

Countering the Counterpublics: Progovernment Online Media and Public Opinion in Hong Kong

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Many studies have illustrated how digital media can facilitate political criticisms and protests, but recent scholarship has noted the ability of authoritarian states to control the Internet and undermine its oppositional character. This study focuses on the "hybrid regime" of Hong Kong, where the progovernment forces have tried to counteract the formation of an online counterpublic sphere by setting up numerous online outposts since the mid-2010s. It examines how exposure to progovernment online media content is related to political attitudes. In addition to a direct relationship, drawing on inoculation theory, this article contends that progovernment online media may also consolidate support for the government by neutralizing the influence of online alternative media. Survey data analysis shows that exposure to progovernment online media content indeed related to more conservative views, and the connection between online alternative media use and prodemocracy attitudes was weaker among older citizens regularly exposed to progovernment online media.

Keywords: Internet control, hybrid regime, progovernment media, alternative media, inoculation

Since the 2000s and the early 2010s, political communication researchers have paid much attention to the role played by digital and social media in many large-scale protests around the world (Bennett & Segerberg, 2013; Tufekci, 2017). Digital media have seemingly become the platforms and tools for the communication of critical viewpoints, generation of oppositional consciousness, maintenance of protest networks, and mobilization for and coordination of actions. However, in more recent years, scholars have also noted the state's capability to engage in sophisticated Internet control (MacKinnon, 2013; Michaelsen, 2017; Roberts, 2018). Authoritarian and semiauthoritarian states, in particular, engage in strategies ranging from censorship to manipulation of online opinion to weaken the oppositional character of digital communication. To understand the political impact of digital media, we need more empirical examination of how successful the state's attempts to shape online communication and public opinion are.

This article focuses on the "hybrid regime" of Hong Kong (Fong, 2013), where the growth of online alternative media (Leung & Lee, 2014) and the formation of an insurgent public sphere (P. S. N. Lee, So, & Leung, 2015) in the early 2010s was followed by the progovernment groups' efforts to construct their online

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outposts. Consumption of progovernment outlets and online alternative media is likely to relate to public opinion in contrasting ways. Besides, because the two types of opinionated media coexist with each other, it would be meaningful to examine how they might shape the influence of each other. Specifically, with the primary focus on online progovernment media and drawing on the theory of inoculation in persuasion, this study examines whether consumption of progovernment media content could neutralize the impact of online alternative media. It also examines whether the inoculation impact varies across age cohorts. Overall, this article contributes to our understanding of the power of nondemocratic states in shaping the political impact of the Internet.

The following further discusses the authoritarian state's attempts to tame the Internet and the changing digital and social media landscape in Hong Kong. It then briefly introduces the theory of inoculation and sets up the research questions and hypotheses. Data from a representative survey are then introduced and analyzed.

Political Opposition and State Control in the Digital Arena

Scholars have long noted the Internet's potential to serve as the platforms on which alternative media—outlets that challenge the concentration of symbolic power in the mainstream media (Couldry & Curran, 2003)—can more effectively operate. The main factors rendering the Internet useful for alternative media practices include a decentralized and nonhierarchical architecture, lowered content production and distribution costs, and new opportunities for amateur-activist coproduction (Harcup, 2013). Online alternative media have proliferated in many countries, offering the space where suppressed viewpoints can be articulated, members of marginalized groups can connect with each other, and counterpublic spheres can be formed (Downey & Fenton, 2003; Lievrouw, 2011).

The popularization of social media has further enhanced the reach of alternative media content. In addition, social media themselves are the space and tools for counterpublic formation and action coordination (Bennett & Segerberg, 2013; Tufekci, 2017). The role of social media in protests has been widely recognized (e.g., Papacharissi, 2016; Tremayne, 2014; but see Flesher Fominaya, 2020). Survey research has repeatedly demonstrated the impact of social-media-based political communication on protest participation and/or support for democratization (e.g., Chang & Park, 2021; G. K. Y. Tang & Lee, 2013).

However, although alternative media and social media may continue to serve the purpose of activism, the overall political implications of digital media are contingent on state control. The latter issue is particularly important in authoritarian or semiauthoritarian countries. The Russian government, for example, exercised heavier Internet control after the protests in 2011. It strengthened rhetorical attack on Western social media, labeled critics as traitors, enacted a blacklist law for blocking websites, and used slander and extremism laws to induce self-censorship (Gainous, Wagner, & Ziegler, 2018). These strategies were aimed at marginalizing online dissent. A few liberal media and bloggers are allowed to exist so that the government can "get insights on the protest moods in the society" (Denisova, 2017, p. 989), but the government ensured that oppositional media would have limited access to the public.

MacKinnon (2013) uses China as the prime example and explicates how authoritarian countries may allow people to enjoy a greater degree of freedom of expression than before, but they also simultaneously limit such freedom by a sophisticated system of information control, censorship, and public opinion manipulation. Roberts (2018) notes that the Chinese state censors the Internet through a combination of fear, friction, and flooding. That is, the state employs repressive measures against outspoken individuals (fear), increases the difficulties for people to access alternative information (friction), and ensures that the online arena is filled with an abundance of distractive contents (flooding). Studies on other authoritarian countries have found a similar set of control strategies and the marginalization of online counterpublics (Filer & Fredheim, 2016; Michaelsen, 2017; Moss, 2018; Pearce & Kendzior, 2012). There is now widespread recognition that digital media can empower autocrats as much as they empower activists (Rod & Weidmann, 2015).

Nevertheless, state control is incomplete. In China, for example, although some studies have found a positive relationship between social media communication and regime support (Hyun & Kim, 2015), alternative online framing of public affairs has remained capable of generating critical attitudes toward the government (M. Tang & Huhe, 2014). Here, it would be useful to adopt a more differentiated approach to examine the political impact of specific digital media outlets or control strategies. In Russia, for example, consumption of foreign social media such as Facebook during the 2011 Duma election was associated with stronger perceptions of electoral fraud, whereas consumption of domestic social media was not (Reuter & Szarkonyi, 2015). In Hong Kong, the presence of online progovernment outlets represents an intervention by the political establishment into digital politics. It would be meaningful to examine how such intervention shapes the formation of public opinion.

The Evolution of the Digital Sphere in Hong Kong

Hong Kong has long had one of the highest Internet penetration rates in East Asia, with 79.9% of households connected to the Internet by 2013 (Census and Statistics Department, 2017). For public affairs content, most professional news media have established their websites and social media accounts. Since the mid-2010s, several "digital only" or "digital first" professional-oriented news media have also been established. Such outlets are run by people who self-identify as journalists and abide by conventional professional norms. When important issues occur, the professional-oriented online media still attract much audience attention. But they have faced increasing challenge from both online alternative media and progovernment outlets (F. L. F. Lee, 2017).

