

Citizen Journalism and Professional Journalism

——the Tweets with hashtag “#breakingnews” as the Example

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Abstract With the birth and growth of the Internet, citizen journalism has been into a new stage in its history. It can cause huge influence on the traditional approaches to news, while because of the lack of professional standards and ethics, citizen journalism is still faced with huge challenges, such as competing with professional journalism. This study tries to probe into the competition and cooperation between citizen journalism and professional journalism on Twitter.com, setting tweets with the hashtag “#breakingnews” as example, by using tools as Voyant.com, Tableau and Gephi to analyze and visualize the result.

Keywords citizen journalism; professional journalism; twitter; breaking news; timeliness; the Five Ws

1. Introduction

Traditionally, professional news media and journalists release information about events directly to audiences, while those receivers can make restricted reactions to the message. In the late 20th century, some presses addressed the importance of common people’s views, so they held a series of seminars, public opinion polling and citizen reporter program to allow civilians to participate in the process of news releasing. In 21st century, with the growth of the Internet as well as the birth of social media platforms on the Internet like Twitter, civilians have increasingly “employed the press tools they have in their possession” (Rosen, 2008) to speak out. Citizen journalists uncover realities, release updated information and provide their viewpoints to public. More and more civilians offer to find news materials, provide abundant news sources as well as channels to spread messages(宋昭勛, 2005).

The concept of citizen journalism has been confirmed by communication scholars as the opposite of **professional journalism**(Atton, 2003). However, the authorized definition of citizen journalism is still the controversy waging for years, and some think that, **citizen journalism** means common civilians "playing an active role in the process of collecting, reporting, analyzing, and disseminating news and information"(Bowman & Willis, 2003), by using technologies and press tools. In the process, those civilians are considered as amateur reporters. In a broader perspective, citizen journalism has been even defined as "a range of amateur news and information reporting and sharing activities" by scholars (Barnidge et al, 2014). This paper adopts the broader definition of citizen journalism to discuss about the phenomenon of citizen news sharing and disseminating on social networking platforms, setting Twitter.com as an example. However, even some civilians also post so-called "news", the content they release cannot reach the target of "report and share news and information", and in this paper, they are called "**grass roots**", which means ordinary people in the society (Cambridge Dictionary, n.d.) rather than news and information reporters.

Twitter.com, one of the most popular online news and social networking service(Wikipedia, n.d.), is known for its capability of short length messages, creating an "environment of constantly fragmented updates"(n.d.). Therefore, Twitter.com provides a space for professional journalists as well as citizen journalists to publish journalistic products like breaking news "without an established order" (Hermida, 2012), which enables journalists' and media accounts to expand the total number of news releases. **Breaking news**, is referred to as a kind of "news bullets" to report events lately happened, and it is mainly assigned to the **hard news**, which broadly refers to the news and events that are reported immediately, requiring news releases "up to the minute" (Limo & Mann, 1997). Therefore, hard news owns at least one of the elements of newsworthiness(Redohl, 2015), timeliness. What's more, "it usually involves political, economic or social topics", but arts, entertainment and lifestyles cannot be included in this type of news stories(1997). Since breaking news shares the characteristics of hard news, it also requires timeliness and includes political, economic and social topics.

This study focuses on the competition and cooperation between citizen journalism and professional journalism. In accordance with findings of Farida Vis(2013)'s study named *Twitter as a Reporting Tool for Breaking News*(2013), since currently citizen journalists are seemed to be concerned with the topic of breaking news as much as professionals, the study collected and analyzed the results of data collection and analysis of the two genres' tweets about #breakingnews on Twitter.com in order to research the competition, simultaneously, as well as cooperation between citizen journalism and professional journalism.

2. Literature Review and Hypotheses

In accordance with Sundar, Knobloch and Hastall's research, journalistic values can be "reflected in online news features and impact readers' news selections"(2005), and at least one of news stories characteristics relative to the intended audience should be considered: "proximity, prominence, timeliness, human interest, oddity, or consequence"(Wikipedia, n.d.)

