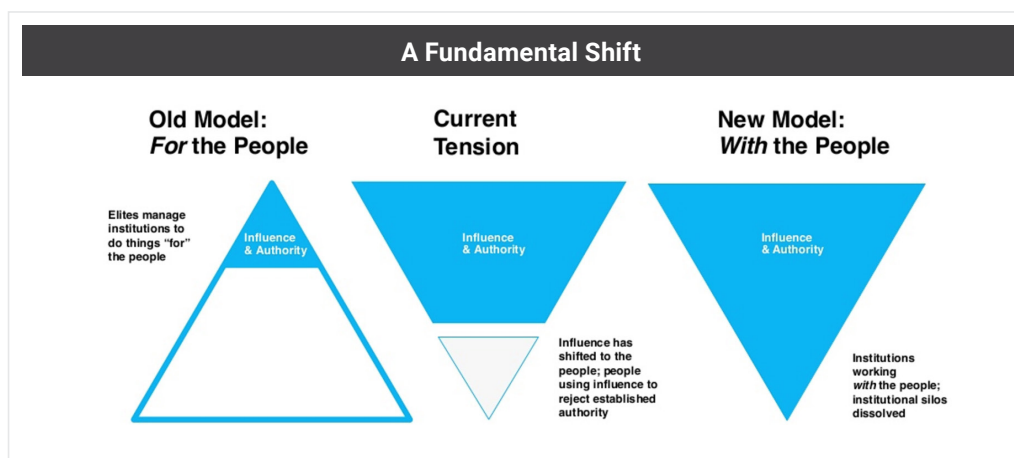
It is clear that the communications technologies we have built are indeed shaping us and changing the way mis- and disinformation spreads. They have changed how communities form, how we communicate with each other, and even language itself. We also see that authority, influence, and trust have shifted away from traditional institutional structures to more organic forms of social communication between individuals. The graphic below from the 2017 Edelman Trust Barometer depicts old, current, and new models for societal trust. We are moving toward a fully distributed system in which people—and machines—play an active role in both the creation and the propagation of content.

The 2017 Barometer study found that, for the first time, “a person like yourself” is perceived to be as credible as an academic or technical expert, further supporting the transition to a distributed way of communicating. All four of the institutions tracked in the study—government, business, media, and nongovernment organizations—suffered an “implosion of trust,” falling for the first time since the annual study started 17 years ago. Trust in media represented the greatest decline, plunging to all-time lows in 23 of the 28 countries surveyed.



## 1. INTRODUCTION

At the same time, some are calling chat apps “the dark future of misinformation and disinformation” (Dias, 2017) or the “end of social newsgathering” (Reid, 2016) due to the difficulty of verifying information shared within closed networks between individuals. Yet, there are potential opportunities to redefine audience relationships and open up new monetization opportunities, but journalists and newsrooms must understand and adapt to chat apps to build resilience for the future.



Source: 2017 Edelman Trust Barometer

### WHY SOUTH KOREA

The Asia Pacific region has the highest adoption of chat apps globally, and at the top of the list is Korea. Enabled by the fastest internet speed in the world (averaging 28.6 Mbps in the first quarter of 2017 [Akamai, 2017]), the highest smartphone ownership rates in the world (Hana, 2016), uncensored access to global media and internet, and saturation-level use of both indigenous (KakaoTalk) and foreign chat apps, the country is a good indicator where news media are headed, both in the region and in the rest of the world.

Our case study also gives a window into how chat apps are used for news in a low-trust environment. South Korea is one of the world's populations least trusting of news. Only 23 percent of Koreans trusted the news in 2017, the lowest of the 36 countries surveyed in the Reuters Institute Digital News Report 2017 (Newman et al., 2017); Korea was second to last in 2016 (Newman et al., 2016). In addition, 2017 was an unprecedented political year for the country, with massive protests in the streets, a presidential impeachment, and widespread concern about the role information disorder within KakaoTalk specifically played in the political scandal and subsequent election.

## 1. INTRODUCTION

Korea also has a history of using new technologies to build innovative journalism models in an environment of low institutional trust. In 2000, before Facebook, Twitter, and Wikipedia were founded, Korean journalism scholar Oh Yeon-ho founded OhmyNews, an online crowdsourced news blog with the motto “Every citizen is a reporter.” As of August 2017, over 85,000 citizen reporters have written 915,374 articles, which are edited by a staff of about 40 trained journalists (“오마이뉴스 - 모든 시민은 기자다” [OhmyNews], 2017). A foreign correspondent told us, “It’s established itself as a trustworthy source. I can’t think of a parallel in America.” We believe innovations such as this one in Korea can yield a number of significant indicators of future behaviors and practices around news production, distribution, and consumption within the chat environment.

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### **METHODOLOGY:** ANTICIPATORY ETHNOGRAPHY

IFTF conducted this case study in May and June of 2017 using anticipatory ethnography, a qualitative approach that blends ethnographic inquiry with futures methods to contextualize today’s leading-edge behaviors and forecast technological and social change.