The first wave of online alternative media, mainly in the form of online radio stations, emerged around 2004, although many of them were financially unsustainable. A second wave of online alternative media, mainly in the form of news-cum-commentary websites, emerged around 2012 (Leung & Lee, 2014). The growth of alternative media was tied to both the rise of social protests (Cheng, 2016) and the increasing docility of the mainstream media (Au, 2017). Despite their general lack of resources, online alternative media provided the space for expressing critical viewpoints, occasionally influencing the mainstream media agenda (Yung & Leung, 2014). Meanwhile, the popularization of social media enlarged the circulation of alternative media materials. In addition, social media are the platforms where people can connect with political groups and activists, share information, and engage in various forms of digital participation (G. K.

Y. Tang & Lee, 2013). In both the 2014 Umbrella Movement and the 2019 Anti-ELAB Movement, social media were crucial to action coordination and citizens' "monitorial participation" (Hill, 2019; F. L. F. Lee & Chan, 2018, pp. 75–104).

By the mid-2010s, researchers noted how digital media facilitated the formation of an insurgent public sphere in Hong Kong. P. S. N. Lee et al. (2015) argue that, when controversial issues arose, digital and social media became the sites "for issue advocates to galvanize into collective action, making demands and putting pressure on the political authorities" (p. 360). Empirically, research has shown that online alternative media use was associated with higher levels of oppositional knowledge, perceptions of media self-censorship, and protest participation (F. L. F. Lee, 2015; Leung & Lee, 2014), and social media use was found to relate to support for democracy and protest participation (P. S. N. Lee et al., 2015; G. K. Y. Tang & Lee, 2013).

As a response, the state began to intervene in online political communication (Tsui, 2015). Most pertinent to this study, progovernment forces set up websites and social media pages. Examples included Speak Out Hong Kong, which was established by a close ally of former Chief Executive of the Hong Kong government C. Y. Leung, and Silent Majority for Hong Kong, established by a group of conservative public figures. During the 2014 Umbrella Movement, these outlets helped promulgate the main antimovement frames in the online arena (F. L. F. Lee & Chan, 2018). They continued to gain attention after the movement. During the Anti-ELAB protests in 2019, YouTube became a new battleground for prodemocracy and progovernment opinion leaders (Cheung, 2020); however, this article is focused on the online progovernment media sites.

There is a lack of systematic analysis of the content of the progovernment outlets. But the Hong Kong Journalists Association (2018) observed that the progovernment online media often try to dominate online opinion by issuing huge numbers of posts during political controversies. The outlets promote the government's viewpoints through simplifying incidents, selective causal attribution, and employing dismissive labels for opponents. Moreover, being part of the 24-hour nonstop news cycle, the outlets can engage in real-time "agenda-steering" to influence the evolution of news events (F. L. F. Lee, 2017, pp. 64–65).

Hitherto we only have findings pointing indirectly to the impact of the progovernment online media. F. L. F. Lee, Lee, So, Leung, and Chan (2017) found that reliance on Facebook as an information source was related to more critical attitudes toward the government only among prodemocracy citizens and nonpartisans. Among progovernment citizens, reliance on Facebook did not relate to political attitudes. This pattern of findings suggests that the progovernment citizens were either unexposed to content critical toward the government, or they were exposed to critical content but remained unaffected.

Persuasion and Inoculation: The Possible Impact of Progovernment Outlets

The preceding sections have outlined the background for this study, but it is important to briefly explicate the psychological perspectives that inform the analysis of the possible individual-level consequences of online media consumption. Both progovernment and online alternative media may influence people's attitudes simply through persuasion by valenced messages. Progovernment and online alternative media are by definition "partisan media" as they produce content favoring a specific side in the

political divide. From a message learning perspective (Petty & Cacioppo, 1998, pp. 59–94), people consuming the content may take up the information and discourses, thereby shifting their views toward the side favored by the media outlets (Zaller, 1992).

However, the present study is not interested only in the direct relationship between partisan media use and political attitudes. Given that progovernment media emerged in Hong Kong when the digital arena had already taken up the character of an insurgent public sphere, and extant research has found significant impact of alternative media on public opinion (e.g., F. L. F. Lee, 2015), an important question is whether exposure to progovernment media may neutralize the influence of alternative media. Theoretically, the possibility of neutralization is first of all grounded in the incompleteness of partisan selective exposure. If selective exposure is “complete” and progovernment citizens did not encounter alternative media content at all, there would be no influence of alternative media to “neutralize.” But in reality, partisan selective exposure is unlikely to be complete, partly because of the prevalence of online alternative media contents in Hong Kong, and partly because of the prevalence of incidental exposure in the online arena (Brundidge, 2010). In this situation, an important role of the progovernment outlets can be to prevent government supporters being influenced by alternative media.

Given simultaneous exposure to progovernment outlets and online alternative media, inoculation theory provides a perspective to understand how progovernment outlets might shape the impact of online alternative media. Originally developed by McGuire (1961), studies of inoculation are concerned with how exposure to preemptive, proattitudinal messages can prevent people from being influenced by counterattitudinal messages. Resistance to persuasion requires both motivation and ability. Although various factors can motivate people to defend their existing views (e.g., a heightened sense of threats) and enhance people’s ability to do so (Compton & Pfau, 2009), communication also matters. Specifically, exposure to carefully designed proattitudinal messages can trigger people’s motivation to defend one’s view and provide the counterarguments for people to refute counterattitudinal messages (An & Pfau, 2004).

Inoculation theory is consistent with the broader psychological theory of cognitive response (Mutz, 1998), which sees persuasion as dependent on what cognitive responses arise in people’s minds when incoming messages are processed. Exposure to messages favoring one’s side could enhance the ability of people to argue against counterattitudinal messages. Applied to this study, exposure to progovernment outlets may familiarize people with the progovernment discourses and thus strengthen their ability to argue against alternative media materials. Inoculation should manifest itself through an interaction effect: The relationship between online alternative media exposure and political attitudes should be weaker among frequent consumers of progovernment media content.

Inoculation should not be applicable to everyone equally, however. Studies have suggested that the power of inoculation can depend on the characteristics of the inoculation messages, perceived credibility of the information sources, and so on (e.g., Compton, Jackson, & Dimmock, 2016; Zerbeck, Topfl, & Knopfle, 2021). This study also examines whether the phenomenon of inoculation is applicable to different age cohorts equally. The reason for focusing on age and the arguments for expecting between-age-groups differences is explicated in the next section.

