



Affordances, movement dynamics, and a centralized digital communication platform in a networked movement

Francis L. F. Lee^a, Hai Liang^a, Edmund W. Cheng^b, Gary K. Y. Tang^c and Samson Yuen^{b,d*}

^aSchool of Journalism and Communication, Chinese University of Hong Kong, Shatin, N.T. Hong Kong; ^bDepartment of Public Policy, City University of Hong Kong, Hong Kong; ^cDepartment of Social Science, Hang Seng University of Hong Kong, Hong Kong; ^dDepartment of Political Science, Lingnan University, Hong Kong

ABSTRACT

Much contemporary social mobilization is digitally enabled. Digital media may provide the communication platforms on which supporters deliberate movement goals, share information, discuss tactics, and generate discourses in response to ongoing happenings. Yet digital media's capability to serve these functions should depend on platform-specific affordances and movement dynamics. Based on such premises, this article examines how the online forum LIHKG became the central communication platform in the Anti-Extradition Bill Movement in Hong Kong. Empirically, digital media and content analysis data help establish the forum's prominence during the first few months of the movement, while analyses of protest onsite survey data show how the use of LIHKG systematically related to several movement-related attitudes among the protesters. The article highlights the affordances and movement dynamics that allow the forum to play the role. It contributes to understanding the factors that shape the role and impact of digital media platforms in social mobilization.

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On 9 June 2019, one million Hong Kong citizens marched on the street to protest against a proposed extradition bill that would allow the Hong Kong government to extradite suspects to mainland China. It marked the beginning of a protest movement that extended into the year 2020. The movement featured a large number of often-innovative actions, ranging from airport sit-ins and Baltic-inspired human chains to political consumption and lunchtime flash mobs. In terms of scale and significance, the Anti-Extradition Bill (Anti-ELAB hereafter) Movement clearly surpassed the Umbrella Movement in 2014 (Cheng et al., 2021).

The Anti-ELAB Movement exhibited certain features of networked social movements or connective action (e.g., Anduiza et al., 2014; Bennett & Segerberg, 2013; Castells, 2012). It was apparently leaderless and decentralized. Many actions were organized

CONTACT Francis L. F. Lee ✉ francis_lee@cuhk.edu.hk 📧 School of Journalism and Communication, Chinese University of Hong Kong, Shatin, N.T., Hong Kong

*Present address: Department of Government and International Studies, Hong Kong Baptist University, Kowloon Tong, Hong Kong

from below and enabled by information communication technologies. Among the various digital media platforms, the Reddit-like forum LIHKG attracted much public attention. For several months, LIHKG had seemingly become the central communication platform for movement supporters to share information and discuss their goals and strategies. How can we understand the role and impact of LIHKG in the movement?

Put generally, digital media are sometimes treated as the organizational substitute for decentralized networked movements. Numerous studies have explicated how digital media can facilitate action organization and coordination (e.g., Caraway, 2016; Donovan, 2018). But can digital media also facilitate within-movement deliberation and contribute to the adoption of movement tactics and discourses among supporters? What are the factors that shape the capability of digital platforms to facilitate within-movement communication?

This article contends that the capability of a digital media platform to play certain roles is shaped by both platform-specific affordances and movement dynamics. The following begins by explicating the theoretical arguments and conceptual underpinnings of the study. Background of the Anti-ELAB Movement and characteristics of the online forum LIHKG are then introduced. Based on data from digital media analysis, content analysis, and protest onsite surveys, the empirical analysis establishes the prominence of LIHKG and illustrates the relationship between LIHKG use and several movement-related attitudes – acceptance of radicalism, feelings of solidarity, and agreement with emerging movement discourses and tactics. The concluding section discusses the implications of the findings.

Literature review and conceptual considerations

Digital media in social movements

Scholars have debated about the extent to which digital media can facilitate movement mobilization or even transform the fundamental characteristics of social movements. While influential works by Castells (2012) and Bennett and Segerberg (2013) put forward conceptualizations of new kinds of ‘networked movements’ or ‘action logics,’ critics have pointed to the limitations of digital media and the continual significance of formal organizations (Schradie, 2019). Flesher Fominaya (2020), in particular, drew the distinction between the moment of intensive mobilization and social movement as a long-term phenomenon. She illustrated how social organizations remain crucial for sustaining a movement after the peak of mobilization.

However, many contemporary protest campaigns are indeed characterized by digitally enabled spontaneous participation and personalized actions (Cheng & Chan, 2017; Lee & Chan, 2018). In the absence of leadership by a formal organization, one basic challenge for protesters is how they can organize without organization (Shirky, 2008). Bennett et al.’s (2014) work on Occupy Wall Street, for instance, pinpointed the role of stitching technologies – especially Twitter – in the processes of production, curation, and dynamic integration in peer production. Since then, studies have documented the role of digital media in action coordination in various cases (e.g., Caraway, 2016; Donovan, 2018; Tsatsou, 2018).

Action coordination, however, is only one aspect of a movement. To mobilize people to act and to maintain participants' solidarity, one needs to create meanings and communicate information. Bennett and Segerberg's (2013) theorization of the logic of connective action highlighted the role of simple and inclusive personal action frames. But other scholars have argued that, while personal action frames can mobilize the already outraged, they may be less effective in persuading the hitherto unconvinced (Flesher Fominaya, 2020). Collective action framing and other kinds of discursive work cannot be neglected.