The Institute conducted in-depth interviews with eight users ranging in age from 17 to 31, including a female high school student, a 20-year-old male serving his compulsory time in the Korean military, and a self-described “feminist citizen journalist.” These interviews were conducted in Korean and in person, except for the participant living on a military base. We also interviewed nine experts across journalism and technology in Korea, including a government spokesperson, a mentor to Korean media startups, an expert in AI policy in Korea and China, local journalists, and foreign correspondents. These interviews were conducted in English and in person, by telephone, or by video conference. In addition to our in-depth interviews, we conducted two focus groups with 27 Korean youth who are studying or have interned or worked with companies related to news, communications, and media. These focus groups were conducted in English and Korean.

IFTF transcribed the interviews and coded the findings using qualitative research software. The quotes throughout this paper are from interviews and have been translated and lightly edited for anonymity and understandability in English.



## 2. Key Findings: A South Korean Case Study

The following sections summarize our key findings about how chat apps are shaping the news ecosystem in Korea, the challenges chat applications present to the quality of news information, and the opportunities this new medium provides newsrooms and journalists as society moves into a more distributed communications framework. These findings have not been quantified, but we believe they present important insights to consider in this quickly evolving landscape.

## 2. KEY FINDINGS: A SOUTH KOREAN CASE STUDY

### **A** *MILLIONS OF ORDINARY PEOPLE ARE DRIVING THE FLOW OF NEWS THROUGH CHAT APPS, FURTHER EVOLVING THE INFORMATION ECOSYSTEM IN THE DIGITAL WORLD*

The flow of information today within chat apps is similar to a massive, virtual version of the children's game of telephone, in which individuals whisper messages to each other one by one, the final message inevitably differing significantly from the original. The quality of information risks degradation as it's shared. Within a chat app ecosystem, stories can mutate rapidly on a massive scale. Of course, the closed network nature of chat apps makes this mutation particularly challenging to track, verify, or debunk.

**“** *Many social problems already existed without this technology, but it is true that it spreads more quickly through chatting applications.”*

– citizen journalist covering sexual harassment and violence

Korea's culture is built on efficiency and speed. “Pali pali”—a ubiquitous phrase that means “Hurry up!” or “Faster!”—has come to define the Korean way of life. Today's youth have a sense of urgency that permeates all aspects of life and compounds the degradation of quality information as it is shared. A Korean university student told us that Koreans “do not tolerate slow transportation, long lines, and long articles.” With a smartphone in every hand, communications in *pali pali* Korea have therefore become highly visual. Screenshots are a favored medium for everything from organizing social meetups to submitting work to a boss. It's common to share screenshots of calendars rather than text back and forth when scheduling study sessions or drinks. This practice has carried over to sharing news in KakaoTalk, with people circulating screenshots of articles or chats rather than links.

**“** *Sending an image is more intuitive and fast. If I send a link, the other person has to click the link, go on that page and read it. But they can read what's on an image on that spot.”*

– university student

Korean news media have embraced this behavior as well and are early adopters of a “card news” format, which summarizes information into easily shareable images that can be distributed in sets to tell a story (Korea Press Foundation, 2015, p. 14). Youth perceive card news to cover only light, fun stories, but they would like to consume more serious news in similarly shareable formats. One student cited an example of a card news story posted by a Korean news outlet about a global LGBTQ rights social media campaign. It was a lighthearted story about global rights, but failed to mention the lack of LGBTQ rights in Korea, a highly debated local issue.

## 2. KEY FINDINGS: A SOUTH KOREAN CASE STUDY



Youth focus group participant

Not only are chat users distributors, they are also commonly synthesizers of the news and information they distribute. A university student told us, “Someone is bound to ask for a summary, and another person who has actually read it provides it manually.” Ordinary people are determining what’s newsworthy in an article and ultimately what key messages from news will propagate throughout the chat ecosystem. Chat apps are enabling a significant shift in roles and authority, particularly if “a person like yourself” continues to be perceived as more trustworthy than an academic or technical expert on a subject (Edelman, 2017).

Together these point to a dilemma: Even as newsrooms and journalists seek new ways to leverage chat for news production and distribution, millions of ordinary people have become the main drivers of news and information flows through chats, which journalists and news organizations can’t easily track.

One way professional journalists can regain authority over the creation and spread of quality news information is to experiment with new formats designed for chat interfaces and environments. In the near term, this may mean co-branding emoji packages, using animations for storytelling, or packaging stories into episodic formats that can be consumed quickly in small pieces. Newsrooms and journalists must consider ways to protect the integrity of their content on these platforms, such as creating watermarks or other branding to signal provenance or partnering with platforms to develop mechanisms to “lock” their content. In the longer term, journalists may consider tools that automatically translate foreign news stories and conversations across users in a group chat, suggest news based on location, automatically summarize articles, or match users with news based on past behavior.