To study the competition and cooperation between citizen journalism and professional journalism in terms of tweets with the topic of "breaking news", this paper would consider timeliness (the characteristics of the news posts), the principle of Five Ws (5W1H) that is required in journalistic style, and the variety of news sources as the standards to compare and contrast the competition and cooperation between citizen journalism and professional journalism. However, grassroot posts won't be included into the process.

Timeliness

Timeliness means the news releases "up to the minute"(Limor & Mann, 1997), and the television and radio news journalist Owen Spencer-Thomas(2011) indicates that "news gets out of date quickly" and he addresses that the meaning of "recent" is "related to the publication cycle of the news medium in which the information appears."(Spencer-Thomas, 2011) What's more, in the new media journalist Sarah

Redohl(2015)'s point of view, it is the reason why a news called news, and “the more recent your information, the more likely people will find it of interest.”(Redohl, 2015). as one of the important characteristics of breaking news, both citizen journalists and professional journalists should reach timeliness, or breaking news won't realize its value(Grubisich, 2005).

Citizen journalism appeared in the late 20th century, gradually separated from the involvement of the traditional new reporting led by professional journalism, but to some extent, it still contains a series of traditional news styles. However, currently most of scholars still think that citizen journalism is not synonymous with journalism and lack the standard (2005), while some argues that citizen journalists can report in real time(The Digital Journalist, 2009). In this paper, timeliness of citizen journalism, is predicted lower than that of professional journalism. Therefore, the hypothesis is designed as

H1: Professional Journalism can post more recent time news and information than citizen journalism.

The Principle of Five Ws

In 2005, Tom Grubisich published a research on citizen journalism, which addresses that after reviewing ten citizen journalism sites, he found “many of them lacking quality of news.” Another former journalist David Simon criticized the report quality of citizen journalism, and revealed that those so-called citizen journalists are unable to replace trained and professional journalists(2009) because it is hard for citizen journalism to adopt professional standards as well as ethical ones. On the contrary, some scholars argue that those news reported by mainstream media also “misreport facts occasionally or reported incorrectly” and some of them are even corrected by citizen journalists(2009).

There are a variety of approaches to the comparison and contrast of quality between citizen journalism and professional journalism, in terms of news styles or

values. This paper specializes in the **principle of Five Ws** or 5W1H—“Who, What, When, Where and Why” as well as “How”, which were summarized by Rudyard Kipling(1902) and were introduced into journalism classes by 1917(Flint, p.7). As the important elements organizing the news structure, “Who, What, When, Where and Why” as well as “How” are basic parts the news should contain. Thus, this principle can measure some fundamental parts in news writing and provide key reference for comparing the quality of news writing. Specifically, breaking news is special compared with other types of news because of the restricted length. Till now, there is no scholar or academic study requiring that breaking news should reach all the elements of this principle. Therefore, this paper will only focus on: to what extent the tweet about breaking news can reach the principle of Five Ws or 5W1H, but not require it reach all of the principle. Because of the professional journalism’s high standards, the hypothesis is designed as

H2: Professional journalism can post news and information that reach more elements in the principle of Five Ws than citizen journalism.

News Sources

Traditionally, professional journalism acquires news sources from typical areas like government, social organizations or official channels. In accordance with the report of Pew Center for Civic Journalism (2008), although some news presses organized practical activities in order to access to communities and civilians(Pew Center for Civic Journalism, 2008), seldom of them can reach all the corners of society, while with the birth and growth of citizen journalism, in some scholars’ points of view, citizen journalism complements the gap between media and public (宋昭勛, 2005) . They can reach more varieties of news sources among communities. For example, citizens are able to send the video up to network immediately when a car crash happens, and professional media should acquire the video owner’s permission to use the video to release this news. However, citizen journalists also have problems in acquiring the first-hand materials from traditional media, government and other official organizations when they try to report relevant

news. This paper will discuss about the amount of news sources kinds, The hypothesis is designed as

H3: Citizen journalism has more news sources than Professional journalism.