Indeed, even in the digital environment, movement goals and collective identities have to be defined and negotiated through producing common codes and texts (Kavada, 2015). Several studies have documented the role of digital and social media in the construction and evolution of collective identity behind a movement (Khazraee & Novak, 2018; Mercea, 2018; Milan, 2015). Besides, the outrage driving protest participation has to be communicated across a wider public (Workneh, 2020). Accurate information about the movement and concurrent happenings have to be transmitted amidst an overabundance of materials. Responses to ongoing events and the actions of authorities have to be generated and communicated. Failure to do so can result in a strategic impasse that adversely affects the sustainability of a protest movement (Tufekci, 2017).

Although it seems intuitive to claim that digital media serve a communicative function, the ability of digital media to serve as the central communication platform for a decentralized movement cannot be taken for granted. This article contends that the role and impact of digital media are dependent on platform-specific affordances and protest dynamics.

Platform affordances

Affordance refers to how the material and design features of a technology request, demand, allow, encourage, discourage or refuse certain actions rather than the others (Davis & Chouinard, 2017). Digital and social media's potential to aid protests can be understood in terms of how they reduce the cost of information transmission and facilitate the maintenance of weak ties. Other scholars have noted additional affordances that help explain social media's role. Khazraee and Novak (2018), for instance, argued that social media are useful for the construction of collective identity because they have the affordances for discourse and affordances for performance (also see Milan, 2015). Pearce (2015) discussed how social media's affordances may also facilitate authoritarian control and repression of critics.

However, instead of seeing all digital media platforms as sharing the same features, others have called for attention to platform-specific affordances. As Pond and Lewis (2019) stated, researchers should 'stop assuming that all internet technologies... obey the same logic' (p. 216). Twitter, for example, works well as a stitching technology because of the hashtag and @mention functions (Tufekci, 2017). Comparatively, it is more difficult for a Facebook user to track all discussions surrounding the same topic on the site. Hence it is more difficult for Facebook users to engage in effective curation and dynamic integration of movement-related contents.

For the present study, which focuses on whether digital media can serve as the central communication platform for a social movement, one key issue to consider is whether a

digital platform has the affordances that allow and encourage participants to speak to the movement collective instead of only a small group of participants. One recurrent concern among political communication scholars is the extent to which social media lead to the formation of online echo chambers (Sunstein, 2017). Although some researchers have questioned the echo chamber thesis (e.g., Dubois & Blank, 2018), social media sites such as Facebook and Twitter does symbolize what Castells (2001) called networked individualism. That is, users are at the center of their own networks and have constant access mainly to the materials circulating within their networks. In contrast, other online platforms, such as certain discussion forums, are organized in ways so that user interfaces are not personalized, and each user is just part of a larger community. Collective deliberation should be more likely to arise if the technological features of a site encourage users to constantly appeal to the community at large instead of to specific niches within the broad community.

Movement dynamics

Affordance only refers to the potentiality embedded in the materiality of a technology that may or may not be leveraged (Earl & Kimport, 2011). A digital platform may be used differently at different stages of a protest movement, resulting in different degrees and types of impact (Hensby, 2017). Therefore, one important factor shaping the impact of digital media would be the conditions and dynamics of the ongoing movement itself.

Put generally, every protest movement arises against a set of background conditions. As the movement unfolds, it can exhibit cyclical patterns of ups and downs (Tarrow, 1998). The trajectory of a movement is often shaped by the strategic interactions among actors and constituted by recognizable mechanisms and processes (McAdam et al., 2001). A movement can also be significantly influenced by unexpected events (Walsh, 1981). Digital communication's role and impact should vary depending on where, when and how it enters the movement dynamics (Wang et al., 2016).

The above argument can be illustrated by a contrast between the Umbrella Movement in Hong Kong and the Sunflower Movement in Taiwan, both occurring in 2014. Lee and Chan (2018) argued that digital media started to play an important role in the Umbrella Movement when the unexpected firing of tear gas by the police on the first day of occupation disrupted the protest leaders' plan. The contingent event created the opportunity and need for protesters to improvise. Digitally enabled improvisation led to the emergence of multiple occupation sites, which aggravated the pre-existing distrust and internal conflicts among different factions within the movement (Yuen, 2018). In contrast, the Sunflower Movement did not experience the same spatial split of the occupation. Besides, despite the presence of internal tension, pre-existing trust among movement actors was relatively high (Ho, 2019). Digital media played various roles in the movement, but largely without introducing significant forces of decentralization into it (Cheng & Chen, 2016).

The above comparison suggests that digitally enabled within-movement communication can be more effective when there is a high level of pre-existing trust and a lack of features that tend to split the movement. But these are certainly not the only factors that can shape the role and impact of digital media. It is beyond the scope of this article

to theorize the range of movement conditions and dynamics (and platform affordances) that matter. What the above discussion provides are the theoretical principles based on which we examine the present case: online forum LIHKG in the Anti-ELAB Movement in Hong Kong.

LIHKG in the Anti-ELAB movement

The Anti-ELAB Movement was triggered by the Hong Kong government's proposal to amend the Fugitive Ordinance so that suspects seeking refuge in Hong Kong can be extradited to places without existing bilateral agreement with the city, including mainland China. The proposal drew huge public opposition. On 9 June, three days before the bill's second reading in the Legislative Council, one million citizens joined a protest organized by the Civil Human Rights Front (CHRF). On 12 June, protesters surrounded the Legislative Council, clashed with the police, and forced the cancellation of the meeting. The government's decision to suspend the bill on 15 June did not pacify the protesters. Increasingly violent police-protester clashes and serious police misconduct led to a shift of the movement's focus to police violence. Protesters also incorporated democratization into the movement's major demands (Lee et al., 2019).