Research Questions and Hypotheses

We can now set up the research question and hypotheses by combining the conceptual and contextual considerations. As noted earlier, although part of this study examines hypotheses derived from inoculation theory, the applicability of inoculation theory is premised on simultaneous exposure to different types of media outlets. Hence, the first issue to address is people's online media consumption. Specifically, if partisan selective exposure predominates, exposure to one partisan outlet should be highly correlated with exposure to other partisan outlets on the same side, but it would be weakly or even negatively correlated with exposure to partisan outlets on the opposite side (Jamieson & Cappella, 2008). In this case, exposure to different types of media outlets would constitute distinctive factors. But if incidental exposure predominates (Brundidge, 2010), people would encounter materials from a range of outlets regardless of their personal views (Fletcher & Nielsen, 2017), and exposure to media outlets on different sides would not constitute distinctive factors. It should be emphasized that this is not a technical measurement issue. The following research question is stated for gaining insights into the relative prevalence of selective versus incidental exposure:

RQ1: Does exposure to different types of online media—the professional-oriented, the progovernment, and the alternative—constitute distinctive sets of media consumption activities?

After Research Question 1, the analysis examines the relationship between online media and political attitudes. The possible "main effects" of progovernment and alternative media remain a key aspect of the politics of online public opinion. Besides, it would be meaningless to discuss inoculation unless there is some influence to be inoculated against. From a message learning perspective, online alternative media and progovernment media exposure should be related to more antigovernment and more progovernment attitudes, respectively. Certainly, a relationship between media exposure and political attitudes may be explained by selective exposure. This caveat should be kept in mind and is discussed in the Discussion section.

To ascertain the robustness and generality of the findings, this study uses both issue attitudes and political trust as dependent variables. For issue attitudes, this study examines support for democratization and attitude toward the Tiananmen Incident in 1989. These were two prominent issues in Hong Kong politics. On both issues, a clear distinction between the "progovernment" and "antigovernment" stance existed. Besides, this study examines trust in the Hong Kong Special Administrative Region Government and the Chinese Central Government. Two hypotheses are stated as follows:

H1: Exposure to online alternative media is associated with stronger support for democratization, stronger support for rehabilitating the Tiananmen Incident, and lower levels of trust in the Hong Kong and Chinese governments.

H2: Exposure to progovernment online media is associated with weaker support for democratization, weaker support for rehabilitating the Tiananmen Incident, and higher levels of trust in the Hong Kong and Chinese governments.

Then, following the arguments of inoculation theory, I expected the relationship between online alternative media exposure and political attitudes to depend on exposure to progovernment media:

H3: The relationship between online alternative media exposure and political attitudes is weaker among people more regularly exposed to progovernment online media.

Finally, this study explores whether the pattern of relationships among media use and political attitudes varies across age cohorts. The focus on age cohorts is based on the prominence of debates about generational differences in Hong Kong (Ku, 2019; Lui, 2006). For this study, I expected the inoculation hypothesis to be applicable mainly to older age cohorts. First, older people in Hong Kong tend to be more politically conservative (F. L. F. Lee, 2018). They should be more likely to pick up the progovernment media discourses and more motivated to evoke them to counterargue against alternative media materials. Second, with higher education expanding only in the 1980s and 1990s (University Grants Committee, 1996), older Hong Kong citizens are on average less educated than their young counterparts. With lower levels of cognitive sophistication, they could be relatively more reliant on progovernment media to provide them with the discourses to counterargue against alternative media content. Third, similar to other countries, young people in Hong Kong were the early adopters of digital and social media. As relative “newcomers” to online political communication, older citizens can be more susceptible to various kinds of online media influences because of the novelty effect. Therefore, the last hypothesis is stated as follows:

H4: The pattern of relationship expected based on inoculation theory (i.e., the relationship stipulated in H3) is more conspicuous among older age cohorts.

Method and Data

Data were derived from a telephone survey conducted by the Center for Communication and Public Opinion Survey at the Chinese University of Hong Kong between January 18 and February 1, 2018. Target respondents were Cantonese-speaking Hong Kong residents between 18 and 70 years old.¹ Sampling proceeded by compiling all residential phone numbers from the most recent telephone directories. To include unlisted numbers, the last two digits were removed and replaced by the full set of double-digit figures from 00 to 99. Specific numbers were randomly drawn by computers. The most recent birthday method was used to select the target respondent from a household.² The sample size was 806. The response rate, following RR3 (which takes partially into account cases of unknown eligibility), was 35%. The sample was weighted according to the Age × Gender × Educational Level distribution of the population when conducting the analysis.

¹ Excluding foreign domestic helpers, 96% of Hong Kong residents could speak Cantonese (Census and Statistics Department, 2016). An age ceiling was set because the survey included some open-ended questions that senior citizens might find difficult to complete in a telephone interview.

² This sampling procedure means that households without landlines were excluded. Nevertheless, a study in the mid-2010s in Hong Kong showed that landline-based sampling actually derived more representative samples than mobile-based sampling did (Chiu & Jiang, 2017). The sampling approach should have been adequate at the time the survey was conducted.

The operationalizations of the key variables are as follows:

Social Media Political Communication

The survey asked respondents the amount of time they spent on "Facebook or other social media sites." Social media users were then asked whether they (a) accessed public affairs or political information via social media, (b) expressed views on public affairs and politics on social media, and (c) joined social media groups related to public affairs and politics. Answers were registered with a 5-point scale (1 = *not at all*, 5 = *very frequently*) and averaged for an index ($\alpha = .69$). Non-social-media users were recoded as "1," that is, equivalent to not using social media for any political communication activities ($M = 1.79$, $SD = 0.81$). This study did not focus on the impact of social media, but the index was an important control for identifying the impact of exposure to online media.

Exposure to Online Media

A set of questions asked all Internet users whether they were exposed to the content from eight online media outlets "via the Internet or social media": (a) HK01, (b) The Stand News, (c) Passion Times, (d) VJ Media, (e) Citizen News, (f) Inmedia HK, (g) HKG Pao, and (h) Speak Out Hong Kong. These outlets were selected because they were among the most prominent online media belonging to the three types of outlets examined.³ Answers were registered by a 4-point scale ranging from 1 = *not at all* to 4 = *frequently*. Descriptive statistics of the individual items are discussed in the next section. For multivariate analysis, indices for exposure to professional-oriented media, to online alternative media, and to progovernment media were created by averaging the items belonging to each category. Non-Internet users were coded as "1" because, for the present purpose, they were the same as Internet users not exposed to the outlets ($M = 1.81$, $SD = 0.80$ for professional-oriented media; $M = 1.62$, $SD = 0.66$ for online alternative media; $M = 1.50$, $SD = 0.64$ for progovernment online media).