Journalists in South America are also developing innovative new models that leverage the unique aspect of chat apps to enable users to become information verifiers. La Silla Vacía in Colombia is experimenting with their WhatsApp Detector, a new model to cultivate factual information in chat apps. WhatsApp users can submit screenshots of chat conversation to La Silla Vacía’s WhatsApp account for fact checking. Once complete, the journalists ask the user to forward the corrected information to their contacts—and send a screenshot to prove they shared the correct information. About 90 percent of requests they’ve checked turned out to be untrue. The effort signals a future in which users can access trained journalists and tools directly in chat to help them verify the news they consume (Serrano, 2017).

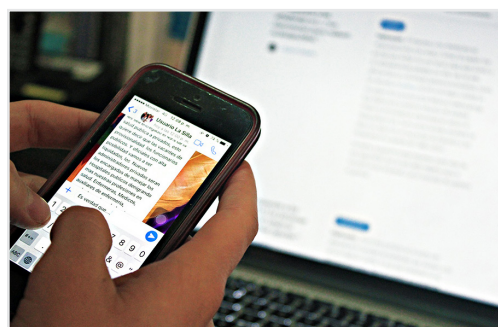


Image: La Silla Vacía

## 2. KEY FINDINGS: A SOUTH KOREAN CASE STUDY

In Thailand, Peerapon Anutarasoat of the Thai News Agency (MCOT) runs the “Sure and Share Center,” which seeks to make sure its audience “makes sure of content before sharing.” Anutarasoat receives tips about potential hoaxes via a channel on LINE, the most popular chat app in Thailand; then he and his team perform fact checks and produce short videos (aired on national television, then uploaded to YouTube and Facebook), news articles, and infographics to convey their findings. Due to the virality of hoaxes, Anutarasoat says he is often forwarded the same hoax dozens of times within a short period. Anutarasoat then replies to each user on LINE with a text message containing a headline, a summary of the fact check, and a link to the YouTube video for each topic. In addition, Anutarasoat creates infographics branded with his news agency’s logo. By sharing an infographic and short message, instead of a link to a long text article, Anutarasoat is speaking the visual language of chat app users, increasing the likelihood that his work is shared.

In Taiwan, volunteer developers and fact-checkers have created a LINE bot that draws from a database of fact checks to algorithmically “answer” questions posed to it by LINE users.

Interviewees also voiced awareness of the dilemma that chat app closed architectures pose for news: Users readily add friends and family members and follow brands they like, and thus tend to see only information from sources with similar interests and views. Korean students are well aware of the dangers of being caught in a filter bubble. In fact, they’re looking for digital systems to alert them when they’re in the midst of one. They’re seeking technological solutions that let them see the way others are thinking.

Some students suggested features such as embedded links to content that people unlike you are viewing. One young journalist thought that an algorithmically curated, highly personalized news feed could coexist with a bot that offers such articles.



An infographic produced by the Thai News Agency (MCOT) in 2016, debunking an online hoax that then President-elect Donald Trump granted U.S. citizenship to former Thai Prime Minister Thaksin Shinawatra. The hoax used old, unrelated photos of Trump and Thaksin to support the rumor.

“Facebook’s biggest strength is that it allows us to consume news within human relationships, but ... this amplifies the filter bubble [확증편향, translated as confirmation bias], which means that it lets me see the world as I wish. I think we need something that can make up for this.”

— media student

### KEY QUESTIONS FOR CONSIDERATION:

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**1. HOW CAN JOURNALISTS GET AHEAD OF THE INFORMATION NEEDS OF USERS IN A CLOSED NETWORK?**

Scanning and tracking user preferences are much more difficult within the chat environment. Journalists could become trendsetters for new formats designed for chat, and develop the skill set to predict information needs before they are fulfilled by users.

**2. HOW CAN JOURNALISTS BRING MORE ORDER TO THE INTENSIFYING INFORMATION DISORDER WITHIN CHAT APPLICATIONS?**

Readers will need to understand the spectrum of news trustworthiness to better evaluate the information they receive. For instance, the La Silla Vacía group uses a tagging system to code its WhatsApp Detector, labeling the information as “True,” “False,” “True but...,” “Debatable,” “Rushed,” “Exaggerated,” or “Misleading” (Serrano, 2017). Opening up these tags to readers will help them build their own capacities to assess information consumed in chat apps.

**3. WHAT ROLE SHOULD CHAT APPS, NEWSROOMS, AND JOURNALISTS PLAY IN BURSTING FILTER BUBBLES?**

Bots and algorithms can play a significant role, but the key for establishing trust is transparency about the origin of information and when a bot is being used.