The Anti-ELAB Movement was widely regarded by the media and the participants as having no central leaders (Ag, 2019). While the CHRF was responsible for organizing several large protest marches, a wide range of other actions, such as airport sit-ins and a campaign to place newspaper ads around the world, were often organized by unknown individuals and groups with little experience in protest organization.¹ Commentators and activists used the phrase *mou-daai-toi*, which literally means 'no big stage,' to describe the movement. Protesters also used 'be water,' a phrase from late martial arts star Bruce Lee, to make sense of the innovativeness and fluidity of the protests. Similar to other networked social movements, the Anti-ELAB Movement raised the question of how organization and coordination can be achieved without central leaders.

Many commentators paid attention to the role of digital media. The mobilizing power of online alternative media and Facebook in Hong Kong have long been documented (Leung & Lee, 2014; Tang & Lee, 2013). But in the Anti-ELAB Movement, the role of messaging app Telegram and online forum LIHKG received particular recognition by journalists and the protesters themselves (Yeo, 2019). On Telegram, numerous movement-related groups and channels were established, with the largest ones having tens of thousands of participants (Hill, 2019). Protesters can participate in the planning and organization of actions by opening or joining relevant groups and channels.² Arguably even more prominent was the online forum LIHKG, which was established only in 2016. In a newspaper-conducted poll during the protest on 1 July, 55% of the respondents regarded LIHKG as the most influential medium in the movement (Apple Daily, 2019).

Following earlier conceptual discussions, we can try to identify the platform-specific affordances and movement dynamics that can help explicate the prominence, role, and impact of LIHKG in the Anti-ELAB Movement. For affordances, instead of having a personalized interface for each user, LIHKG is a large virtual community space. It has 41 'channels' for topics ranging from computer software to love affairs. Throughout the Anti-ELAB Movement, most movement-related discussions occurred in the 'public affairs channel.' LIHKG has three 'most popular lists' – real-time, today, and this

week, through which users can easily glance through the most popular ideas on the forum. Whether a post gets onto the lists depends on other users' reactions. Hence LIHKG essentially facilitates real-time 'voting' among all forum participants.

Nevertheless, unlike Facebook or Twitter, LIHKG does *not* facilitate deliberate following of other users, and users cannot carve out their own spaces for followers to congregate. Users are therefore encouraged to continually appeal to all forum participants. There is also no system similar to Reddit's karma points that allow users to showcase their credibility or popularity. This makes it difficult for anyone to establish sustained opinion leadership on the forum. Combined together, these features should help prevent discussion to fragment into distinctive silos and enhance the platform's ability to effectively communicate collective sentiments and emergent discourses to all.

For movement conditions and dynamics, three factors are particularly pertinent to the present discussion. First, in contrast to the Umbrella Movement, the Anti-ELAB Movement exhibited a strong sense of solidarity between the moderates and the radicals. The emphasis on solidarity was codified into slogans such as 'no severing of ties' and 'going up and down together.' These slogans were often evoked to contain and manage internal debates (Lee, 2020). Solidarity is important for keeping supporters' willingness to communicate with each other and preventing the splintering of supporters into mutually hostile groups.

Second, the quick evolution of protest tactics generated a strong need for orientation. Protest culture in Hong Kong conventionally places a heavy emphasis on order and peacefulness (Ku, 2007). But in the Anti-ELAB Movement, protesters' use of force evolved from throwing bricks to bonfire, petrol bombs, vandalizing of targeted shops and vigilantism (Lee et al., 2021). Movement supporters needed to make sense of the tactics and the trend of radicalization. Given the lack of central leaders, a recognized central communication platform became very useful to satisfy supporters' need for orientation.

Third, similar to many contemporary networked movements (Flesher Fominaya, 2020), leaderlessness was treated not only as a fact but also as an ideal. In Hong Kong, the valorization of 'citizen self-mobilization' has a history stretching back to the half-million strong 1 July protest in 2003 and continuing through other major protests over the years, including the Umbrella Movement (Lee & Chan, 2018). The atmosphere of LIHKG discussion is consistent with many movement supporters' preference for bottom-up and spontaneous participation.

In sum, LIHKG's architecture allows efficient surveying of popular sentiments and emerging discourses, renders domination by opinion leaders difficult, and prevents the splintering of discussion. Meanwhile, movement supporters exhibited an emphasis on solidarity, a need for orientation, and a preference for bottom-up participation. Our argument is that these features combined to propel LIHKG to become the movement's central communication platform, and the following analysis offers empirical evidence to substantiate the role and impact of LIHKG.

Analyzing the prominence and impact of LIHKG

Data analyzed below comes from three sources. First, we scrapped all LIHKG posts between 1 June and 31 December 2019 and developed a program to capture the basic characteristics of the posts, such as date and time of posting, identity of the posters, etc. Second, a manual content analysis was conducted on 6180 posts between 9 June

and 31 December 2019. Methodologically, thirty posts were selected from each day in the period through random sampling. The coding scheme focuses on the presence or absence of specific themes or content elements in the posts. Two trained assistants conducted the coding. Inter-coder reliability scores of the variables – based on the coding of 380 posts randomly selected from the sample – were either above 0.80 in Scott's *pi* or above 0.95% of agreement.

