TEMÁTICA LIVRE

Spiral of Talk: expression of opinions about 2019 Hong Kong protests on Facebook

LUODAN PAN

Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio) – Rio de Janeiro, Rio de Janeiro, Brasil.
E-mail: rodanpan@gmail.com.
ORCID: 0009-0003-7174-6600.

ARTHUR ITUASSU

Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio) – Rio de Janeiro, Rio de Janeiro, Brasil.
E-mail: ituassu@puc-rio.br.
ORCID: 0000-0003-4781-1946

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Resumo

A teoria da espiral do silêncio é uma teoria tradicional da Comunicação que preenche a lacuna entre os aspectos micro e macro da opinião pública. Na era da Web 2.0, sob a forte influência da globalização, temos razões para repensar a teoria no ambiente online. Segundo a teoria da espiral do silêncio, as pessoas retêm de se expressar quando acreditam que o clima de opinião é contrário a elas, com o silêncio aumentando ao longo do tempo. Nesse contexto, perguntamos: é possível identificar o fenômeno da espiral do silêncio no ambiente online e no contexto da controversa Lei da Extradição em Hong Kong? O clima de opinião afetou a disposição das pessoas de se expressarem? Para tentar responder a essas questões, escolhemos como objeto de análise a página no Facebook do South China Morning Post, o veículo de comunicação mais influente em Hong Kong. Codificamos manualmente 76 postagens do South China Morning Post no Facebook e uma amostra aleatória de 2 mil comentários, na tentativa de responder às questões. Ao fim, os resultados mostraram que os detentores de opiniões minoritárias se expressaram menos no início da análise, mas começaram a expressar mais suas posições ao longo do tempo, quebrando a espiral do silêncio. Com a análise sobre o contexto do movimento contra a Lei de Extradição em Hong Kong, pretendemos enriquecer a pesquisa empírica sobre países orientais e sugerir novos caminhos de pesquisa sobre a participação política nas mídias sociais.

Palavras-chaves
Espiral do Silêncio; Facebook; Hong Kong; Lei de extradição; Mídias sociais.

Abstract

The spiral of silence is a traditional communication theory that bridges the gap between micro and macro aspects of public opinion. In the era of Web 2.0, under the strong influence of globalization, we have reason to rethink the theory in the online environment. Following the theory of the spiral of silence, people do not express themselves when they think the climate of opinion is contrary to theirs, with silence increasing over time. Therefore, we ask: Is it possible to identify the phenomena of the spiral of silence in the online environment in the context of Hong Kong's anti-amendment law? Has the public opinion environment affected people's willingness to express themselves about the issue? To address these questions, we chose the Facebook page of the South China Morning Post, the most influential media in Hong Kong, as our object of analysis. Within that, we manually analyzed 76 posts on the South China Morning Post's Facebook website and 2,000 public comments. The results showed that minority opinion holders retained their voices initially but began to express their positions over time, breaking the spiral of silence. Based on the analysis of the context of the movement against the Extradition Law in Hong Kong, we aim to enrich empirical research on Eastern countries and suggest new avenues of research on political participation in social media.

Keywords
Spiral of Silence; Facebook; Hong Kong; Extradition Bill; Social media.

Introdução

This qualitative study on politics and communication verifies the traditional theory of the spiral of silence (SOS) on social media. It observes the climate of public opinion on Facebook in Hong Kong and how it influenced the self-expression of individuals. We review the traditional theory, revisit its components and premises in the context of digital media, and empirically examine the ambiance around the China Morning Post Media on Facebook concerning 2019 Hong Kong's controversial extradition bill.

The theory holds that under the influence of the climate of public opinion, the party that believes they have the majority view on controversial topics is willing to express its opinions. At the same time, individuals who consider themselves in the minority are less likely to express their views publicly to avoid social isolation. After a sustained period, the distribution of opinions shifts to a so-called majority opinion. In the age of digital media, we see complexity, multiplicity, variety, and crosscurrents in political communication (Blumler, 2016). Hence, we must reconsider this traditional theory.

The study chose the 2019 Hong Kong Anti-Extradition Movement as a case study to observe the South China Morning Post (SCMP) and the public opinion environment under its influence on the digital platform Facebook through methods such as documentary analysis and qualitative analysis. After the Hong Kong movement in 2019, we provide an analysis and assessment of the context. Even though part of China, Hong Kong has its system of government, including legal, economic, and financial affairs. It has a unique culture and a common language (Cantonese), and the media maintains high autonomy and independence.

We conducted an observational study on the Facebook page of the SCMP, a traditional media outlet in Hong Kong, manually analyzing 76 posts and 2,000 public comments. We sought to understand two questions by examining whether an effect exists: In selected contexts, (RQ1) under what circumstances do people engage in online discussions, and (RQ2) whether the climate of social media contributes to democratic talks online.

This study provides insights and reflections on the public opinion ambiance and freedom of expression on the Internet by observing the phenomena and dynamics of this media effect theory. Many existing studies focus on the application of SOS on social network sites (SNSs) in the context of Western countries, and only some have studied SOS on SNS in Eastern contexts. We aim to enrich the empirical research by studying the Hong Kong case and suggesting new avenues of research on political participation in social media.

The Spiral of Silence Revisited

The Spiral of silence is a theory of politics and mass communication. It holds that under the influence of the climate of public opinion, the party with the majority view on controversial topics is willing to express its opinions. At the same time, individuals who consider themselves in the minority are less likely to express their views publicly to avoid social isolation. After a sustained period, the distribution of opinions shifts to a so-called majority opinion.