## 2. KEY FINDINGS: A SOUTH KOREAN CASE STUDY

### B | CHAT APPS ARE CHANGING HOW NEWS IS PRODUCED

“**Newsrooms are software companies that can be 100% distributed. There still are headquarters but I'd like to get to a place where reporters don't have to report to work physically, because you end up getting judged by the input of your time, rather than the output of your work.**”

– foreign correspondent

We found that chat apps are now prevalent throughout the news production cycle, and that newsrooms and journalists are constantly experimenting with new ways to use this medium for content creation. Chat apps are being used to build networks of journalists that fact-check stories in real time and are willing to collaborate to ensure that information is valid. A foreign correspondent told us, “I talk to the competition. Because we're really all part of the same press corps, we analyze what's going on based on whatever we're seeing and then we pile on as necessary.” One young journalist said, “Due to the increasing fact checks, I noticed how candidates on TV soon started to lie much less than before. I think that Kakao changed not only the way the media responds to the public, but also the whole communication method and channels.” These practices were especially common during the recent political scandal in Korea, which amplified a lack of trust in government and the news. A freelance foreign journalist told us, “There's a culture of distrust for anything put out in a press release ... especially if the government said it.”

Projects such as [Electionland](#), [Documenting Hate](#), and [CrossCheck](#) are examples of how collaborative fact-checking is evolving in the West within chat-based platforms. Slack has become a hugely popular workstream collaboration solution that is intimately integrated into the news gathering process within [individual newsrooms](#), but also [across newsrooms](#). Over the couple months Electionland was live, over 62,000 messages were sent into 194 channels in Slack among 1,000+ journalists and technologists. Historically, reporters might keep research secrets within their own newsrooms until they publish, but everyone in Electionland had equal access to all information in real time over Slack. In total, more than 120 stories were produced as a result of this collaboration — many on the day of the election when problems could be addressed.

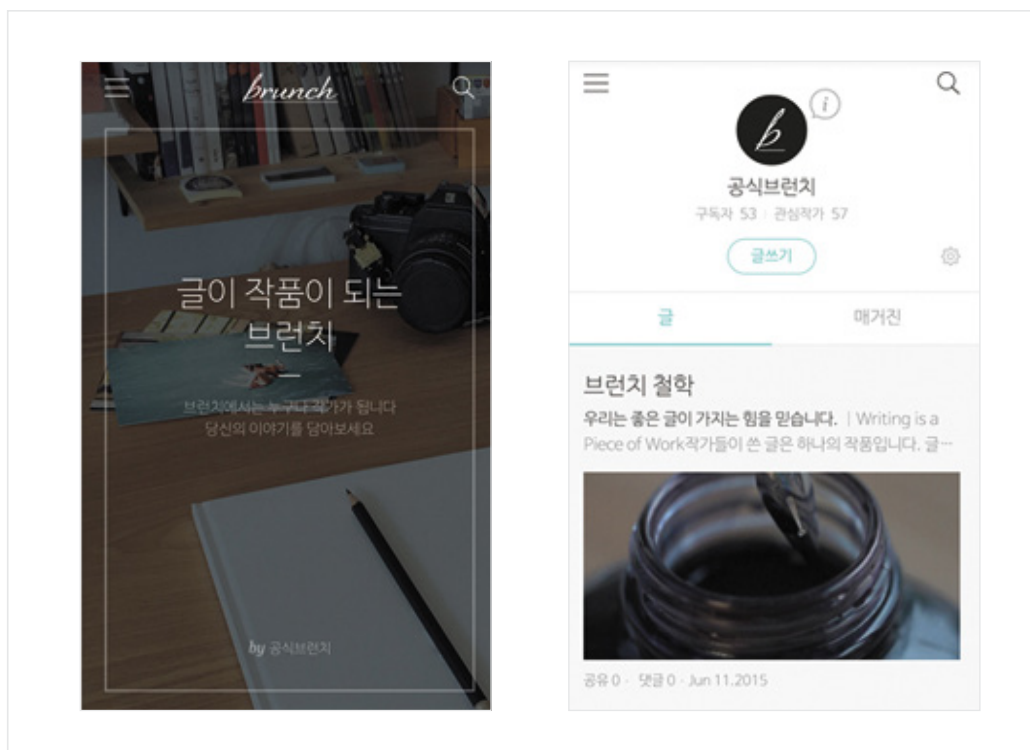
Journalists can also now record, edit, and publish news all within their chat apps and smartphones. Chat apps have enabled the coordination of end-to-end news production without ever leaving the app. One interviewee described how a colleague based in China uses the popular WeChat app to record and stitch together interviews in walkie-talkie style.

## 2. KEY FINDINGS: A SOUTH KOREAN CASE STUDY

“My correspondent friend, because the quality of recording is so good on WeChat, was actually conducting interviews on WeChat, where he would record the question and they would record the answer and he would record the question, like a complete walkie-talkie conversation. You can just pull down all the audio and then you have radio quality.”