Third and most importantly, the analysis draws upon onsite surveys the authors conducted in 10 large-scale protest events between 1 July and 28 September. Onsite surveys are a popular method in the study of collective actions (Giugni & Grasso, 2019). Followed established methods (Walgrave & Verhulst, 2011), we sampled by using the spatial distribution of the protesters as the sampling frame and a systematic sampling procedure to select individual respondents. Concretely, we distributed interviewers into different locations along the marching route or throughout the rally site and asked them to follow a designated procedure to recruit respondents (e.g., in protest marches, the interviewers stayed at their location and invited every tenth person walking by to participate). The targeted respondents filled out the questionnaire either online (through a QR code) or using paper and pencil. Nevertheless, a few protests in the movement were disapproved by the police and were therefore technically illegal and had higher risks of clashes. We had to forego representative sampling in those cases. Instead, we dispatched a small number of helpers to distribute leaflets onsite and invite participants to complete the questionnaire online. In any case, participation was voluntary. The data sets in use contained no personal information about the protesters (see Yuen et al., 2019, for further methodological discussions of the onsite surveys).

Sample sizes of the surveys used in this article are shown in Table 1 in the next section. They varied substantially depending on the size of the protests on the day, spatial features of the protest routes/sites, and the number of assistants available. Response rates were above 80% for surveys following the more conventional sampling method.³

The digital media data are used to reconstruct the pattern and amount of communication activities on LIHKG during the movement. Content analysis data help illustrate certain basic characteristics of the discussion contents. Together with protest onsite survey data showing protesters' media use, the first part of the analysis below aims at substantiating the prominence and communicative role of LIHKG during the movement.

Then, the protest onsite survey data are further analyzed to demonstrate how the use of LIHKG relates to protest attitudes among protesters. Four hypotheses are to be tested. First, as noted earlier, the Anti-ELAB Movement was marked by a trend of radicalization, and movement supporters exhibited a significant degree of acceptance of

Table 1. Protesters' movement information sources.

	7/1	7/21	7/27	8/4	8/11	8/18	8/25	8/31	9/8	9/15	9/28
Traditional media	3.75	3.69	3.72	3.78	3.67	3.78	3.78	3.81	3.56	3.73	3.71
Online media	4.29	4.46	4.76	4.76	4.75	4.71	4.71	4.77	4.71	4.74	4.79
Facebook	4.21	4.20	4.61	4.50	4.52	4.43	4.43	4.45	4.49	4.45	4.47
Instagram	3.37	3.25	3.43	3.49	3.51	3.50	3.66	3.65	3.45	3.62	3.09
WhatsApp	3.59	3.50	4.12	3.89	3.91	3.93	3.91	3.81	3.84	3.86	3.80
Telegram	2.68	2.92	3.42	3.45	3.87	3.43	3.76	3.86	3.79	3.98	3.75
LIHKG	3.57	3.79	4.18	4.16	4.42	4.13	4.21	4.37	4.29	4.32	4.09
<i>N</i>	1169	680	235	1272	636	806	372	527	337	911	402

Notes: Entries are mean scores on a five-point scale from 1 = no to 5 = frequently.

radicalism (Lee et al., 2021). Such acceptance should be based on how movement supporters articulate and communicate the justifiability of radical tactics. If LIHKG constituted a central communication platform for the movement, one can expect LIHKG use to relate to acceptance of radical actions (*H1*). Second, although an emphasis on solidarity emerged as the movement began, solidarity needed to be maintained over time through communication. We expect LIHKG use to relate to stronger feelings of solidarity (*H2*). Third, as the movement went on, activists articulated new discourses and developed new tactics in response to ongoing events. LIHKG should be instrumental in developing and communicating such emerging discourses and tactics. We expect frequent LIHKG users to agree with emerging movement discourses (*H3*) and tactics (*H4*) to larger extents.

Use and content of LIHKG

On the prominence of LIHKG, the first point to note is that communication activities on the forum indeed surged as the movement began. Figure 1 shows the numbers of threads and comments on LIHKG's public affairs channel in the period. While there were only 565 new threads and about 12,000 comments per day between 1 and 8 June, the figures jumped to 2218 and 70,000 for the rest of June and grew further to more than 2800 and 110,000 in July and August. Although the numbers dropped afterwards, the amount of communication activities between September and November was still comparable to that in June.

The increased amount of communication activities did not merely reflect increased activities by existing users. The body of users was quickly expanding. Our data showed that, while the forum had on average 3439 newly registered users per month between January 2017 and May 2019, the figure jumped to 9791 in June 2019, and then further to 14,519 and 11,832 in July and August 2019, respectively. In addition, consistent with our earlier argument that it is difficult to establish sustained opinion leadership on LIHKG, the online discussion was not dominated by the same group of users over time. We created lists of top 20 users in each month between June and December in terms of likes received, comments received, and number of unique user replies received. Only one user appeared in the top 20 users lists in four of the seven months, and two users appeared in the lists in two months. All others got into the top 20 list of only