Support for Democratization

The survey asked the respondents to indicate with a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*) whether they agreed that (1) "all the functional constituency seats in the Legislative Council should be eliminated," and (2) "the Hong Kong Special Administrative Region Government should

³ Stand News was established in 2014 and has been arguably the most prominent alternative media site in Hong Kong. Its status was further consolidated during the 2019 Anti-ELAB protests (Newman et al., 2020, p. 97). Inmedia HK was established in 2005 and is one of the oldest online alternative sites in the city, whereas Passion Times and VJ Media are representative of online alternative media oriented toward "localism," an ideology emerging in the 2010s that emphasizes the priority of local interests. Speak Out Hong Kong and HKG Pao are among the more prominent progovernment outlets in Hong Kong. Studies have shown that the level of online engagement they could attract during major political events was comparable to that attracted by online alternative media by the time of the study (F. L. F. Lee, 2017). HK01 is the largest (in terms of staff size) digital-first professional media in Hong Kong, whereas Citizen News was established by a group of prominent and respected journalism professionals in late 2016.

reinitiate political reform as soon as possible." Answers were averaged to form an index (Spearman-Brown coefficient = .62, $M = 3.37$, $SD = 1.13$).

Attitude Toward the Tiananmen Incident

Respondents were asked whether they supported rehabilitating the Tiananmen student movement in 1989, if they supported continuing the annual commemoration in Hong Kong, and if they agreed with the statement "the students also had responsibilities in the June 4 event; one should not only blame the government." Answers were registered with a 5-point Likert scale (1 = *very unsupportive/strongly disagree*, 5 = *very supportive/strongly agree*). The third item was reverse-coded. The three items were then averaged to form the index ($\alpha = .71$, $M = 3.32$, $SD = 0.92$).

Trust in the Hong Kong and Chinese Governments

Respondents were asked to indicate, by means of a 0–10 scale (0 = *absolutely not trust*, 10 = *absolutely trust*), how much they trusted the Hong Kong government ($M = 4.46$, $SD = 2.57$) and the Chinese Central Government ($M = 4.05$, $SD = 2.86$).

Political Conservatism

Although the two issue attitudes and two trust variables were used as separate variables, initial data analysis found that they were highly correlated. To provide further insights, I created an overall political conservatism index by averaging the standardized scores of the four variables (with attitude toward Tiananmen and support for democratization reverse-coded before the averaging; $\alpha = .79$, $M = 0.00$, $SD = 0.82$).

Age Cohort

Although this study was interested in whether online media related to political attitudes differently for different age groups, the analysis was based on the idea of age cohort instead of age as a linear variable because past research in Hong Kong has shown that the relationship between age and political attitudes is not linear (F. L. F. Lee, 2018). Hence, the sample was broken down into (1) 50 years of age or above, (2) between 40 and 49 years of age, (3) between 30 and 39 years of age, and (4) between 18 and 29 years of age. The first three groups delineated here corresponded, respectively, to the first and second generations, third generation, and fourth generation in Lui's (2006) sociological analysis of generational differences in Hong Kong, whereas the youngest group might be regarded as a "fifth generation" not yet taken into account by Lui in the mid-2000s.

Control Variables

These included other demographics (education, family income, and gender) and several basic political orientations (political interest, internal efficacy, external efficacy, and collective efficacy, each

represented by the average of two 5-point Likert scaled items). Besides, media attention⁴ and interpersonal political discussion are controlled to ascertain the specificity of the impact of online media. Details of operationalizations are omitted because of space constraints.

Analysis and Results

Online Media Exposure

Table 1 summarizes the descriptive statistics of exposure to the content of the eight online media outlets. The highest mean score was registered by HK01, followed by the alternative media site Stand News and then the progovernment outlet Speak Out Hong Kong. These figures suggest that no single type of online media outlets attracted higher levels of audience attention in an across-the-board manner.

Table 1. Descriptive Statistics of Exposure to Content of Online Media Outlets.

Outlet	Mean	SD
HK01 (professional)	2.18	1.05
Citizen News (professional)	1.70	0.88
Stand News (alternative)	2.03	1.01
Passion Times (alternative)	1.63	0.85
VJ Media (alternative)	1.42	0.77
Inmedia HK (alternative)	1.63	0.91
HKG Pao (progovernment)	1.26	0.58
Speak Out Hong Kong (progovernment)	1.86	0.97

Note. The mean scores here do not include non-Internet users. Scale: 1 = *not at all*, 4 = *frequently*.

Exposures to the eight outlets were all positively correlated. Research Question 1 asked whether exposure to the outlets constitutes distinctive sets of media consumption activities. An exploratory factor analysis with principal components extraction and oblique rotation was conducted. To reiterate, the factor analysis was not aimed at confirming the categorization of the outlets; rather, it was to address the question of how consumption of the outlets relates to each other. Setting an eigenvalue = 1 as the criterion, only one factor emerged. The eigenvalue of the factor was 3.57 (variance explained = 44.6%). When a three-factor solution was imposed, the eigenvalues of the second and third factors were 0.91 and 0.78, respectively.

On the whole, there was no strong evidence that exposure to the eight outlets constituted distinctive clusters. Instead, social media political communication was positively and significantly related to exposure to all eight outlets (Pearson r ranged from .18 to .51). This suggests that people often encountered

⁴ Media attention is the average of respondents' level of attention paid to "political news" when they consumed (1) newspapers and (2) TV news. Answers were registered by a 5-point Likert scale that ranged from 1 = *very inattentive* to 5 = *very attentive*. The index was derived by averaging the scores (Pearson r = .77, M = 3.40, SD = 0.85).

the content of these outlets through social media, probably sometimes incidentally. The latter also explains why consumption of the outlets' content was not differentiated into three clear clusters. Nevertheless, because the three types of outlets were distinctive in terms of background and content characteristics, the following analysis continued to employ the indices of exposure to the progovernment, alternative, and professional-oriented media.

Online Media Exposure and Political Attitudes

Multiple regression analysis was conducted to test Hypothesis 1 and Hypothesis 2. The dependent variables were support for democratization, attitude toward the Tiananmen Incident, trust in the Hong Kong government, trust in the Chinese government, and the political conservatism index. The independent variables included all the controls and the indices of exposure to online media.