Some scholars also point out that “citizen journalism can be the complement of traditional news reports”(宋, 2005), and mainstream media are supposed to have a right attitude toward the growth of citizen journalism. In this aspect, BBC, the Guardian, The New York Times and other professional journalism have practiced the cooperation with citizen journalism by collecting news sources from civilians or even posting some citizen journalists’ reports on their columns(2005). However, on the social media platform the cooperation between accounts of citizen journalism and official accounts of professional journalism is still uncertain. In accordance with the **two-step flow of communication hypothesis**, which was proposed by Lazarsfeld Berelson and Gaudet(1944), that traditional mass media can have effects on those individuals who are perceived as opinion leaders, and those opinion leaders will spread the effects on their interaction webs. In the context of social media platform on the Internet, this paper tries to perceive professional journalism on Twitter.com as the traditional mass media, and perceive citizen journalism as those opinion leaders who have the most influence on other individuals and post news or information to public. Therefore, this paper designs the hypothesis on their cooperation as

H4: Citizen journalism acquires news sources from professional journalism on Twitter.com.

3. Research Questions

Since this paper targets at studying the competition and cooperation between citizen journalism and professional journalism with the topic of breaking news on Twitter.com, for examining their competitiveness, it is essential to make the comparison and contrast not only on the timeliness, the principle of the Five Ws and

news sources, but also on their **tweet visibility**, which is set as the dimension evaluated by the variable “to user”, the number of being mentioned or retweeted.

RQ1:To what degree citizen journalism and professional journalism are more competitive than the other in term of the tweet visibility?

RQ2:In terms of timeliness, the principle of the Five Ws and news sources, to what degree citizen journalism and professional journalism are more competitive than the other?

RQ3: Can citizen journalism cooperate with professional journalism on Twitter.com?

4. Methods

4.1 Data Collection

To answer those research questions, this paper collected data with the hashtag “#breakingnews” for about three days from Twitter.com by using the TAGS.

Table 1 A list of data with the hashtag about “#breakingnews”

Data source	TAGS
Hashtag	#breakingnews
Time span	From <u>Apr, 14th 00:59:56</u> to <u>Apr, 11th 07:25:41</u>
Sample capacity	23,510

What’s more, this paper analyzed the data and content by using tools as Tableau, Voyant as well as Gephi. Specifically, the Top 20 tweeters with the highest tweet visibility in Tableau, the Top 20 tweeters with the highest in-degree dimension in Gephi were addressed as the representatives to evaluate the influence of different journalism categories.

4.2 Content Analysis

In this study, the coding scheme was designed based on a sample of 254 tweets (original 300 tweets), sampled from 23,510 tweets by using the systematical sampling with 38 tweets per cluster. Since the language limitation, during the process of sampling the study got rid of 46 non-English tweets.

To achieve the target at answering the research question “in terms of timeliness, the principle of the Five Ws and news sources, to what degree citizen journalism and professional journalism are more competitive than the other?”, this study designed the coding schemes with definition and exemplar shown as follows: *Table 2*

Table 2 Coding categories for dimensions as timeliness, the Five Ws and sources

Dimensions	Variables	Definition and exemplar	Inter-coder reliability(unable for the individual's study)
Timeliness	The level of Recentness	<p>The levels of how specific the tweet mentions a recent event's time in the text.</p> <p><i>@ #BreakingNews April 13 / BJP central election committee's meet on upcoming Karnataka elections to be held on April 15</i></p> <p><i>https://t.co/mkbgWEawCu</i></p>	--
The principle of Five Ws and One H	The level of amount on elements in Five Ws and One H (abbreviated as "Element Level")	<p>The level of the amount on elements in Five Ws and How mentioned in the tweet. Specifically, the amount below 3 is "low"; equal to 3 is "medium"; above 3 is "high".</p> <p><i>@Syrian ally (Russia) warned the US that air strikes risk a new war... @BBC Reported...</i></p> <p><i>#Breaking #News #Headlines</i></p> <p><i>#BreakingNews #answertime</i></p> <p><i>#MorningJoe</i></p> <p><i>#WhatILearnedToday</i></p>	--
News sources	Whether there is news source in the twitter(abbreviated as "Source")	<p>The alternatives on whether tweets have news sources like links to different types of personal and organization sites or not.</p> <p><i>Tucker: Will our leaders protect us from a caravan invasion?</i></p> <p><i>#BreakingNews https://t.co/t2y9r1xlnX</i></p>	--