– foreign correspondent

Kakao Corporation released a micro-blogging platform, Brunch, which is an experiment that lets users write, edit, and publish articles without leaving the app. One interviewee suggested that, in the future, we might see publishing happen without ever leaving the chat window. For example, a user might type news directly into a private KakaoTalk chat and opt to publish it immediately.



Source: KakaoTalk

## 2. KEY FINDINGS: A SOUTH KOREAN CASE STUDY

Across Korea, the use of chat apps for workplace collaboration after hours has become so common that legislators are exploring creating an amendment to the country's Labor Standards Act to restrict the use of KakaoTalk messages after work hours (IFTF interview; “국정과제”서 빠진 ‘퇴근 후 카톡 금지법’...국회발(發)로 실현되나,” 2017).

These use cases are signals of a larger shift in the way institutions are organized. Other research by IFTF reveals that we are in an age of broad organizational transformation (Institute for the Future, 2012). Hierarchical organizational charts are no longer used to coordinate workflows. With the advent of the highly connected networked workforce and algorithmic coordination, work is now better viewed in engineering terms. Functions, roles, and projects can be unbundled or broken down into parts; routed to appropriate individuals or machines as tasks; and then reassembled to achieve desired outcomes.



Sources: IFTF interview; “국정과제”서 빠진 ‘퇴근 후 카톡 금지법’...국회발(發)로 실현되나, 2017

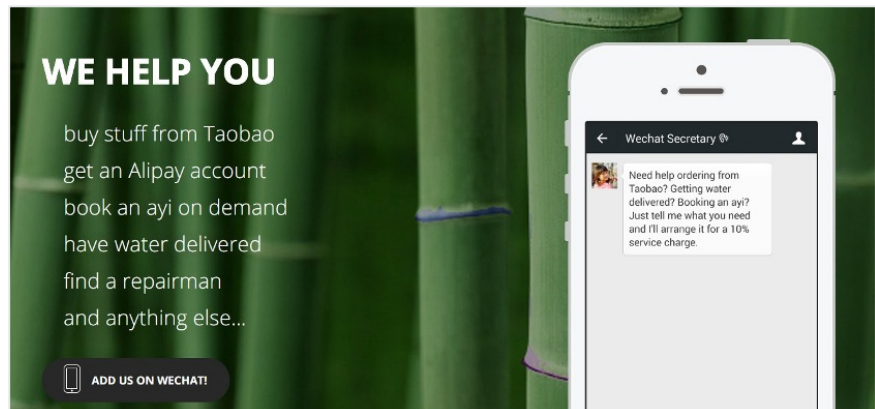
For newsrooms, it is helpful to imagine news production by its component parts, including sourcing, verification, interviewing, writing, and publishing. Humans may employ machines at any stage or push roles entirely to technology. The value of the coordinated, distributed system is that each of the parts and pieces can be built, delivered, then assembled into the final product, aided by software that can make managerial decisions, coordinate work, and ensure quality. Our interviews indicate that chat apps are already helping journalists and newsrooms coordinate news across a more decentralized workforce. A veteran local journalist with over 20 years of experience told us that KakaoTalk is today's intranet for newsrooms. Her managing editor uses KakaoTalk to issue orders, including sending direct messages (DMs) to delegate who should write stories.

One potential future this research suggests is that the newsroom will become a networked web of journalists and machine actors. Virtual assistants will serve as “[digital fixers](#)” that coordinate schedules, identify sources, and translate or parse information. Human-sourced news tips will be augmented by software that aggregates crowd data and alerts the network of anomalies. Journalists' profiles will display their credentials and their reputations built on past contributions and validity.

## 2. KEY FINDINGS: A SOUTH KOREAN CASE STUDY

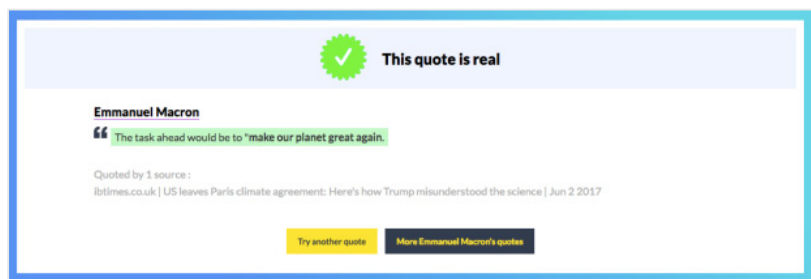
### HERE ARE A FEW SIGNALS THAT SUGGEST THIS FUTURE IS NOT FAR AWAY:

1. In 2015, WeChat Secretary launched as a service that helps foreigners find whatever they need in Beijing. The idea is simple: You add “we-secretary” on WeChat, you tell the real-life human on the other end what you need, they find it for you, and