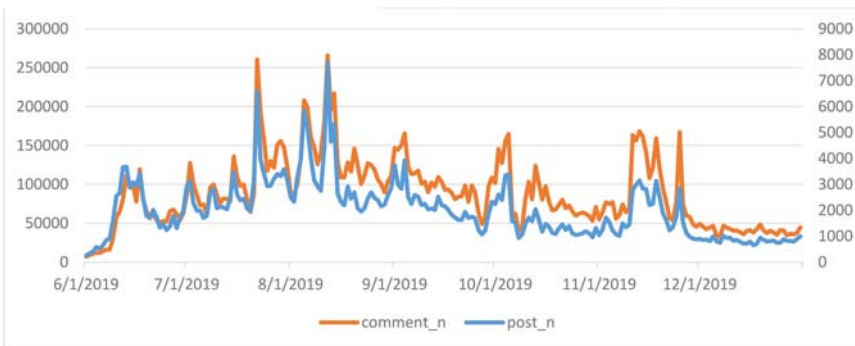


Figure 1. Daily number of comments and posts on LIHKG, 1 June to 31 December 2019.

one month. That is, almost no users could continually occupy the role of ‘top opinion leader’ in the forum.

Numbers of new users cannot fully represent the extent of forum usage because registration is not required for reading posts. Information about movement participants’ use of LIHKG is available from the protest onsite surveys. Table 1 summarizes the descriptive statistics of a set of media use items. Each analyzed survey asked the respondents how frequently they used seven types of channels as sources of movement-related information: (1) traditional media, (2) online media, (3) Facebook, (4) Instagram, (5) WhatsApp, (6) Telegram, and (7) LIHKG. Answers were registered with a five-point scale (1 = no; 5 = frequently).

In the July 1 onsite survey, online media and Facebook were the most frequently used information sources, followed by traditional media, WhatsApp, and then LIHKG. Telegram ranked bottom. By 27 July, the mean score for LIHKG has risen to 4.18. It ranked only after online media and Facebook. Into late August, the mean score for LIHKG rose to around 4.3. Use of LIHKG among protesters has increased significantly as the movement proceeded.⁴

The content analysis results give us some insights into the discussion content. 11.5% of the coded posts involved criticisms against the Hong Kong government, the Chinese government, pro-establishment groups, or the police. 34.9% of the posts suggested actions to be taken by protesters or public figures, 2.3% involved an explicit emphasis on movement solidarity, and 5.2% discussed movement strategies or the justifiability of specific actions. Some of these percentages do not seem large as users could write about a wide range of themes or post very brief responses to daily events. But the figures do indicate that LIHKG was a platform where movement supporters articulated and expressed criticisms, suggested actions, and discussed strategies. These are the bases on which the relationship between LIHKG use and protester attitudes can be understood.

LIHKG use and protest attitudes among protesters

We can now turn to examine the relationship between LIHKG use and protest attitudes. The independent variables include the seven items in Table 1. They are used individually. Since protesters could use a range of media, it is important to see if uses of LIHKG and other media related to the dependent variables in the same way. The comparison would allow us to discern if LIHKG’s role in movement communication was unique.

Operationalization of the key-dependent variables are as follows:

Support for radical actions

In eight analyzed surveys, respondents were asked to express through a five-point Likert scale (1 = strongly disagree, 5 = strongly agree) if they agreed that: (1) radical protest tactics can force the government to listen to public opinion, (2) the combination of peaceful rallies and confrontational tactics can maximize outcome, and (3) when the government does not listen, it is understandable for protesters to employ more radical tactics. Answers were averaged to form the index (*Ms* range from 3.86 to 4.41, *S.D.s* range from 0.59 to 0.84, and α ranges from 0.52 to 0.72).

Feelings of solidarity

The surveys were conducted during peaceful protests because it was impossible to conduct surveys when clashes occurred. Therefore, feelings of solidarity, in the context of the surveys, were about how the peaceful protesters felt toward the militant protesters. It was the average of respondents' agreement (1 = strongly disagree, 5 = strongly agree) with three statements: (1) I think they are speaking for me, (2) I think we are on the same boat, and (3) I feel I am one of them (*M*s range from 4.53 to 4.74, *S.D.*s range from 0.41 to 0.57, and α ranges from 0.70 to 0.82).

Agreement with emerging discourse

While there were various emerging discourses during the movement, the discourse of 'mutual destruction,' or *naam-chaau* in Cantonese, attracted the most attention and debates. As Chan (2020, p. 100) noted, 'started off as one of many slogans in the movement, [*naam-chaau*] has since grown as a discursive marker and evolved into a keyword in the discussion and understanding of the Hong Kong situation.' Put simply, the idea of *naam-chaau* posits that if the state employs extreme measures, Hong Kong has little to lose because the city will be hopeless anyway, but China will risk serious international repercussions. Hence the movement should not back down in face of threats. In several onsite surveys, agreement with the idea of mutual destruction was captured by four Likert-scaled statements. The wordings of the statements were adjusted as the movement evolved. Examples include 'Hong Kong's situation is already too bad so that there's nothing to be afraid of if the government employs extreme measures,' and 'Beijing's loss is higher than Hong Kong's if there are extreme scenarios in Hong Kong' (*M*s range from 3.94 to 4.41, *S.D.*s range from 0.63 to 0.74, and α ranges from 0.52 to 0.78 across the surveys).