As Table 2 shows, exposure to online alternative media consistently significantly related to the dependent variables in the expected direction:

Table 2. Relationships Between Online Media Exposure and Political Attitudes.

Variable	Support democratization	Attitude toward Tiananmen	Trust Hong Kong government	Trust China government	Conservatism index
Sex	-.00	-.01	.03	-.08**	-.01
Age (years)					
18–29	.01	.10**	-.03	-.11**	-.08*
30–39	.08*	.01	-.07*	-.08**	-.08*
40–49	.05	.05	.01	.00	-.03
Education	-.17***	.02	.11**	.06	.10**
Income	.03	.03	-.00	-.02	-.03
Political interest	.17***	.12**	-.08*	-.01	-.12**
Internal efficacy	.07	-.03	.01	-.02	-.01
External efficacy	.18***	.17***	-.05	-.12***	-.16***
Collective efficacy	-.36***	-.41***	.64***	.61***	.62***
Media attention	-.01	-.09*	-.01	-.03	.02
Social media	.01	.05	-.06	-.06	-.05
political communication					
Discussion	.03	.07*	-.03	-.00	-.04
Online media					
Professional	.12*	.13**	-.07	-.03	-.11**
Alternative	.11*	.12**	-.08*	-.11*	-.13**
Progovernment	-.15***	-.07*	.04	.09**	.10**
Adjusted R^2	.273***	.356***	.500***	.466***	.540***

Note. Entries are standardized regression coefficients. Missing values were replaced by means. $N = 806$. * $p < .05$. ** $p < .01$. *** $p < .001$.

People exposed to online alternative media more frequently supported democratization more, supported rehabilitating the Tiananmen Incident more, and trusted the Hong Kong and Chinese governments less. In contrast, people more exposed to progovernment online media were less supportive toward democratization, less supportive toward rehabilitating the Tiananmen Incident, and trusting the Chinese government more. The findings offer strong support for both Hypothesis 1 and Hypothesis 2.

Notably, exposure to the professional-oriented outlets also related to the political attitudes in ways similar to how exposure to online alternative media related to the dependent variables. Besides, social media political communication did not relate significantly to the dependent variables. That is, once the impact of online media was controlled, using social media to engage in political communication no longer related to more or less critical attitudes. Similarly, neither interpersonal political discussion nor mainstream media attention had consistent relationships with the dependent variables.

Turning to Hypothesis 3, I examined the proposed interaction effect through two methods. First, I created an interaction term by multiplying the two independent variables concerned and added it into the model in Table 2. The independent variables were mean-centered when creating the interaction term. Second, I ran the interaction effect analysis using PROCESS macro 3.4. Table 3 summarizes the findings.

Table 3. Interaction Effects Between Online Progovernment and Alternative Media Exposure.

Variable	Support democratization	Attitude toward Tiananmen	Trust Hong Kong government	Trust China government	Conservatism index
Ordinary least squares coefficient for Online Progovernment × Alternative Media	-.02	-.02	.05 [^]	.01	.03
ΔR^2 from PROCESS macro	.0002	.0001	.0018 [^]	.0003	.0006

Note. $N = 806$.

[^] $p < .10$.

None of the interaction effects reached the conventional level of statistical significance in either approach. At most, the interaction effect term obtained a coefficient significant at $p < .10$ on trust in the Hong Kong government. The pattern of interaction was as expected: The negative relationship between online alternative media exposure and trust toward the Hong Kong government was weaker among people with higher levels of exposure to progovernment media, but on the whole, Hypothesis 3 was not supported.

Relationships Between Online Media Exposure on Attitudes Across Age Groups

One possible reason for the lack of support for Hypothesis 3 is that the inoculation effect of progovernment media exposure may be applicable only to specific groups of individuals. Hypothesis 4 posited that the pattern of relationships derived from the inoculation hypothesis should be more prominent among senior citizens. The sample was split into four cohorts, but testing Hypothesis 4 would have been

clumsy if multiple cohorts were used. As Table 2 shows, there was no significant difference between 40- to 49-year-olds and 50- to 70-year-olds (the reference category) on the dependent variables. Yet, there were some significant differences between the two younger cohorts and people between 50 and 70 years of age. Hence, it should be reasonable to break down the sample into those below and those “at or above” 40 years old for the sake of parsimony.

To test Hypothesis 4, I could either create a three-way interaction term or use a split-sample approach. Both approaches were used to confirm the robustness of the result, but I adopted the split-sample approach for presentation. A regression model—the one in Table 2 plus the interaction term but minus the age cohorts—was conducted between the two groups separately.

Table 4 summarizes the key findings regarding the interaction effect. In ordinary least squares regression, the interaction between online alternative media exposure and online progovernment media exposure significantly affected trust in the Hong Kong government, trust in the Chinese government, and the political conservatism index only among older citizens. More important, for all three dependent variables, the coefficients obtained by the two-way interaction term in the older citizen subsample indeed significantly differed from the corresponding coefficients in the younger citizen subsample.

Table 4. Interaction Effects Between Online Progovernment and Alternative Media Exposure for Two Age Groups.

Variable	Support democratization		Attitude toward Tiananmen		Trust Hong Kong government		Trust Chinese government		Conservatism index	
	Young	Senior	Young	Senior	Young	Senior	Young	Senior	Young	Senior
Ordinary least squares coefficient for Online Progovernment × Alternative Media	-.01	-.01	.09	-.03	-.03 _a	.11** _a	-.09 _b	.09* _b	-.09 _b	.09* _b
ΔR^2 from PROCESS macro	.0001	.0004	.0050	.0007	.0009	.0070**	.0049	.0052*	.0049	.0052*

Note. Pairs of entries sharing the same subscript have their standardized coefficients significantly differing from each other at $p < .05$. $ns = 310$ and 496 for young and senior respondents, respectively.

* $p < .05$. ** $p < .01$. *** $p < .001$.

The results using the PROCESS macro were the same. The two-way interaction term predicted trust in the Hong Kong government, trust in the Chinese government, and political conservatism significantly only among older citizens. Using the Johnson–Neyman method, among the older citizens, online alternative media exposure had a significant negative impact on trust toward the Hong Kong government, trust toward the Chinese government, and political conservatism only when exposure to online progovernment media was lower than 1.99 (73.6% of the sample were in this region), 2.45 (90.3% of the sample were in this region), and 2.55 (95.3% of the sample were in this region), respectively.