The traditional theory is based on three assumptions: The first assumption addresses the effect of mass media on people's perceptions of public opinion, the second assumption deals with the impact of congruency between perceived public opinion and people's own opinions on willingness to speak out in public, and the third assumption regards the effects of this congruency on individuals' attitudes and behavior, which then add up to a shift in public opinion on the macro level (Eilders & Porten-Cheé, 2015). As the spiral of silence theory combines micro-level influences with macro phenomena, it lends itself to applying the concept of bridging the macro-micro divide (Schulz & Roessler, 2012).

People use a *quasi-statistical sense* at the micro level to assess which opinions are socially

acceptable and which may lead to public sanctions (Thurre et al., 2020). This perception was, at the time, influenced by media coverage, with the mass media representing public opinion, although this perception did not necessarily correspond to the actual view (Eilders & Porten-Cheé, 2015). In macroscopic phenomena, individual compliance ultimately leads to changes in public opinion, and the willingness to speak out is considered a key variable in theory (Roessing, 2009; Scheufle & Moy, 2000).

The SOS theory suggests that people monitor the climate of opinion through the media and other sources of information about their social environment for fear of isolation. Based on the above assumptions, this phenomenon develops through three stages: 1) the influence of the mass media on public consciousness and the emergence of an opinion climate (Noelle-Neumann, 1993); 2) the public's perception of the climate of opinion and the assessment of the consistency of public opinion with their views, and 3) the impact of this climate of opinion on people's behavior and attitudes. It is worth noting that the theory emphasizes the long-term effect of consonant and cumulative media coverage rather than the short-term impact of individual stories. Given that the mass media has been a constant source of social information for the public, particularly public opinion, it is assumed that consonant and cumulative media messages influence individuals' attitudes and behavior (Eilders & Porten-Cheé, 2015).

The SOS research initially focused on traditional media (Cain, 2020), predicting that the extent to which a person consumes traditional media shapes their perceptions of public opinion. Subsequently, it affects the willingness to express views in public that are deemed inconsistent with public opinion (Noelle-Neumann, 1993). Internet communication exhibits different dynamics, diversifying the media channels from which people might gather information and changing how people express their views.

Climate of opinion and public perception

Noelle-Neumann argues that the climate of opinion is based on people's ability to perceive changing attitudinal behavior and uncertain rules. When a topic of discussion gradually gains public attention, relevant ideas can be seen everywhere, and people have a dynamic perception of the trend of the topic opinion, which reflects the climate of opinion (Noelle-Neumann, 1993). In traditional theory, Neumann proposed the concept of a return to a powerful mass media (Noelle-Neumann, 1974).

We live in the fourth era of political communication that is very different from the previous one, where relative uniformity, coherence, and simplicity once prevailed; now, everything seems to be laced with complexity, multiplicity, variety, and crosscurrents (Blumler, 2016). In this context, we see the composition and dynamics of the climate of opinion being influenced by social media features. These changes include the evolution of the media itself, the phenomena brought about by technological platforms, and the interaction between media and public opinion.

Traditional theory holds that people, driven by fear of social isolation, permanently observe the environment to gauge the climate of social opinion. The mass media and social contacts are channels through which they obtain information, and the quasi-statistical sense of individuals results from information acquisition.

It has been acknowledged in psychology that people perceive their social environment through schematic categorizations (e.g., good versus evil, us versus them) (Fiske & Taylor, 2013). The quasi-statistical sense of public opinion is mainly equivalent to a proportional comparison of individuals in such a patterned classification (e.g., majority versus minority), but this does not represent the distribution of actual opinion (Scheufle & Moy, 2000). The gap between the two (i.e., errors in perception) becomes a vital determinant of the SOS phenomenon, primarily with individuals' cognitive biases in probabilistic judgments (Kahneman & Tversky, 1979) and the limited scope of opinion monitoring (Sohn & Geidner, 2016).

To observe public opinion, audiences in the offline world mainly rely on the tone of mass media.

In contrast, online audiences have more clues to infer public opinion (Eilders & Porten-Cheé, 2015). These prompts include likes, shares, and user comments, which reflect other users' responses to the media content and indicate its popularity. Popular cues enhance people's perception of the environment and become complementary information to the climate of opinion.

Public's Reaction

The willingness to speak up is a critical variable in empirical studies (Roessing, 2009; Scheufle & Moy, 2000). By now, a key question in developing SOS research is whether people are willing to comment on controversial topics online and offline.

Online empirical research is becoming increasingly abundant, and the results are diverse. Some studies showed that users are likely to view the internet as a place for equal participation, and people are more likely to engage in a hostile atmosphere in virtual chats than in face-to-face discussions (Ho & McLeod, 2008). Moreover, social media provides more public ways to express opinions, such as clicking, liking, sharing, or setting the visibility level. The expression of this mode does not require much input (Eilders & Porten-Cheé, 2015) and, to some extent, avoids the fear of isolation. Some studies show that people adopt expression avoidance strategies and manipulate privacy settings, leading to a gentle spiral (Xiao, 2020). In the online world, some research suggests that anonymity can reduce people's fear of isolation (Ho & McLeod, 2008; McDevitt et al., 2003).

However, some evidence supports the exacerbation of silencing in online conditions (Gearhart & Zhang, 2014; Kim et al., 2014; Nekmat & Gonzenbach, 2013; Woong Yun & Park, 2011). As for the reasons for silence, many analyses have been made in the existing studies. Some recent studies have used the term 'self-censorship' (Gearhart & Zhang, 2014; Kwon et al., 2015) instead of quasi-statistical sense, and these studies are more biased towards exploring the reasons for silence, which include: 1- extreme speech (Beatriz Fernández et al., 2020; Woong Yun & Park, 2011); 2- the importance of issues to the individual (Alexandre & Aguiar-Conraria, 2021; Krosnick et al., 1993; Xu et al., 2021); 3- adherence to social norms (Stockmann & Luo, 2019); and 4- age differences (Beatriz Fernández et al., 2020).