Agreement with emerging tactics

The surveys did not contain many elaborate questions about emerging movement tactics. But one of the surveys asked respondents about their views toward vigilantism, which emerged around September. Proponents argued that, given the total untrustworthiness of the police, protesters had the right and need to defend themselves by using physical force against counter-protesters when the latter initiated attacks. Respondents were asked if they: (1) accepted using physical force against government supporters, (2) agreed that 'vigilantism is the last resort when the police does not enforce the law fairly,' and (3) agreed that 'vigilantism can protect peaceful protesters.' The answers, registered with a five-point scale (1 = absolutely cannot / strongly disagree, 5 = very much can/strongly agree), were averaged to form the index ($M = 4.27$, $S.D. = 0.82$, $\alpha = 0.81$).

Multiple regression analyses were conducted to examine the hypotheses. Besides the media use variables, control variables included four demographics, two dummy variables about political affiliation, past movement participation, and participation in the Anti-ELAB Movement (Details of operationalization are omitted due to space concern). The regression was conducted for each survey separately because of several reasons. First, there were slight variations in the operationalization of some variables in the different surveys. Second, the samples did represent distinctive populations (i.e., the protesters on different days). Third, the approach allows us to check the robustness of the relationships.

Table 2. Information source and attitude toward radical actions.

	7/1	7/21	7/27	8/4	8/11	8/18	8/25	9/15
Sex	-0.03	-0.16***	-.06	0.01	-0.06	-0.09	-0.05	-0.08*
Age	-0.15***	-0.11*	-0.23**	-0.01	-0.14	0.05	0.08	-0.04
Education	0.03	-0.00	-0.05	-0.03	-0.06	-0.01	0.03	0.06
SES	0.04	-0.04	-0.01	0.02	-0.01	-0.02	0.05	0.00
Past participation	0.06	0.09	-0.08	0.10**	0.08	0.03	0.02	0.08*
Current participation	0.10**	0.05	0.18*	0.09**	0.14*	0.12**	-0.02	0.10**
Democrats	0.08*	-0.05	-0.04	0.05	0.04	-0.11*	0.09	-0.02
Localists	0.22***	0.13*	0.06	0.15***	0.21**	-0.01	0.23**	0.06
Traditional media	-0.02	0.03	-0.02	-0.01	0.05	0.00	0.01	0.02
Online media	0.15***	0.09*	0.12	0.06	-0.09	0.07	0.24***	0.08*
Facebook	-0.01	-0.01	0.08	-0.05	-0.05	-0.05	-0.08	0.11**
Instagram	-0.06	-0.06	-0.11	-0.03	-0.06	0.04	0.04	-0.08
WhatsApp	-0.06	-0.05	0.03	0.01	0.08	-0.09*	0.03	0.05
Telegram	0.06	0.03	0.13	0.06	-0.07	0.11*	0.06	0.02
LIHKG	0.10*	0.14**	0.19*	0.20***	0.20**	0.28***	0.18**	0.09*
Adjusted R^2	0.193***	0.158***	0.227***	0.129***	0.107***	0.196***	0.139***	0.099***
N	930	610	213	1161	365	701	351	790

Notes: Entries are standardized regression coefficients. Missing values were deleted pairwise. *** $p < .001$; ** $p < .01$; * $p < .05$.

Table 2 summarizes the results for *H1*. LIHKG use indeed significantly positively related to attitude toward radical actions in all eight surveys. Among the media variables, use of online media related to more positive attitude toward radical actions in four cases. Use of all other media had no or sporadic relationship with the dependent variable. In Hong Kong, it was generally believed that young people and localists – a political faction supportive toward more radical ideologies and tactics (Lee, 2018; Veg, 2017) – were more likely to support radical actions. Yet Table 2 shows that even age and being a localist did not relate to the dependent variable as consistently as LIHKG use did.

H2 expects LIHKG use to relate to stronger feelings of solidarity. Table 3 summarizes the findings from six surveys. LIHKG use obtained a positive coefficient in all cases, though only four coefficients were statistically significant. Level of participation in the Anti-ELAB movement was positively related to the dependent variable also in four surveys, and use of online media related to stronger feelings of solidarity in five surveys. All

Table 3. Information source and feelings of solidarity.

	7/21	7/27	8/11	8/18	8/25	8/31
Sex	-0.03	-0.09	0.02	-0.02	0.07	-0.07
Age	-0.03	-0.00	-0.19**	0.03	-0.02	0.07
Education	-0.05	-0.02	-0.20**	-0.03	-0.07	0.01
SES	-0.02	0.09	-0.07	0.04	-0.02	-0.04
Past participation	0.13**	0.03	0.03	0.00	0.09	-0.02
Current participation	0.05	0.24**	0.11*	0.11*	0.17**	0.09
Democrats	-0.09	-0.06	-0.03	0.02	-0.07	-0.07
Localists	0.07	0.01	0.14*	0.12*	0.07	0.04
Traditional media	0.04	-0.03	0.01	0.08*	-0.05	0.05
Online media	0.15**	0.09	0.12*	0.11**	0.22***	0.18***
Facebook	0.07	0.07	-0.07	0.02	-0.04	-0.01
Instagram	-0.08	-0.10	0.03	-0.02	0.06	0.08
WhatsApp	-0.04	0.12	0.10	-0.06	0.05	0.00
Telegram	-0.03	-0.08	0.08	0.07	0.06	0.08
LIHKG	0.16**	0.40***	0.06	0.27***	0.07	0.14**
Adjusted R^2	0.118***	0.282***	0.149***	0.180***	0.165***	0.122***
N	610	213	365	701	351	479

Notes: Entries are standardized regression coefficients. Missing values were deleted pairwise. *** $p < .001$; ** $p < .01$; * $p < .05$.