To further confirm the conclusion's validity, I tested Hypothesis 4 with a regression using a three-way interaction term (the dichotomous "Young vs. Old" \times Online Alternative Media Exposure \times Online Progovernment Outlet Exposure) as well as the relevant two-way interaction terms. The three-way interaction was statistically significant for trust in the Hong Kong government and trust in the Chinese government ($\beta = .07, p < .05$ in both cases), but not on the political conservatism index ($\beta = .05, p < .11$). Overall, the hypothesized moderating impact of age cohort was significant for three of the five dependent variables (and consistently significant regardless of analytical approach for two of them). Hypothesis 4 was partly supported. Putting it somewhat differently, Table 4 provides support for the argument that the pattern of relationship derived from the inoculation thesis is applicable to the senior citizens.

Discussion

The above analysis examined the relationship between exposure to online media content and Hong Kong citizens' political attitudes. The results show that exposure to different types of online media is not separated into distinctive clusters. That is, online media of different political predilections have not constituted separated echo chambers. The results are in line with the idea that people are often exposed to online public affairs information incidentally (Brundidge, 2010). Despite the tendency of selective exposure, most people are still exposed to online media belonging to different political factions (Fletcher & Nielsen, 2017).

Simultaneous exposure to various types of online media outlets constitutes an important background for the examination of the possible configurations of relationships between online media consumption and political attitudes. The analysis shows that exposure to content from online alternative media is consistently related to political attitudes that are liberal progressive in character and critical toward the government. Yet, progovernment outlets can counteract alternative media in two ways: Exposure to progovernment online media has its own direct relationships with political attitudes, and it can undermine the relationship between online alternative media and trust toward the governments, although the latter is restricted to citizens of the older age cohorts.

From a media effects perspective, this article argues that progovernment media can neutralize the impact of alternative media because the content of progovernment media can help citizens generate cognitive responses when encountering alternative media content (Petty & Cacioppo, 1998). It might be understood as a case of inoculation against persuasive influence at work (An & Pfau, 2004). The mechanism of inoculation is not directly registered; doing so requires the measuring of the cognitive responses that people come up with when encountering counterattitudinal content. But inoculation theory provides the basis to expect a specific pattern of findings, and the pattern of findings does emerge (this point is further discussed below).

The pattern of findings predicted by an application of inoculation theory was present only among older age cohorts. This article's argument is that senior citizens in Hong Kong are, on average, more likely to hold conservative views, less cognitively sophisticated, and more susceptible to online media influence in the first place. Hence, they are the ones most likely to find the content of progovernment outlets useful for them to defend their existing views when they encounter counterattitudinal contents. Put into the Hong

Kong context, the findings contribute to our understanding of the strategic concerns behind the proliferation of progovernment outlets: It can be a means to consolidate the government's supporters rather than to persuade the other side. The findings also contribute to our understanding of the intractability of generational differences and conflicts in the city.

The findings also have implications for our understanding of the impact of online professional media and social media platforms in general. The analysis shows that exposure to professional-oriented online media is related to political attitudes in ways similar to how exposure to online alternative media is related to political attitudes. One way to explain the pattern is to recognize that, in the hypercompetitive online environment, even media outlets operated by professional journalists might find the need to loosen the constraint of neutrality in news reporting. And to the extent that journalistic professionalism is grounded in a liberal theory of the press, there can be an ideological affinity between professional media and the liberal orientation, especially in the context of Hong Kong where press freedom has been under siege (Au, 2017). Hence, at the time the survey was conducted, many professional-oriented online media might also have exhibited a liberal inclination.

Meanwhile, the findings show that political communication via social media does not relate significantly to political attitudes after controlling for exposure to online media outlets. This finding should not be surprising. Social media only constitute platforms for communication. The impact of such communication should depend on the content being communicated, which still largely originates from media institutions. The findings call for a reconsideration of arguments that social media themselves constitute an "insurgent public sphere" (P. S. N. Lee et al., 2015). With the growing prominence of progovernment online media, social media communication in Hong Kong may no longer have an overall political tone. Social media can still provide the basis for the construction of counterpublics, but the counterpublics have to coexist with the progovernment publics in the online arena.

It is also worth noting that the analysis also controlled for consumption of conventional news media, represented by the media attention variable. The latter variable, which captured general attention to the news via newspapers and television, did not relate consistently with the dependent variables. Despite concern with declining press freedom and self-censorship, mainstream media outlets at the time of the survey still ranged from the highly conservative ones and the relatively liberal-oriented and critical ones. Hence, a simple and direct relationship between an overall media attention variable and political attitudes was less likely to emerge.

More broadly, this study contributes to the literature on the Internet control capacity of authoritarian or semiauthoritarian governments. Numerous scholars have noted the capacity of authoritarian states to adopt sophisticated strategies to suppress and/or marginalize online dissent (Denisova, 2017; Roberts, 2018). Hong Kong features a nondemocratic political system with an open information environment. Until the late 2010s, the Chinese government did not impose the full set of mechanisms of Internet control in Mainland China on the city. What the Chinese and Hong Kong governments did was to mobilize its resources and supporters to develop online outposts to disseminate progovernment information and viewpoints (F. L. F. Lee & Chan, 2018). Judging by the current findings, the strategy had achieved a certain degree of "success" by the late 2010s. Therefore, what the Hong

Kong case suggests is that, even in an open information environment, a resourceful state could shape the online information environment, influence public opinion, and undermine the Internet's critical potential through proactive communication strategies.

With the establishment of a national security law in June 2020 and the continual decline of press freedom, the politics of Internet control has continued to evolve in Hong Kong. In January 2021, a website that shared antigovernment content and personal information of police officers was blocked by broadband companies in compliance with the national security law. It marked the first time a website was censored in association with the law, and it aroused discussions of whether China would impose the "Great Firewall" on Hong Kong (Lau, 2021, para. 5). The national security law could also instill fear in journalists and potential interviewees and make the work of professional media and alternative media more difficult. Associated with these developments, the role of progovernment outlets might change. The notion of inoculation is premised on the prior dominance of online alternative media, and the progovernment online media may take up new roles in the transformed digital landscape. Nonetheless, regardless of how the situation develops, this study has analyzed a specific strategy employed by the political establishment to tame the Internet's emancipatory potential in a period when the more heavy-handed measures were unavailable or unappealing.