Based on the above discussion, the empirical part of this study was positioned as a Hong Kong case study, observing the SCMP online media on Facebook and the public opinion environment under its influence through methods such as literary analysis and quantitative analysis. In the next section, we move on to the Hong Kong case study, an analysis of the anti-amendment movement and the social context of Hong Kong. As the case took place in 2019, the contextual research of Hong Kong focuses on the timeline of 2019.

Case Study

The fuse of the incident stemmed from a murder case in Taipei. On December 13, 2018, the Taipei Local Public Prosecutor's Office formally wanted Hong Kong citizen Chen Tongjia to accuse him of murdering his girlfriend, Pan Xiaoying, traveling in Taipei in February of the same year. However, because there is no extradition agreement between Hong Kong and Taiwan, it is impossible to apply to Hong Kong to extradite him for trial. In February 2019, members of the Legislative Council of Hong Kong attended a press conference with the mother of the victim of the murder in Taiwan. The victim's mother hoped Hong Kong could amend the law to plug the loophole. On February 13, the Hong Kong government officially announced that it would amend the *Fugitive Offenders Ordinance and Mutual Legal Assistance in Criminal Matters Ordinance*, by deleting the original provisions stipulating that the extradition legislation does not apply to the restrictions of Mainland China, Macau, and Taiwan. The amendment has caused some opposition from Hong Kong. As the bill allows the extradition of Hong Kong criminal suspects to mainland

China for trial, opponents worry that Hong Kong's status as an independent jurisdiction under *one country, two systems* will be weakened.

On March 31, 2019, Hong Kong held its first parade. Organizers said 12,000 people took part in the march. Things continued to ferment, and by June 9, groups opposing the proposed amendment had staged their third and largest march. Organizers said about 1.03 million people took part in the parade. The government did not withdraw the bill in the early days of the demonstrations, which turned violent in many places as the demonstrations heated up. Under pressure from public opinion, in September 2019, the government announced the bill's withdrawal.

Social Media in Hong Kong

Due to the rapid development of network technology, social media has diversified, and different user preferences have been formed in other regions. The most popular ones in mainland China are Weibo, WeChat, and blogs. In Hong Kong, Facebook, YouTube, Twitter, and Instagram, and political groups are especially keen on Facebook and YouTube (Zhang, 2016). Facebook has hegemony in Hong Kong, where the local media have established homepages as their essential channel. Behind social platforms are commercial interests and the struggle for the right to dialogue. Hong Kong has traditional media, which is often conservative regarding the media system. Still, the online realm is characterized by pluralism and integration with civil society and provides a platform for coordinating alternative information, public discourse, and collective action. (Yung & Leung, 2014).

Hong Kong's political system and media freedom

One country, two systems is a constitutional principle describing the governance of Hong Kong and Macau since they became regions of China in 1997 and 1999, respectively, meaning there would be only one China. Still, these regions could retain their economic and administrative systems. At the same time, the rest of Mainland China uses socialism with the Chinese characteristics system. Under the principle, each of the two regions could continue to have its governmental system and legal, economic, and financial affairs, including trade relations with foreign countries, all independent of the Mainland. As a Special Administrative Region, Hong Kong has its own mini-constitution—"Hong Kong Basic Law. Even though Hong Kong's sovereignty was returned to China in 1997, the city-state retains a relatively large degree of autonomy under China's one country, two systems principle (Chan, 2016). The Hong Kong media maintains high autonomy and independence, using its fourth power to monitor the government (Huang & Cai, 2018). According to Reporters Without Borders' 2019 media freedom ranking in all regions of the world, Hong Kong media ranked 73rd, American media ranked 48th, and Brazilian media ranked 105th.

Framing analysis

Researchers frequently use framing methods to analyze media reports on social movements, focusing on the relationship between public policy issues in the news and public perceptions. Framing analysis expands on agenda-setting research by examining what people discuss and how they think and talk about news issues.

Journalists often shape audience perspectives on news issues by emphasizing specific aspects of the information (Entman, 1993; Vreese & Boomgaarden, 2003). Framing involves selecting aspects of perceived reality to make them more salient in a communication text, promoting a particular problem definition, causal interpretation, moral evaluation, and treatment recommendation (Entman, 1993).

On the other hand, some research defined the media frame as a particular way in which journalists

compose a news story to optimize audience accessibility (VALKENBURG et al., 1999). Using these frames by journalists implies specific decisions about the elements or keywords to be selected, highlighted, or excluded to build a discourse (Ryan et al., 2001; Scheufele, 2006). About this journalistic strategy for building messages, Maher (2001) posits that framing implies relationships among elements in a message because those elements have been organized by a communicator (Muñiz et al., 2015).

Qualitative Analysis Methods of Posts

In this part, we will observe the SCMP's Facebook homepage, examining whether the spiral of silence phenomenon occurs on the platform. Through observational and explanatory research, we will analyze the public opinion environment in a specific media environment in Hong Kong. We implemented a dynamic qualitative observation method, which means that the study does not rely on the perceived public opinion environment but uses the actual public opinion environment to measure whether the expression of the public depends on the environment. We do not predict in which direction the silencing effect will develop.

First, to understand the changes in the climate of public opinion, we will observe the three stages of the spiral of silence mentioned in the theory section. In this process, we aim to answer two questions: (RQ1) Under what circumstances do people engage in online discussions, and (RQ2) Does the climate of social media contribute to democratic talks online?