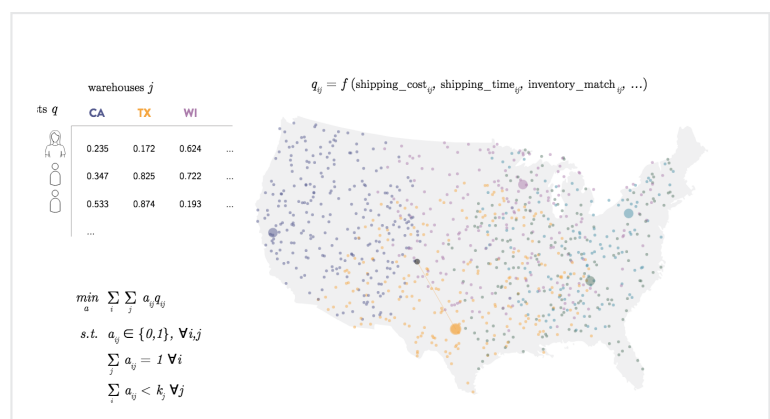


you pay a 10 percent commission charge. Today, foreign correspondents hire “fixers” to help them navigate local geography and communities of interest. In the future, we will see more “digital fixers” automatically track information and perform tasks on behalf of a human.

2. In 2017, French startup Storyzy launched a free quote verifier tool to fact-check statements in the news, hoping to nip fabricated content in the bud.



3. Stitch Fix is a U.S. subscription-based clothing company that uses algorithms to match clothing to users. Human fashion experts then hand-pick from the machine-curated set before the clothing is sent to users. In the future, we can imagine machine-curated information delivered to journalists for vetting.



### KEY QUESTIONS FOR CONSIDERATION:

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**1. CAN MORE NEWSROOMS EXIST WITHOUT A PHYSICAL LOCATION?**

The distributed newsroom could exist as a network of producers enabled by coordination technology that stitches together contributions. In this new model, journalists and editors would need to relinquish their attachment to physical workspace, co-located work, and hierarchical organizational charts. Those who embrace data-driven production will thrive.

**2. HOW CAN JOURNALISTS SUPERCHARGE THEIR CAPABILITIES BY PARTNERING WITH VIRTUAL ASSISTANTS AND ALGORITHMS THAT PERFORM MICRO-TASKS ON THEIR BEHALF?**

Winners in this model will be able to look at their work as a combination of tasks that can be rerouted to machines.

**3. WHAT SIGNALS CAN READERS USE TO DETERMINE TRUSTWORTHINESS OF INFORMATION IN AN ECOSYSTEM COMPRISING A WEB OF MANY INDIVIDUAL JOURNALISTS?**

In a distributed newsroom future, today's freelance journalist may not seem so different from staff journalists of an established brand.

## 2. KEY FINDINGS: A SOUTH KOREAN CASE STUDY

### C | CHAT APPS ARE REDEFINING THE RELATIONSHIP BETWEEN JOURNALISTS AND READERS AND CREATING NEW MONETIZATION OPPORTUNITIES

“ *I don't think newsrooms are driving conversation over chat apps very effectively. At least, not yet.*”

– foreign correspondent

Today, users do not consider chat to be a place to connect directly with newsrooms. Koreans primarily access news outside of chat through trending features on traditional social networking sites (Facebook or Twitter) or aggregators such as Daum or Naver, Korea's dominant web search and content portals that license content from news providers. Koreans who access news from Daum and Naver are less likely to know the news brand, according to the 2016 and 2017 Reuters reports (Newman et al., 2016 & 2017).

While the social nature of chat apps creates significant challenges for institutions such as newsrooms to engage authentically and maintain their brand, it also creates new opportunities for individual journalists to build closer relationships with readers and insert themselves directly into their conversations. To gain access to chat networks and build trust, reporters must pay attention to the nuances of local friending etiquette and make their intentions clear. For example, WeChat users in China commonly add friends by scanning personal QR codes—and it matters, when the two phones meet, whether yours is on the top or the bottom (Renner, 2016). In China, individual reporters have gained massive followings on their personal channels, offering reporting and commentary that doesn't appear in the traditional, often state-owned or state-funded, media that employ them. Developing communities of users will also help journalists cultivate sources and information. For example, Newstapa, a nonprofit investigative journalism organization, is already leveraging the collective intelligence of chat networks for production by inviting qualified citizens to apply for membership in fact-checking chat groups.

## 2. KEY FINDINGS: A SOUTH KOREAN CASE STUDY



Source: newstapa.org

Crowdsourcing models will not only reshape news gathering and verification, but enable new funding models for journalism. While today only 12 percent of Koreans pay for online news (Newman et al., 2017), journalist-led models may yield different results if readers feel they have a personal connection to the journalist and the story. In 2015 Daum, the web portal owned by Kakao Corporation, launched a news crowdfunding platform called Story Funding that allows individuals to contribute funds to content creators. In early 2017, Kakao streamlined the service by allowing users to log in with their KakaoTalk accounts, directly connecting people with funding opportunities via chat.