4.3 Categorization of Participants

After collecting all the data about tweeters and tweets on “#breakingnews”, those tweet participants would have been categorized into three: citizen journalism, professional journalism and “grass roots”. Furthermore, the study would have specialized them into detailed identity categories in accordance with their definitions. However, this study only implemented the process of categorization mentioned above focusing on top 20 participant identities, which were sorted according to their degrees of tweet visibility.

By checking the 20 users’ self-provided profiles on Twitter.com, the categorization has been designed, and the list of categorization on top 20 participant identities is shown as follows: *Table 3*.

In addition, the categorization as well as those media roles’ definition is also implemented in the comparison and contrast during the process of content coding.

Table 3 A list of categorization on Top 20 participant identities (sorted by “tweet visibility”)

Media roles	Detailed Identity categories	Definition	Numbers of Top 20 participants
Citizen Journalism	News individuals	Persons who are interested in posting news or latest information but not professional ones	9
	Non-media Organizations	Organizations that are specialized in posting news or latest information but not professional ones	2
Professional Journalism	Official media organizations	The official accounts of professional media like radio or TV stations and presses	6
	Professional journalists	Journalists working in professional media	1
“Grass Roots”	Others	The identities other than those mentioned above	2

5. Results of Analysis

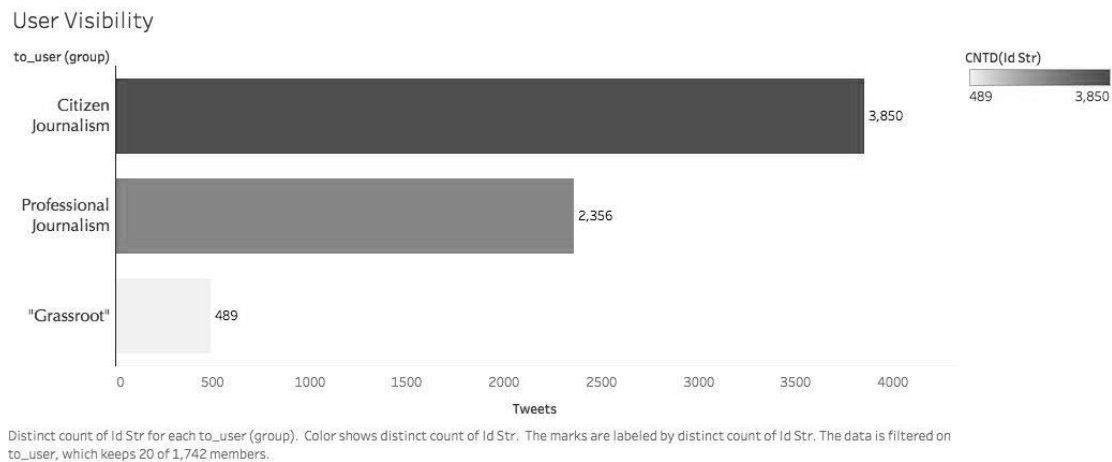
5.1 Influence of Professional Journalism and Citizen Journalism

To answer the RQ1, the influence should be measured in accordance with tweeter visibility. Additionally, in the process of analyzing the text, the topics influence as well as interaction webs shown in the Gephi map sorted by journalism genres also reflect the differences on influence between professional journalism and citizen journalism.