Several limitations and possible future research directions can be noted. First, in a cross-sectional survey, the relationship between online media exposure and political attitudes can result from selective exposure. This limitation cannot be dismissed. However, one core finding of this article is the interaction effect between online alternative media and progovernment media on political attitudes, and the interaction effect was applicable only to senior citizens. The crux of the interaction effect is that, among progovernment online outlet consumers, use of alternative media and political attitudes are not related to each other. Inoculation provides the rationale for expecting this pattern and offers a theoretically meaningful interpretation of the findings from the media effects perspective (alternative media no longer influences attitudes when people are inoculated by progovernment media). In contrast, if the relationship between media consumption and political attitudes is entirely a matter of selective exposure, one needs to explain why, among users of progovernment media outlets, relatively liberal individuals somehow refrain from also consuming online alternative media to larger extents. Nevertheless, it is acknowledged that future studies should certainly try to tackle the problematic of causality.

Second, this study did not examine the actual contents of progovernment media. Besides being progovernment in tone, are there any specific characteristics of the progovernment media contents that make them more or less effective? In addition to the contents produced by the media outlets, online users are exposed to the comments associated with the content. In fact, the proliferation of progovernment online comments is a means used by authoritarian states to manipulate public opinion (Roberts, 2018; Zerbeck et al., 2021). How content characteristics and user comments combine to influence users is worth examining.

Third, this study examined age cohort as a factor conditioning the impact of progovernment media outlets because of the significance of the debates about generational differences in Hong Kong. Future studies can certainly examine other possible moderating factors.

Finally, the impact of digital and social media could depend on the actions of major digital media corporations such as Google and Facebook. How they respond to authoritarian governments' requests of content censorship and how they alter the algorithms determining the flow of news content can have important implications on the operation of various online media. Future studies on the effectiveness of political control strategies by authoritarian or semiauthoritarian states can take into consideration the interactions among the state, content-producing media institutions, and digital media companies.

References

- An, C., & Pfau, M. (2004). The efficacy of inoculation in televised political debates. *Journal of Communication, 54*(3), 421–436. doi:10.1111/j.1460-2466.2004.tb02637.x
- Au, K. L. (2017). *Xin-wen zi-you de er-shi dao yin-ying* [Press freedom under 20 shades of grey]. Hong Kong, People's Republic of China: Chinese University of Hong Kong Press.
- Bennett, W. L., & Segerberg, A. (2013). *The logic of connective action*. New York, NY: Cambridge University Press.
- Brundidge, J. (2010). Encountering "difference" in the contemporary public sphere: The contribution of the Internet to the heterogeneity of political discussion networks. *Journal of Communication, 60*(4), 680–700. doi:10.1111/j.1460-2466.2010.01509.x
- Census and Statistics Department. (2016). Thematic Household Survey Report No. 59. Retrieved from <https://www.statistics.gov.hk/pub/B11302592016XXXXB0100.pdf>
- Census and Statistics Department. (2017, November). Use of information technology and the Internet by Hong Kong residents, 2000 to 2016. *Hong Kong Monthly Digest of Statistics*. Retrieved from <https://www.statistics.gov.hk/pub/B71711FB2017XXXXB0100.pdf>
- Chang, K. Y., & Park, J. Y. (2021). Social media use and participation in dueling protests: The case of the 2016–2017 presidential corruption scandal in South Korea. *International Journal of Press/Politics, 26*(3), 547–567. doi:1940161220940962
- Cheng, E. W. (2016). Street politics in a hybrid regime: The diffusion of political activism in post-colonial Hong Kong. *China Quarterly, 226*, 383–406. doi:10.1017/S0305741016000394
- Cheung, G. (2020, February 7). Hong Kong protests spur increase in YouTube political commentary channels. *South China Morning Post*. Retrieved from <https://www.scmp.com/news/hong-kong/politics/article/3049377/hong-kong-protests-spur-increase-youtube-political>

- Chiu, S. W. K., & Jiang, N. T. (2017). The future of telephone surveys in Hong Kong: A comparison of fixed line surveys with cellular phone surveys. *Social Transformations in Chinese Societies*, 13(1), 2–19. doi:10.1108/STICS-09-2016-0016
- Compton, J., Jackson, B., & Dimmock, J. A. (2016). Persuading others to avoid persuasion: Inoculation theory and resistant health attitudes. *Frontiers in Psychology*, 7, 1–9. doi:10.3389/fpsyg.2016.00122
- Compton, J., & Pfau, M. (2009). Spreading inoculation: Inoculation, resistance to influence, and word-of-mouth communication. *Communication Theory*, 19(1), 9–28. doi:10.1111/j.1468-2885.2008.01330.x
- Couldry, N., & Curran, J. (Eds.). (2003). *Contesting media power*. Lanham, MD: Rowman & Littlefield.
- Denisova, A. (2017). Democracy, protest and public sphere in Russia after the 2011–2012 anti-government protests: Digital media at stake. *Media, Culture & Society*, 39(7), 976–994. doi:10.1177/0163443716682075
- Downey, J., & Fenton, N. (2003). New media, counter-publicity and the public sphere. *New Media & Society*, 5(2), 185–202. doi:10.1177/1461444803005002003
- Filer, T., & Fredheim, R. (2016). Sparking debate? Political deaths and Twitter discourses in Argentina and Russia. *Information, Communication & Society*, 19(11), 1539–1555. doi:10.1080/1369118X.2016.1140805
- Flesher Fominaya, C. (2020). *Democracy reloaded*. New York, NY: Oxford University Press.
- Fletcher, R., & Nielsen, R. K. (2017). Are news audiences increasingly fragmented? A cross-national comparative analysis of cross-platform news audience fragmentation and duplication. *Journal of Communication*, 67(4), 476–498. doi:10.1111/jcom.12315
- Fong, B. (2013). State–society conflicts under Hong Kong’s hybrid regime: Governing coalition building and civil society challenges. *Asian Survey*, 53(5), 854–882. doi:10.1525/as.2013.53.5.854
- Gainous, J., Wagner, K. M., & Ziegler, C. E. (2018). Digital media and political opposition in authoritarian systems: Russia’s 2011 and 2016 Duma elections. *Democratization*, 25(2), 209–226. doi:10.1080/13510347.2017.1315566
- Harcup, T. (2013). *Alternative journalism, alternative voices*. New York, NY: Routledge.