Table 4. Information source and agreement with emerging discourses and tactics.

	Mutual destruction				Vigilantism 9/28
	8/31	9/8	9/15	9/28	
Sex	-0.07	-0.02	-0.07*	-0.04	-0.09
Age	-0.06	0.15	0.06	0.01	-0.14*
Education	-0.06	-0.02	-0.03	-0.13**	-0.07
SES	-0.01	-0.03	0.01	0.00	0.03
Past participation	0.05	0.07	0.06	0.00	-0.08
Current participation	0.11*	0.03	0.03	0.05	0.18**
Democrats	0.06	-0.09	-0.08	-0.07	-0.04
Localists	0.17**	0.05	-0.02	0.06	0.07
Traditional media	-0.03	-0.09	0.01	-0.00	0.02
Online media	0.16**	0.13*	0.05	-0.05	0.02
Facebook	0.06	-0.14*	0.10**	0.14*	0.10
Instagram	-0.02	0.10	-0.04	0.17**	-0.05
WhatsApp	0.01	-0.06	0.08	0.02	0.01
Telegram	0.10	0.10	0.03	0.06	0.12
LIHKG	0.14**	0.17*	0.14**	0.07	0.19**
Adjust R^2	0.157***	0.088***	0.064***	0.111***	0.220***
N	479	290	790	359	359

Notes: Entries are standardized regression coefficients. Missing values were deleted pairwise. *** $p < .001$; ** $p < .01$; * $p < .05$.

other variables had only sporadic relationships with the dependent variable. Although use of LIHKG did not relate to the dependent variable completely consistently, it remains one of the three factors that have a relatively consistent relationship with a stronger sense of solidarity.

Table 4 summarizes the findings regarding *H3* and *H4*. The control variables have very limited relationships with agreement with the idea of mutual destruction. Use of online media related positively to agreement with mutual destruction in two of the four surveys with the relevant items. Interestingly, Facebook use relates positively to agreement with mutual destruction in two surveys, but it also negatively relates to the variable in one case. LIHKG use relates positively to agreement with mutual destruction in three surveys.⁵ Comparatively, LIHKG use has the most consistent relationship with the dependent variable. Meanwhile, the last column of Table 4 shows the predictors of acceptance of vigilantism. LIHKG use is the only media variable that relates significantly positively to the dependent variable.

In summary, the findings support all four hypotheses. Readers may question if the reported relationships are not so much digital media effects than the result of selective usage of LIHKG by certain people. However, at least for discourse of mutual destruction and vigilantism, the effects interpretation should be more plausible because the dependent variables were emergent phenomena. Besides, even if the selective usage interpretation was valid, it remains substantively significant that there was such a platform serving as the meeting place for movement supporters preferring certain types of tactics and feeling a stronger sense of solidarity to articulate and communicate responses to ongoing events.

Concluding discussion

This article has examined the role of the online forum LIHKG as the central communication platform in the 2019 Anti-Extradition Bill Movement in Hong Kong. We showed that a huge amount of communication activities among a sharply increasing number of

users occurred on the forum in the first few months of the movement. Supporters used the forum to suggest actions, debate strategies, and articulate criticisms against the power holders. Onsite survey data showed that protesters increasingly relied on the forum as a main information source. Further analysis shows that LIHKG use was consistently related to more positive attitudes toward radical actions, stronger feelings of solidarity, and agreement with emerging discourses and tactics among the protesters.

We contend that such a central communicative platform has contributed to the power and sustainability of the Anti-ELAB Movement. The Anti-ELAB Movement had some of the characteristics of a networked social movement: the absence of recognized central leaders, a range of innovative actions organized from the bottom-up, and personalized participation among many supporters. Previous research emphasized how digital media could serve as the tools for action coordination in such contexts (Bennett et al., 2014; Tsatsou, 2018). But in addition to action coordination, the movement needed to develop common understanding of new and sometimes radical tactics, maintain solidarity, and respond effectively to ongoing events. The ability of the movement to achieve these goals was enhanced by the presence of a communication platform that the majority of movement supporters can pay attention to.

Not all digital platforms are equally suitable to serve as a central communication platform. We argue that LIHKG has the relevant affordances. Despite the extraordinary amount of communication activities, the forum's structure and features made it easy for users to capture the dominant sentiments and important new ideas. In contrast, digesting information from various online media outlets may be a much more effortful task, and the range of information that one could receive from Facebook is inevitably filtered by one's personalized networks. Moreover, the Internet environment is traversed by people of all political leanings. There can be a fair amount of anti-movement messages from various online media platforms, whereas LIHKG was indeed consumed almost exclusively by movement supporters. Therefore, although past research in Hong Kong has shown how Facebook and online alternative media can influence protest behavior (Leung & Lee, 2014; Tang & Lee, 2013), when use of various platforms and channels are controlled against each other, LIHKG stood out as the medium that related systematically to protest attitudes and adoption of movement discourses among protesters the most consistently.

Media technologies do not have specific kinds of impact simply because of their affordances. While some researchers point to resources and skills as factors that shape digital media use (Schradie, 2019), this article emphasizes movement conditions and dynamics. First, the presence of a significant level of trust and solidarity encouraged supporters to engage in one movement-wide deliberation and helped prevent the discussion to deteriorate easily into factional disputes. Second, the quick evolution of movement tactics, especially the emergence of radical actions, produced a strong need among movement supporters to understand ongoing happenings and tactical shifts. A central and apparently democratic communication platform was particularly valued. Third, a protest culture emphasizing spontaneous and bottom-up participation further led people to value a platform on which stable opinion leadership was largely absent. The role and impact of LIHKG were premised on a combination of platform affordances and movement conditions and dynamics.