Individual Influence: Tweeter Visibility

Figure 1 shows total amounts of being mentioned or retweeted grouped as citizen journalism, professional journalism and “grass roots”. The grouping method is referred to the list of categorization on Top 20 participant identities (Table 3). As the figure shows, the genre having highest user visibility is citizen journalism, with the amount of 3,850 tweets, while professional journalism have its visibility reflected by the amount of 2,356 tweets.

Figure 1 User visibility after grouping (tool: Tableau)



Roughly speaking, citizen journalism has more influence on professional journalism in accordance with the user visibility. However, since this result is collected from only 20 tweeters, it owns limitation on representation.

Topics Influence: The Second Hashtags and Key words

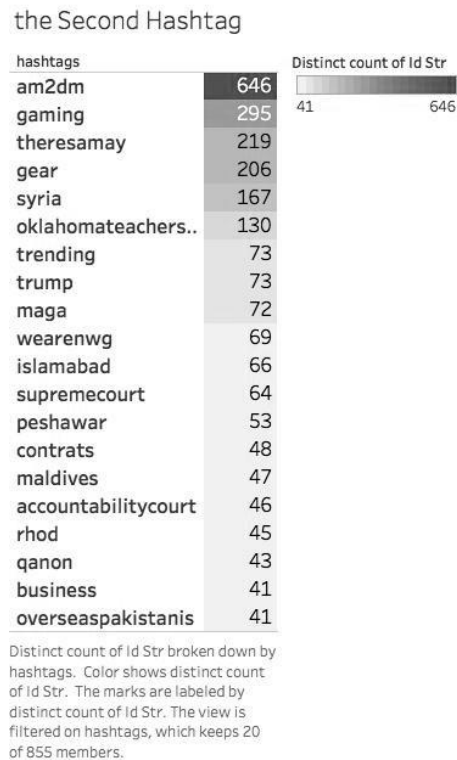


Figure 2 the ranking of the second hashtag mentioned in tweet text (tool: Tableau)

As figure 2 shows, generally, the ranking of most popular hashtags tweet users usually add reflects a great variety of topics people were concerned with. Specifically, topics related to entertainment or leisure activities highlight the diversity of news information. For example, “am2dm”(a live morning show’s name) and “gaming”(about electronic games) stand on the top of the ranking, which are usually mentioned by citizens but won’t be reported by professional journalism.

This finding can also be identified in the word frequency diagram, examined by using the site Voyant.com. Figure 3 exhibites the most frequent words mentioned in all the 23,510 tweets. From this diagram it is still easily identified that words related to topics of entertainment or leisure activities are most popular in people’s tweets, such as “music”, “gaming”, “nowplaying”, “fridayfeeling”, etc.

Figure 3 the most frequent words mentioned in 23,510 tweets text (tool: Voyant.com)