We will extract two waves of data to observe the SCMP online media homepage: 1- Opinions of the media and 2- Opinions of users. To monitor the changes in a climate shaped by the media and the user's perception or expression of willingness under the influence of the media environment for some time, we select the content of two different moments for trend analysis.

SCMP is an English-language newspaper in Hong Kong established in 1903. It is a traditional Hong Kong newspaper owned by Alibaba Group. The newspaper's circulation has been relatively stable - an average daily circulation of 100,000 in 2016. In a 2019 survey by the Chinese University of Hong Kong, the SCMP was regarded as the most reliable paid newspaper in Hong Kong. After being acquired by Alibaba, the new owner announced that the fee barrier would be removed. Subsequently, the paywall was released on April 4, 2016. By doing so, SCMP aimed to increase its readership globally and allow the global community to access its Chinese news.

The media selected is fulfilling the following criteria: (1) has an extensive reach among the audience and agenda-setting power on politicians and other media; (2) represents both up-market and mass-market journalism; and (3) includes different political leanings.

As a traditional Hong Kong media, the SCMP uses English as its reporting language. From 1984 to 1997, Hong Kong was under British colonial rule. Before 1997, English was the MOI in secondary schools in Hong Kong. According to data from the Census and Statistics Department of Hong Kong Special Administrative Region, among the population studying full-time courses in Hong Kong institutions in 2021, more than 90% of people aged 18 to 24 can read and write Chinese and English. Among the working population, this proportion exceeds 80%. The literacy rate for people aged five and above is 97%. Hong Kong is a region where English is the language of daily communication.

We will try to understand the media's attitude towards reporting such cases during the movement. Based on the above case study, in those movements, the main disputes in media content that have been observed are the following three aspects:

1- Opposition to the proposed amendments or support the proposed amendments

2- People think the police are brutal or People support police

3- Protesters persecuted are innocent, or Protesters have violent acts

In the theoretical part, we mentioned the background and timeline of the Hong Kong movements.

The protests began on March 31, and the Hong Kong Government announced on September 4 that it would withdraw its amendment. On June 12, demonstrators clashed with the police in the protests, and social criticism of police law enforcement began to appear. After June 12, the violent conflict became more and more serious. In October and November 2019, some demonstrators occupied colleges with homemade weapons, escalating the contradictions, and social problems began to shift. Important events took place on June 12 and September 4. For example, millions of people marched against the approval of the legislative amendment; the police began to use many tear gas canisters, and Hong Kong leader Carrie Lam announced the withdrawal of the legislative amendment. During this period, the three disputes mentioned above were discussed most intensely. Observations of media posts on Facebook show that after these events, a series of reports and social discussions were triggered.

Our study includes two waves for temporal comparison based on these three disputes. We used two different periods, the first wave from June 12 - 18, 2019, and the second wave from September 4 - 10, 2019. 2 These periods were deliberately chosen to investigate the exact time frame across Hong Kong movement to enhance comparability, as well as to allow for the comparison of situational factors over time. Through the data research of the two waves, we can understand the changes in the context of the media and the public at different times and thus observe the spiral of silence on Facebook.

With the help of Facepager, we gathered posts of 76 news stories published by the South China Morning Post (SCMP) in the data collection section. Since our study focused on how Facebook users expressed Hong Kong movement discourse, we narrowed the initial sample of 76 posts to news reports that mentioned the Hong Kong movements. Thirty-seven posts were identified as relevant to this study's focus during this process. Among them, in the first wave (06.12.2019 - 06.18.2019), we retrieved 44 posts through Facepager, of which 20 were related to the Hong Kong movements. During the second wave (09.04.2019 - 09.10.2019), 32 posts were retrieved through Facepager, of which 17 were about the Hong Kong movements. We analyzed these 37 posts in the data analysis section to determine the climate of opinion dominated by media content and popular clues.

To observe the user's expression, we sorted the number of comments from high to low, selected the top 5 news posts in the number of comments in each period, and analyzed the user comments below these posts. In this part, we observed a total of 10 posts. We randomly selected 200 comments per post, for a total of 2000 comments, and parsed them to understand how users felt about this news and the Hong Kong movement.

Firstly, this study begins with observing the climate of opinion shaped by the media. Therefore, we will classify posts according to the rules in Table 1. There are three indicators for evaluating a position: (1) Attitude towards the amendment, (2) Attitude towards the police, and (3) Attitude towards the behavior of protesters. If a post clearly expressed opposition to the amendment/support movement, the attribute of the amendment to this report is "-1". If a post clearly describes the violence of the police, then the post's attitude towards the police is "-1". If a post mentions that the protesters are being persecuted innocently, then the post's attitude towards the protesters is "-1". Otherwise, the corresponding attribute is "1". In addition, if a post mentions two standpoints simultaneously, such as supporting police and police violence, fill in "*0" in the police field; if none said neither, then fill in "0".

Table 1 – Coding Categories of Posts

Position	-1	1	0	*0
The proposed amendments	Support withdraw amendments	Support amendments	None mentioned	Both mentioned
Police	Police brutality	Support police	None mentioned	Both mentioned
Protesters	Persecuted innocently	Have violent acts	None mentioned	Both mentioned

Source: collected manually in May 2020

When analyzing the content of the comment area, we use the classification and coding of the content to understand the users' attitudes toward the above three topics.

Results

The opinion of the media (SCMP) about protests

Based on the collection and analysis of the contents published by the SCMP on Facebook, 37 (48.6%) of the 76 posts are related to the Hong Kong Movement. Of the 44 posts in the first wave, 20 (45.5%) were related to the Hong Kong Movement. Of the 32 posts in the second wave, 17 (53.1%) posts are related to the issue of HONG KONG PROTESTS. Of those posts, 18 (48.6%) posts discussed Hong Kong's amendments and demonstrations, 11 (29.7%) posts talked about the police, and 11 (29.7%) posts talked about protesters. Some news stories talked about two or three topics at the same time.