Park Sang-kyu—a freelance Korean journalist who, over about three years, has successfully funded 11 projects on Story Funding totaling over 857 million Korean won (US\$760,000)—has said that “it is possible to produce reports that actively reflect readers’ opinions, thanks to the new platform that allows for active communication between readers and writers” (“[스토리펀딩](#)” [[“Story Funding”](#)]; Han, 2015).



### KEY QUESTIONS FOR CONSIDERATION:

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**1. IF INDIVIDUAL JOURNALISTS WITH A NAME AND A FACE HAVE AN ADVANTAGE OVER NEWS BRANDS IN TODAY'S MEDIA LANDSCAPE WITH REGARD TO TRUST, WHAT ROLE DO NEWS COMPANIES HAVE IN THE NEW ECOSYSTEM?**


Journalists are likely to rely on newsrooms for support such as legal resources, technical infrastructure, and legitimacy if their reporting is challenged (Kreiss & Brennen, 2016). Newsrooms could also offer ways to connect journalists to each other, or may partner with chat app companies to provide reputation and credibility features to amplify a journalist's personal brand.

**2. HOW SHOULD TRAINING EVOLVE FOR THE DISTRIBUTED JOURNALIST?**

A 29-year-old Korean journalism graduate who is starting out as a freelancer said that training and resources for digital journalism tend to focus on optimizing for search and discoverability, “but they aren’t appropriate to make communities”—a skill he sees as vital for journalists in the future. While journalists are skilled in developing relationships and trust with sources, doing so in an online, quickly moving chat environment will require new approaches. Further, leveraging information accessed in private chat spaces for an article or story may require new ethical guidelines.

**3. WHAT OTHER SIGNALS SHOULD BE INTEGRATED FOR READERS TO DETERMINE THE VALUE OF THE CONTENT AND ENCOURAGE THEM TO PAY FOR NEWS?**

Readers will need to build awareness and skills for identifying trustworthy and quality news sources across their chat conversations—a challenge since many users are members of hundreds of groups and have chat contacts that they don’t actually know. Resources such as journalist reputation scores will help, but there are opportunities for newsrooms and journalists to educate readers further.



# 3.

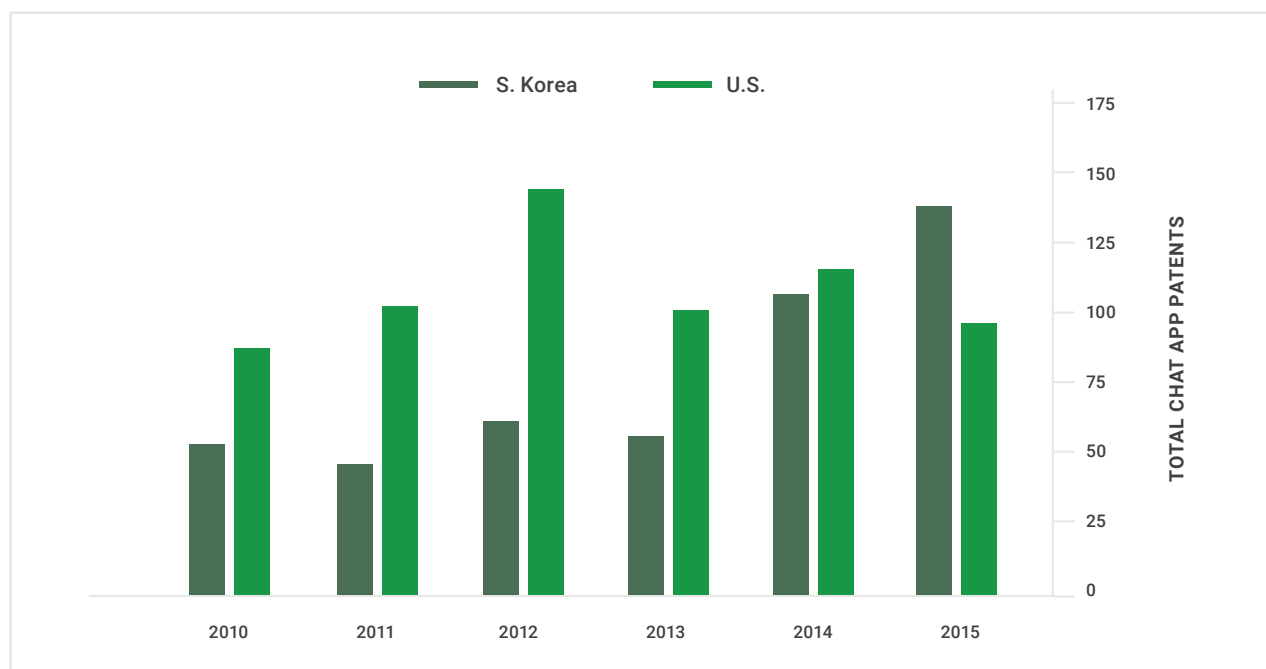
## A Look Ahead

As adoption of chat apps continues to grow worldwide, users are playing a greater role than ever in the way news is produced, distributed, and consumed, inexorably reshaping the information ecosystem and the role of traditional news organizations. Journalists are no longer the gateway of quality information, and machines offer more effective ways to deliver and signal trustworthy news.