- Hill, D. (2019, July 7). As Hong Kong protesters embrace Telegram, when will the messaging app fix one of its biggest security flaws? *Hong Kong Free Press*. Retrieved from <https://hongkongfp.com/2019/07/07/hong-kong-protesters-embrace-telegram-will-messaging-app-fix-one-biggest-security-flaws/>
- Hong Kong Journalists Association. (2018). Candle in the wind: National security law looms over diminishing freedom. *Annual Report 2018*. Retrieved from https://www.hkja.org.hk/ebook/e_Annual_report_2018/mobile/index.html#p=1
- Hyun, K. D., & Kim, J. (2015). The role of new media in sustaining the status quo: Online political expression, nationalism, and system support in China. *Information, Communication & Society, 18*(7), 766–781. doi:10.1080/1369118X.2014.994543
- Jamieson, K. H., & Cappella, J. N. (2008). *Echo chamber*. New York, NY: Oxford University Press.
- Ku, A. (2019). In search of a new political subjectivity in Hong Kong: The Umbrella Movement as a street theater of generational change. *China Journal, 82*(1), 111–132. doi:10.1086/703449
- Lau, J. (2021, January 15). Hong Kong begins Internet restrictions on national security grounds. *The Diplomat*. Retrieved from <https://thediplomat.com/2021/01/hong-kong-begins-internet-restrictions-on-national-security-grounds/>
- Lee, F. L. F. (2015). Internet alternative media use and oppositional knowledge. *International Journal of Public Opinion Research, 27*(3), 318–340. doi:10.1093/ijpor/edu040
- Lee, F. L. F. (2017). Social media, political information cycle, and the evolution of news: The 2017 Chief Executive election in Hong Kong. *Communication & the Public, 3*(1), 62–76. doi:10.1177/2057047317742421
- Lee, F. L. F. (2018). The role of perceived social reality in the adoption of postmaterial value: The case of Hong Kong. *Social Science Journal, 55*(2), 139–148. doi:10.1016/j.soscij.2017.09.003
- Lee, F. L. F., & Chan, J. M. (2018). *Media and protest logics in the digital era*. New York, NY: Oxford University Press.
- Lee, F. L. F., Lee, P. S. N., So, C. Y. K., Leung, L., & Chan, M. (2017). Conditional impact of Facebook as an information source on political opinions: The case of political reform in Hong Kong. *Asian Journal of Political Science, 25*(3), 365–382. doi:10.1080/02185377.2017.1352523
- Lee, P. S. N., So, C. Y. K., & Leung, L. (2015). Social media and Umbrella Movement: Insurgent public sphere in formation. *Chinese Journal of Communication, 8*(4), 356–375. doi:10.1080/17544750.2015.1088874

- Leung, D. K. K., & Lee, F. L. F. (2014). Cultivating an active online counter-public: Examining usage and political impact of Internet alternative media. *International Journal of Press/Politics*, 19(3), 340–359. doi:10.1177/1940161214530787
- Lievrouw, L. (2011). *Alternative and activist new media*. London, UK: Polity.
- Lui, T. L. (2006). *Si-dai xiang-gang-ren* [Four generations of Hongkongers]. Hong Kong, People's Republic of China: Step Forward.
- MacKinnon, R. (2013). *Consent of the networked*. New York, NY: Basic.
- McGuire, W. J. (1961). Resistance to persuasion conferred by active and passive prior refutation of same and alternative counterarguments. *Journal of Abnormal Psychology*, 63(2), 326–332. doi:10.1037/h0048344
- Michaelsen, M. (2017). Far away, so close: Transnational activism, digital surveillance and authoritarian control in Iran. *Surveillance & Society*, 15(3–4), 465–470. doi:10.24908/ss.v15i3/4.6635
- Moss, D. M. (2018). The ties that bind: Internet communication technologies, networked authoritarianism, and "voice" in the Syrian diaspora. *Globalizations*, 15(2), 265–282. doi:10.1080/14747731.2016.1263079
- Mutz, D. (1998). *Impersonal influence*. New York, NY: Cambridge University Press.
- Newman, N., Fletcher, R., Schulz, A., Andi, S., & Nielsen, R. K. (2020). *Reuters Institute Digital News Report 2020*. Oxford, UK: Reuters Institute for the Study of Journalism.
- Papacharissi, Z. (2016). Affective publics and structures of storytelling: Sentiment, events and mediality. *Information, Communication & Society*, 19(3), 307–324. doi:10.1080/1369118X/2015.1109697
- Pearce, K. E., & Kendzior, S. (2012). Networked authoritarianism and social media in Azerbaijan. *Journal of Communication*, 62(2), 283–298. doi:10.1111/j.1460.2466.2012.01633.x
- Petty, R., & Cacioppo, J. (1998). *Attitudes and persuasion*. Boulder, CO: Westview.
- Reuter, O. J., & Szakonyi, D. (2015). Online social media and political awareness in authoritarian regimes. *British Journal of Political Science*, 45(1), 29–51. doi:10.1017/S0007123413000203
- Roberts, M. (2018). *Censored*. Princeton, NJ: Princeton University Press.
- Rod, E. G., & Weidmann, N. B. (2015). Empowering activists or autocrats? The Internet in authoritarian regimes. *Journal of Peace Research*, 52(3), 338–351. doi:10.1177/0022343314555782

- Tang, G. K. Y., & Lee, F. L. F. (2013). Facebook use and political participation: The impact of exposure to shared political information, connections with public political actors, and network structural heterogeneity. *Social Science Computer Review, 31*(6), 763–773.
doi:10.1177/0894439313490625
- Tang, M., & Huhe, N. (2014). Alternative framing: The effect of the Internet on political support in authoritarian China. *International Political Science Review, 35*(5), 559–576.
doi:10.1177/0192512113501971
- Tremayne, M. (2014). Anatomy of protest in the digital era: A network analysis of Twitter and Occupy Wall Street. *Social Movement Studies, 13*(1), 110–126. doi:10.1080/14742837.2013.830969
- Tsui, L. (2015). The coming colonization of Hong Kong cyberspace: Government responses to the use of new technologies by the Umbrella Movement. *Chinese Journal of Communication, 8*(4), 447–455.
doi:10.1080/17544750.2015.1058834
- Tufekci, Z. (2017). *Twitter and tear gas*. New Haven, CT: Yale University Press.
- University Grants Committee. (1996). *Higher education in Hong Kong: A report by the University Grants Committee*. Retrieved from
<https://www.ugc.edu.hk/eng/ugc/about/publications/report/hervw/ugcreport.html>
- Yung, B., & Leung, L. Y. M. (2014). Diverse roles of alternative media in Hong Kong civil society: From public discourse initiation to social activism. *Journal of Asian Public Policy, 7*(1), 83–101.
doi:10.1080/17516234.2013.873342
- Zaller, J. (1992). *The nature and origin of mass opinion*. New York, NY: Cambridge University Press.
- Zerbeck, T., Topfl, F., & Knopfle, M. (2021). The disconcerting potential of online disinformation: Persuasive effects of astroturfing comments and three strategies for inoculation against them. *New Media & Society, 23*(5), 1080–1098. doi:10.1177/1461444820908530