According to the established coding rules in Table 1, we analyzed 37 posts. Add up the values coded in each wave and divide by the total number of posts published by the SCMP during this period to quantify the media's attitude. We add the corresponding values of posts in each wave and divide by the total number of reports during this period to obtain the media's opinion and polarization on a specific topic. For example, if the proposed amendments issue's value is -1 in the first wave, all the media content during this period supports withdrawal amendments. If the value is 1, all the media content during this period supports amendments. If the value is 0, it means that the range of the media during this period is relatively neutral. Similarly, if in the first wave, the value of the Police issue is -1, all media content during this period is considered Police brutality. If the value is 1, all media content during this period supports the police. If the value is 0, it means that the range of the media during this period is relatively neutral. In the opinion of the Protesters issue, if the value is -1, the media content during this time is that the protesters are persecuted innocently. If the value is 1, it means that the range of the media during this period has emphasized that the demonstrators have violent acts. If the value is 0, the press content during this period is relatively neutral. Before conducting our analysis, we predicted from the literature that pro-government opinions were more inclined to a value of 1 while opposing amendments or the government were more prone to -1. We got the results in Table 2.

Table 2 – Media's opinion about Hong Kong movements

Position	The proposed amendments	Police	Protesters
06.12-06.18 (N1=20)	-0.2 (n1=11)	-0.176 (n1=3)	0 (n1=3)
09.04-09.10 (N2=17)	-0.294 (n2=7)	-0.353 (n2=8)	0.235 (n2=8)

Source: collected manually in May 2020

N is the total number of posts related to the Hong Kong movements published by the media during this period, and n is the total number of posts published on related topics. According to the set rules, we derived media opinion climate data, as shown in Table 2. We visualize Table 2 and get Chart 1.

Chart 1 – Climate of opinion on Hong Kong's movement – Media SCMP
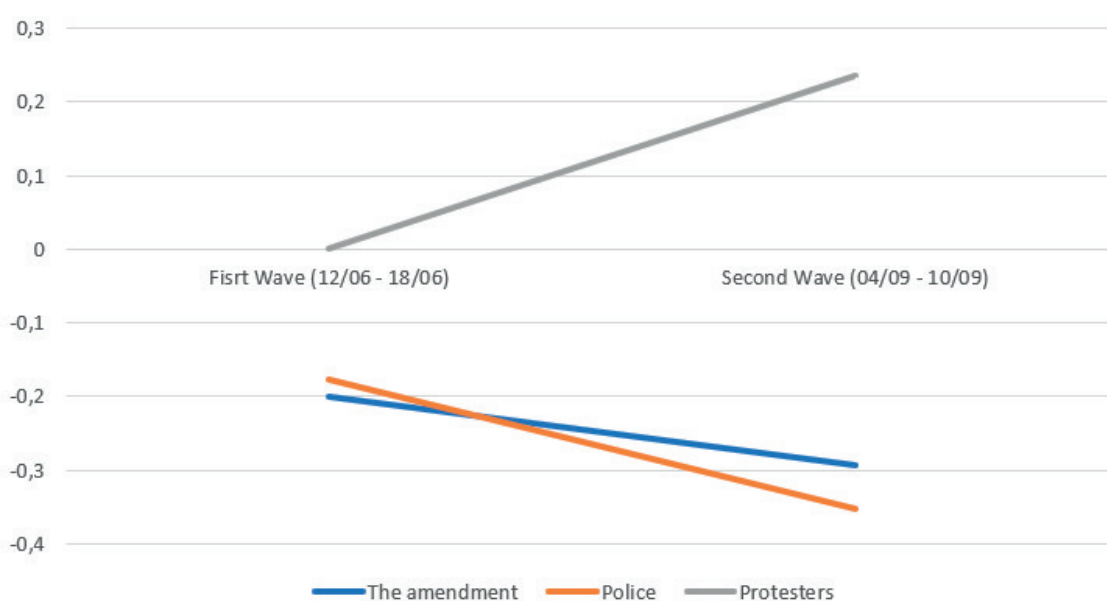
Source: collected manually in July 2020

Compared with the first wave, the media released seven live posts on demonstrations in June, which received a lot of participation (including views, reactions, and comments). There were no live posts in the second wave. The content turned into opinion-based posts, including violent demonstrations and conflicts between protesters and police, which were the most concerned users. The attitude towards the amendment became more negative. No more posts supported the amendment during the second period, and the attitude towards the amendment fell from -0.2 to -0.294. The accusation of police use of violence has been shown in posts since June 13, but there are fewer related posts in the first wave and more in the second wave. Except for two Neutral-view posts that defend the police, the others are all about criticism of the police, and the attitudes toward the police dropped from -0.176 to -0.353. On June 13, Carrie Lam's interview post accused the demonstrators of violent behavior. The media didn't discuss the protesters in the first wave so much, but the two sides' views were presented. In the second wave, as the discussion on the demonstrators increased, posts on violent demonstrations gradually gained the upper hand, and the attitude towards the demonstrators rose from 0 to 0.235. Based on the three indicators of disputes, the media's opinions about arguments became extreme (Chart 1).