Global patent filings related to chat apps are on the rise, and patents related to social networking have started to decline, signaling future growth and development in the messaging space. The number of global chat app patent filings has exceeded 1,400 in years 2010 through 2015 (the most recent years available for analysis). The most dramatic growth in filings is for patents tied to commerce, virtual assistants, and news, supporting the shift of chat apps into new territories. The annual number of patent filings related to social networking increased in 2010 through 2012, but has since declined.

### 3. A LOOK AHEAD

Examining the patent filings by country reveals that the U.S., China, and South Korea are by far the largest players in this space. The majority of other countries file through the World Intellectual Property Organization, and the sum total are roughly on par with China. In the 2010–2015 year timeframe, inventors in the top countries were responsible for a total of 654 (U.S.), 467 (Korea), and 195 (China) filings around chat apps. In 2015, Korea surpassed the U.S. as the number one country for chat app patents. If this trend continues, Korea will solidify its position as the world leader in chat app innovation, outstripping the U.S. and China by a wide margin in the next few years.



Source: Thomson Reuters; Quid

Furthermore, the distribution of companies that hold these patents in the three countries varies significantly. In the U.S., patents have been filed by a slew of companies: Facebook, Apple, Google, Kik, Microsoft, Skype, and a handful of others. In Korea, Naver and Kakao are the only two patent holders, and in China, the vast majority of patents are held either by Baidu or Tencent. The low variety of patent holders in Korea and China points to the very concentrated industry in these markets, and suggests continued dominance by these key players moving forward.

Patents around reading user data to determine topics presented to the user point toward empowering virtual assistants to help users discover news. Facial recognition and biometric reading technologies are among other emerging scopes for patents. This development indicates the potential for deeper engagement and two-way communication with users of chat applications. The ability to monitor a user's biometric responses to reading a certain message or article opens up a powerful potential pipeline for feedback.

### 3. A LOOK AHEAD

The evolution of technology within the chat ecosystem will present new opportunities for journalism, but risks include reduced quality of information and continued shift of authority from professional journalists to individuals. Our case study suggests three main approaches for newsrooms and journalists to get ahead of the changing landscape:

**1. COLLABORATE WITH USERS TO MITIGATE INFORMATION DISORDER WITHIN CHAT APPS:**

News organizations, platforms, and users must collaborate to develop standards for identifying and classifying mis- and disinformation within chat apps. Any one actor will not be able to reduce the impact of information disorder alone.

**2. USE MACHINE WHERE POSSIBLE TO OPTIMIZE ALL ASPECTS OF NEWS:** Newsrooms should embrace the economic benefits of machines by incorporating technologies such as AI, collaborative filtering, and bots that give journalists, newsrooms, and users greater power to report, verify, and share news. For journalists, that could be automated tools to generate simple visualizations of complex information, or AI-powered bots that introduce new kinds of information to users (e.g., a bot that scans news screenshots and highlights potential false information).

**3. GET AHEAD OF THE CHANGING MONETIZATION STRUCTURE SURROUNDING CHAT APP JOURNALISM:**

Newsrooms and individual journalists should use chat app tools and technologies to help boost their reputation for distributing verified, well-sourced information within their chat groups and channels. As journalists gain increased brand awareness, they'll be able to tap into crowdfunding platforms to support their work. In an increasingly distributed news ecosystem, one potential role for news organizations is as a convener and infrastructure platform, providing legal resources, technical infrastructure, and legitimacy if individual reporting is challenged. Newsrooms may also offer ways to connect journalists to each other, or partner with chat app companies to provide reputation and credibility features to amplify a journalist's personal brand. Currently, traditional news organizations are disadvantaged in the chat app environment, as their content is shared through chat apps in the form of non-monetized screen grabs. News organizations must develop chat app-native monetization strategies and take steps to build their brands and protect their content. Some options include bundled emojis or exclusive content partnerships with brands/celebrities to create frictionless, value-add products and services for chat app users.

The future quality of information within these closed ecosystems depends on how newsrooms, platforms, and individual journalists get ahead of their evolution. While the chat ecosystem comes with its challenges, the Asia Pacific has shown there are opportunities for both newsrooms and journalists to thrive.

# Institute For The Future

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## Google News Lab

Google's mission is to organize the world's information and make it useful and accessible to everyone. Quality journalism is critical to that mission, providing accurate information to people on important issues when it matters the most. The [News Lab](#) aims to ensure that the interests, needs, and concerns of journalists are surfaced and reflected in the products and services Google offers as a company

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