A few qualifications of the conclusions and limitations of the study have to be noted. First, since LIHKG was mainly used by movement supporters to communicate among

themselves, the platform might not be effective in persuading the unconvinced to support the movement. This study's argument focuses on how digital media platforms might serve as a central platform for within-movement communication. A different type of digital platforms and a different set of movement conditions and dynamics may be required for movement supporters to effectively communicate with the broader public or even movement opponents.

Second, to say that LIHKG served as a central communication platform for the Anti-ELAB Movement does not mean that it was a platform for the kind of critical discussions envisaged by deliberative democrats. LIHKG use was associated with the adoption of the mutual destruction discourse and acceptance of radical actions, but the validity of the mutual destruction discourse and the normative justifiability of radical tactics could indeed be debated. Lee (2020) also noted the use of 'disciplinary tropes' on LIHKG for containing heated debates, but the application of disciplinary tropes can be uneven and result in the suppression of dissent. It is possible to see LIHKG as hosting an enclave deliberation (Shen, 2020) that is good for mobilization but not necessarily good for producing the most 'rational' conclusion. Quality of discussion remains a question to be examined.

Third, much of the data analyzed come from protest onsite surveys. One may question if participants of the street protests can represent all movement participants and supporters because some participants might only join the movement in other ways, or even being merely 'online participants.' Nonetheless, a survey ($N = 1574$) conducted by the Center for Communication and Public Opinion Survey at the Chinese University of Hong Kong in June 2020⁶ found that 44.8% of the respondents reported having participated in the Anti-ELAB Movement in some ways. Among these respondents, only 3.8% reported not having participated in protest marches and rallies. That is, most movement participants did join some of the street protests. Hence we believed that our onsite surveys should be able to represent the absolute majority of movement participants. However, it remains the case that participants in the Anti-ELAB Movement could have joined different types of actions to different degrees, and how digital media use – and LIHKG use in particular – related to people's mode of participation in the movement deserves further attention.

Fourth, the analysis focuses mainly on the role and impact of LIHKG in the first few months of the Anti-ELAB Movement. As shown in [Figure 1](#), amount of communication activities started to decline at the end of 2019. Lee et al. (2021) have noted that online discussions played an important role in articulating not only the justifications for but also the norms governing the use of radical tactics. But as radicalization continued, the gap between the actions carried out by frontline protesters and the norms articulated online became more apparent. There was, after all, no mechanisms to ensure that frontline protesters would follow the norms generated through online discussions. Besides, there were concerns among movement supporters about organized efforts by anti-movement forces to infiltrate into LIHKG. Despite the lack of evidence for the latter, the suspicion further undermined trust among movement supporters in the online arena. All these developments could undermine the role and impact of LIHKG. But if this was the case, it only reconfirms the theoretical point that movement dynamics shape the role and impact of digital media platforms.

To conclude, researchers interested in the role and impact of digital media in protest movements can pay more attention to the factors shaping whether specific digital media platforms can effectively communicate movement ideas and discourses. This article suggests that digital media platforms are most capable of doing so if they have the affordances that facilitate movement-wide discussion and efficient communication of the majority sentiments, and if they are embedded in movement dynamics marked by solidarity, a strong need for orientation, and a culture favoring spontaneity. Certainly, this study falls short of building a systematic theory of the factors contributing to the ability of digital media to serve as the central communication platform for a movement. Examination of more cases in various contexts is needed.

Notes

1. Based on in-depth interviews with movement participants and activists by the authors.
2. Based on in-depth interviews with movement participants and activists by the authors.
3. The protesters were young and educated. Usually around 45% of the respondents from a protest were 29 years old or below. Invariably more than two-thirds of the respondents from a protest had university education. Males slightly outnumbered females. Self-reported middle-class citizens slightly outnumbered self-reported lower class citizens.
4. The mean score for LIHKG went down somewhat in the September 28 rally, which commemorated the fifth anniversary of the Umbrella Movement and attracted fewer young people to join.
5. The discourse of mutual destruction was first promoted in mid-August. It may not be coincidental that the relationship was insignificant in late September, when the discourse has already spread so widely that adoption might no longer rely on the use of specific platforms.
6. The survey was commissioned by the authors.

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Notes on contributors

Francis L. F. Lee is a Professor at the School of Journalism and Communication, Chinese University of Hong Kong [email: francis_lee@cuhk.edu.hk].

Hai Liang is an assistant professor at the School of Journalism and Communication, Chinese University of Hong Kong [email: hailiang@cuhk.edu.hk].

Edmund W. Cheng is an associate professor at the Department of Public Policy, City University of Hong Kong [email: ew.cheng@cityu.edu.hk].

Gary K. Y. Tang is an assistant professor at the Department of Social Sciences, Hang Seng University of Hong Kong [email: garytangky@gmail.com].

Samson Yuen is an assistant professor at the Department of Government and International Studies, Hong Kong Baptist University [email: samsonyuen@hkbu.edu.hk].

ORCID

Edmund W. Cheng  <http://orcid.org/0000-0002-9116-1082>

Samson Yuen  <http://orcid.org/0000-0002-7816-7180>

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