In general, from the analysis of the content of the media's posts, we can conclude that the media's

coverage of the SCMP is biased towards opposing the government's proposed amendments, criticizing the police's violent law enforcement, and criticizing the demonstrators' violent behavior. Over time, related reports have become increasingly polarized. In addition, in the data analysis section, we also made statistics on the like buttons of associated posts and selected the most popular buttons of each post for analysis. In February 2016, Facebook extended the commonly known like button and added five more options (love, haha, wow, sad and angry). In April 2020, Facebook expanded the "care" option. According to Smieško (2016), the reaction buttons are human behavior substitutes in the digital world, allowing users to articulate their feelings wordlessly. The setting of these new functions helps users observe the climate of opinion and supports studying the SOS effect online.

An analysis of the participation of users

In the evaluation stage of user expression, we use Facepager software to extract the 2000 comments mentioned above and conduct, classify, and count these comments. By observing 2,000 comments on ten posts from two waves, this study ranked the content of comments as follows:

1- Oppose the amendment/support the movement or think that the movement inspires people

2- Blaming Hong Kong's Government/Chinese Government/Leader

3- Bless Hong Kong or express passion for Hong Kong

4- The neutral point of view, such as descriptions of the movement or vague stances

5- Criticize police violence

6- Criticize Violent Demonstrations/Student Demonstrations

7- Support amendments/oppose movements

8- Support the government/Leader/ police (No voice supporting the Hong Kong police appeared in the posts in the first wave)

9- Question the news as Fake News

10- Other content, including irrelevant comments, unreadable content, etc.

According to the trend of media opinions, we mainly screened the content of comments and obtained the results in Table 3. Visualizing this result, we can draw the trend change in Chart 2.

Table 3 – Categorization of Comments - SCMP

	First wave (n=1000)		Second wave (n=1000)	
Oppose the amendment	423	42.3%	46	4.6%
Blaming Hong Kong's government	93	9.3%	66	6.6%
Bless Hong Kong	210	21%	6	0.6%
The neutral point	159	15.9%	300	30%
Criticize police	13	1.3%	76	7.6%
Criticize violent demonstrations	3	0.3%	218	21.8%
Support amendments	8	0.8%	0	0%
Support the government	17	1.7%	85	8.5%
Criticism of Fake News	0	0%	45	4.5%
Other content	74	7.4%	158	15.8%
Total	1000	100%	1000	100%

Source: collected manually in August 2020

Chart 2 – Categorization of comments – Media SCMP
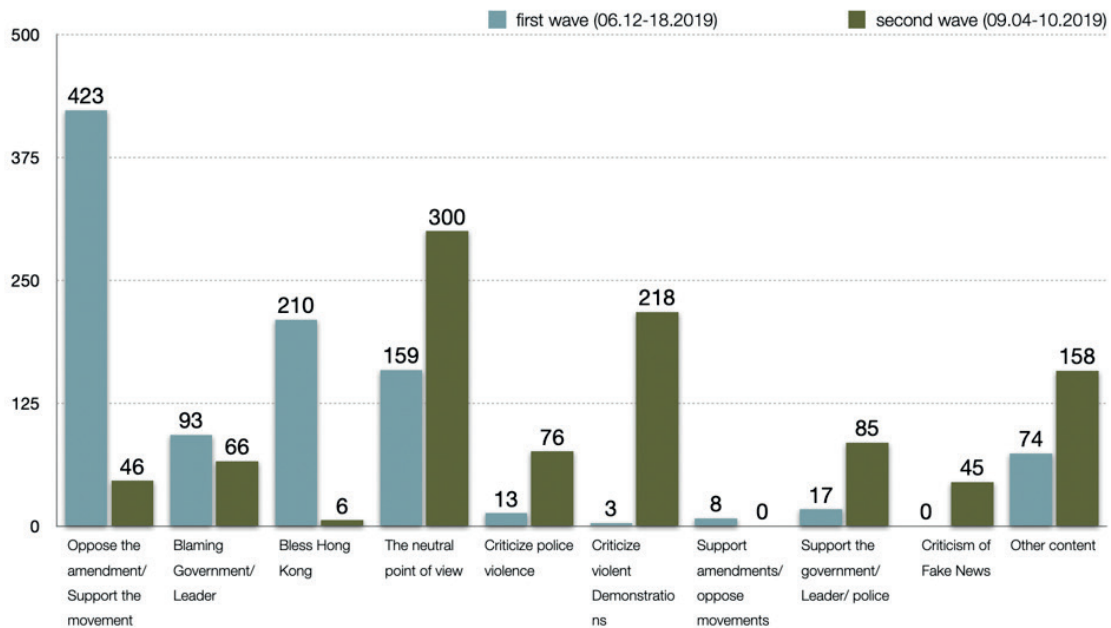
Source: collected manually in August 2020

Analyzing and comparing the content of comments, we found that users' opinions have become diversified and scattered. The main types of comments in the first wave are Opposition to the Amendment, Bless Hong Kong, and Neutral comments. These three categories accounted for 79.2% of the comment samples. The main types of comments in the second wave were neutral comments, opposition to violent demonstrations, and others. These three types account for 64.6% of the comment sample. A few people began to express their opinions. The support rate for the government rose from 2.5% to 8.5%, and the criticism of the government fell from 9.3% to 6.6%. In the second wave, the number of comments Supporting the movement decreased significantly, from 42.3% to 4.6%. Comments Against Violent Demonstrations increased significantly, from 0.3% to 21.8%. Comments Criticizing Police Violence rose from 1.3% to 7.6%. The comments with Neutral opinions increased from 15.9% to 30%.

To observe the influence of media opinions on user comments, we extracted comments criticizing the police, protesters, and the government from the existing comment data (Chart 3) to compare with the trend of media opinions. Among them, there was a clear upward trend in comments against violent demonstrations. At the same time, attitudes toward the government showed a slight improvement, and there were slightly more comments criticizing the police.

Chart 3 – Climate of Opinion on Hong Kong's Movement - Users' Comments
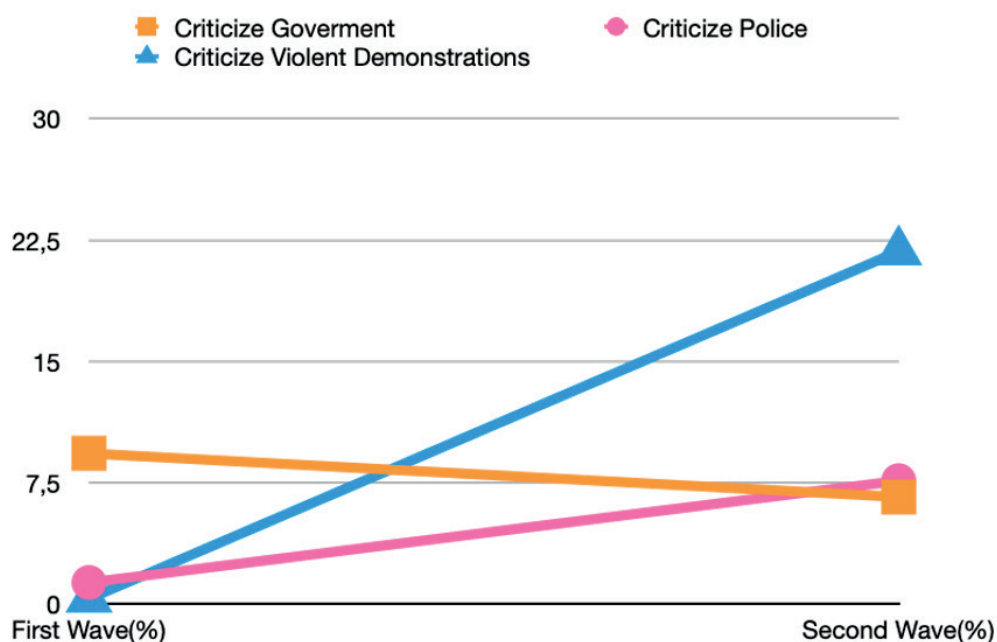
Source: collected manually in July 2020

We considered the characteristics of Facebook and, in addition to analyzing users' comments, we also collected data on users' reactions. These data can directly reflect the users' attitudes toward news stories. The reaction buttons are human behavior substitutes in the digital world (Smieško, 2016). The reaction button allows users to react to a post, comment, or share to express their feelings (Pool & Nissim, 2016). We extracted the reactions of those ten posts (Table 4).

Table 4 – Top 5 "Comments" Stories (n = 37) in two waves

2 Top 5 "comments" news stories	Total comments	Reactions related
12/06/2019 - 18/06/2019		
Hong Kong's streets become black as people protest the contentious suspended extradition bill.	5848	like + love
Watch live as police and protesters clash outside Hong Kong's legislature after a fresh show of defiance against a controversial extradition bill.	2277	like + love
Watch as the massive street protest against a proposed extradition law in Hong Kong continues into the night.	1317	like + love
Hong Kong's leader speaks to the press after massive protests and controversy over a proposed change to the city's extradition laws.	951	like + angry

Watch live from Hong Kong's ex-tradition bill protest as police and protesters clash on the streets.	795	like + sad

04/09/2019 - 10/09/2019		
Protests on Sunday spiraled into chaos as police and demonstrators clashed in the heart of Hong Kong.	1754	like + sad
More than 100 pupils took part in a protest outside a Hong Kong school after claims it would expel students and staff taking part in a class boycott.	722	like + sad
Woman says she needed stitches on her head after Hong Kong police beat her at Siu Hong MTR station, and she now supports probe into their use of force.	663	like + angry
Hong Kong police dismiss accusations of excessive force at Prince Edward MTR station and obstructing press during bus arrests in Kowloon Bay.	406	like + angry
Hong Kong leader Carrie Lam was unmoved by tycoon Li Ka-shing's call for 'mercy' on anti-government protesters.	283	like + angry

Source: collected manually in August 2020

Among the first wave, the top 3 news stories are all live videos of peaceful demonstrations, and users' attitudes towards these contents are like and love. One piece of news relates to the leader's speech, and the users' attitudes are like and angry. One other piece of news is related to the confrontation between the police and the protesters, and the users' attitudes toward this content are like and sad.

Among the second wave, three news stories relate to statements of policies and leaders; the users' attitudes toward these contents are like and angry, one piece of news is related to violent demonstrations, and the users' attitudes are like and sad. One refers to students' strikes, and users' perspectives are like and sad.

Discussion

To test the SOS effect on Facebook, we intended to explore when and how people participate in discussions through social networks and the possible impact of the media environment on users. For this purpose, qualitative research was conducted to observe the potential opinion cues (media content and user-generated comments, likes) and explore how recipients can issue views, opinions, and actions under these cues.

We investigated user engagement in the posts through case studies to observe online public opinion. Regarding the climate of opinion through the case study, the findings showed that the greater the perceived opinion congruence with Facebook users, the more willing they were to participate in this discussion. This can be seen from the ratio of users' reactions to posts and comment types. When users

have more angry emotions about a piece of news (usually those reports about police or government), and the information also causes a lot of criticism in comments; when users show more sad emotions about one post (usually those reports about protesters or riot scenes), more neutral comments and doubts appear in the comments; when a post has more love emotions (usually are live video on movements), there have more supportive voices appear in the comments. In other words, when subjects perceived that the prevailing norm or opinion deviated from their own, they were more inclined to keep silent and not contribute to the discussion (Noelle-Neumann, 1974).

However, as the event developed, the expression of minority opinions was accompanied by the climate of opinion led by the media. When the public and media have more in-depth political discussions, as the importance of issues and the knowledge of the public about the problems become more in-depth, the few people who insist on their opinions are more willing to express themselves. This can be seen from the changes in the comments. After analyzing the comments in the two waves, the comments supporting the police and the government are always a tiny part. However, in the second wave, the comments supporting the police have increased significantly. On the contrary, in the first wave, the comments supporting the movements and opposing the amendment (majority) accounted for 42.3% of the total sample. In the second wave, it dropped significantly to 4.6%. This change is inconsistent with the climate of opinions created by the media. In the second wave, the media's opposition to the amendments was more precise, and it also pointed more frequently to the violence of the police. The tendencies of climates between media and followers are different. This can explain that in the context of the SCMP's page, the vocal minority still feels comfortable expressing discourse referring to Hong Kong's movement. Even though this finding goes against what the spiral of silence theory would predict, some previous studies may explain such results. The concept of the spiral of silence offers the possibility to change our society for those who are not afraid of isolation or have overcome isolation.

In addition, non-campaign political issues and users participating in discussions online are affected by globalization. Many cases (such as the Hong Kong movements) have attracted the participation of many non-local netizens. For example, in the first wave, many live video posts on demonstrations exist. Many comments on these posts about supporting movements and Hong Kong were from other countries. The comments that helped activities were the majority. However, in the comments on posts that are not about the demonstrations, the comments of foreign users have been significantly reduced. At the same time, other comments have increased, the types of comments have diversified, and minority opinions have also been expressed more. In this context, we found that the degree of participation does not wholly indicate the democratization of political discussions. When the discussion environment becomes more diverse and in-depth, the more the public understands issues, the more they are willing to speak up. It has been pointed out that research on digital media and politics has tended to employ the engagement gaze as a challenge, which is worth rethinking nowadays (Chadwick, 2020).

This result also shows that people are paying more attention to their opinions on social media, are more willing to maintain their views, and have less trust in the media and politics. From the case of SCMP, we can see that in the second wave, more users questioned the authenticity of the news. Users began to question whether the information was fake due to the problem of disinformation in recent years. In a sense, such questioning is an expression to defend one's views. On the other hand, such comments generated require digital media to be more objective and transparent.

Based on this result, we propose an assumption: When a controversial topic lasts longer in social media, people's views become more deeply and less influenced by the press. The media generally shapes people's initial understanding of things. As they get more facts about events, their independent thoughts grow, and the influence of the media decreases. This hypothesis requires further thought and empirical research.

It is evident from this study that the climate of opinion observed allows a minority of people to

express their opinions. As the media covered events deeply, people's views became more diverse. It shows that the climate of opinion shaped by the media is conducive to the free expression of people's points. The study needs to be more representative, considering it only observes the SCMP's Facebook page at a specific time. Nevertheless, this qualitative research method can bring us insights into how to build our space for liberty discourse. Hong Kong is one of the most open cities in China, unlike other regions; it has its own legal, institutional, and economic structure. Despite the differences in political system and culture, in the context of the climate of opinion shaped by the media at the time, most users involved in commenting in the media were willing to discuss the issue directly. The people had the opportunity to express their opinions and had the will to participate politically. At the same time, we have seen that the live-streaming format has attracted many political participants. This new form of participation can attract many participants, regardless of spatial and national divides. Still, the quantity of this participation does not equal the quality of political participation, and the opinions of commenting users are relatively homogeneous.

It is worth considering how the media should build the discursive space in which we live while expanding its influence. This study shows that the media should consistently dig into the facts and provide space for public discussion. For those who hold minority views in the online media in Hong Kong, it shows that their statements and attitudes (through actions such as liking) can likewise impact the climate of opinion. To defend their space for discourse, this segment should express themselves civilly and courageously, even if it is clicking buttons.

Conclusion

The current research still has limitations, requiring more in-depth thinking and verification. To meet the preconditions of the silence spiral theory, we selected influential media homepages to test this effect. The methodological research focuses mainly on the first and third stages and observing phenomena. An analysis of the second stage and the reason for the silence requires psychoanalysis. In the future, questionnaires, interviews, and other forms can be used to intuitively understand online users' perceptions and attitudes towards participation and speech environment. The method section also selects the Facebook platform, and the scope of the study was relatively narrow. Future validation of the spiral of silence theory could be carried out on more platforms and in different contexts, with similar studies on more regions and countries to form a comparative study, thus providing a more comprehensive clue to this traditional theory. It may expand our knowledge and understanding of the cultural and institutional contexts of the East.

Although, under the "one country, two systems" system, Hong Kong enjoyed a high degree of autonomy during the anti-extradition movement, Hong Kong's media freedom was comparable to international standards. Considering the prominent position of the SCMP's Facebook page, the event attracted many foreign readers. Not only do they consume content, they comment and react directly to the news. In the future, under the strong influence of globalization, we need to consider the extent to which foreign opinions affect a country's political climate.

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Luodan Pan is PhD student in the Social Communication Department at the Pontifical Catholic University of Rio de Janeiro (PUC-Rio). In this article, she contributed to the conception of the research design; development of theoretical discussion; data interpretation; support in text revision and manuscript writing.

Arthur Ituassu is Associate Professor at the Pontifical Catholic University of Rio de Janeiro (PUC-Rio). Visiting Professor at the Center for Latin American Studies at the University of Arizona. Associated Researcher at the National Institute of Science and Technology in Digital Democracy (INCT.DD). Member of the Council of the Democracy in Check Institute (Dx). In this article, he contributed to the conception of the research design; development of theoretical discussion; data interpretation; support in text revision and manuscript writing.