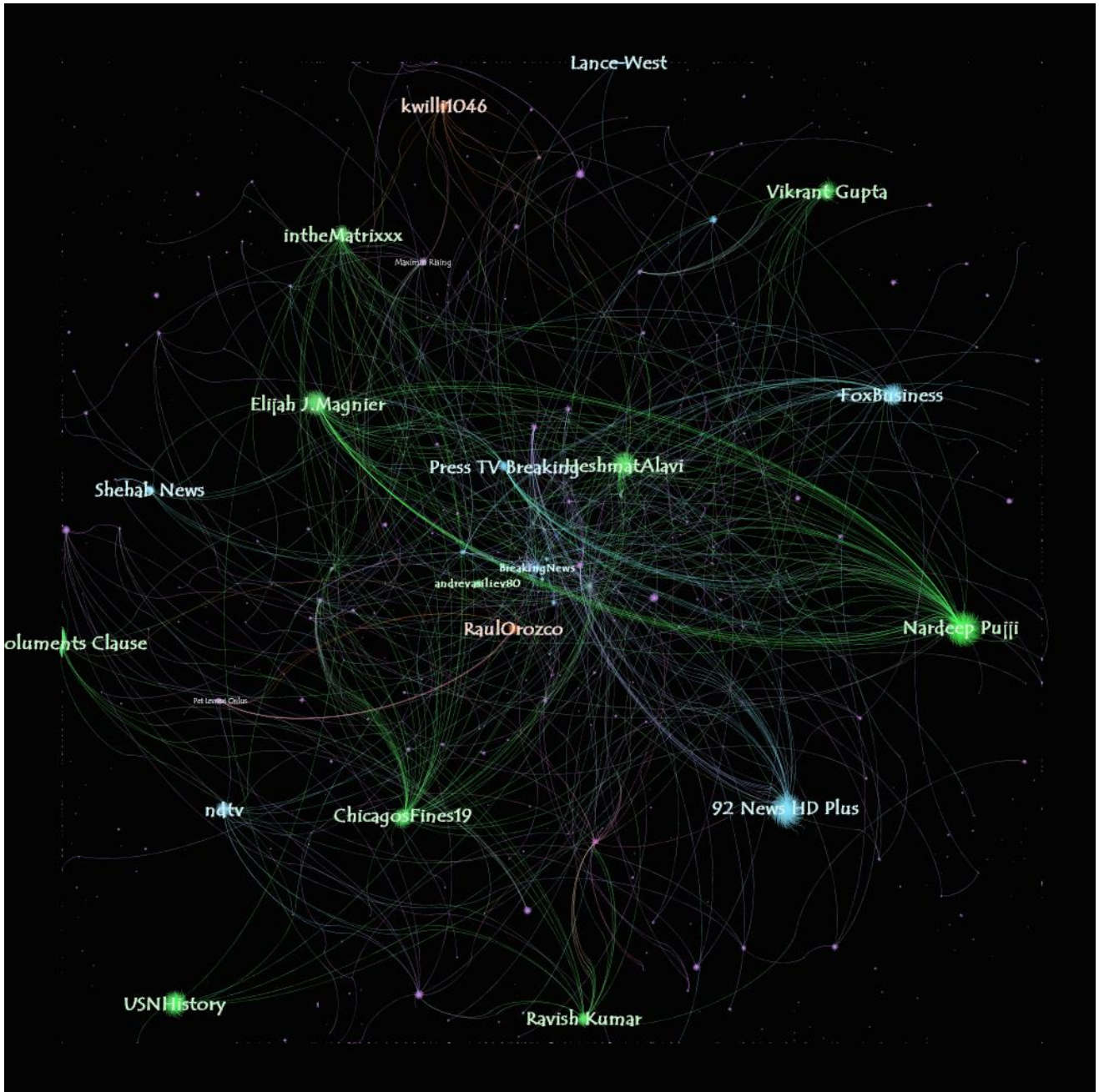


Since the topics only citizen journalists and grass root reporters more interested in can be disseminated frequently and influentially, the influence of citizen journalism as well as grass roots can be confirmed.

However, the phenomenons also elucidate a key problem, which is that civilians prefer to discuss about casual activities and trifles in life by using “#breakingnews”, while breaking news is one kind of hard news(Limor & Mann, 1997), emphasizing characteristics like timeliness and seriousness.

Webs:The Interaction Map sorted by Genres

Figure 4 Interaction Map of Citizen Journalism and Professional Journalism (tool:Gephi)



In this Gephi map, professional journalists and media are represented by **blue** nodes and edges; citizen journalists and media are represented by **green** nodes and edges; grass root accounts are represented by **orange** nodes and edges; while **purple** ones cannot be targeted because of their low in-degree points.

Through the use of data visualization and exploration tool Gephi, this study examined all the sampled tweets mentioning “#breakingnews”, and after importing, filtering and spatializing, the nodes as well as edges in the Figure 4 were spaced in terms of the layout way “ForceAtlas 2”, ranked according to the nodes’ in-degree, labelled by using their tweeter names (but not IDs), sorted by different colors in accordance with categorization on Top 20 participant identities (Table 3).

As is exhibited in Figure 4, generally, the citizen journalists and media represented by green nodes and edges cover far larger space than professional journalists and media represented by blue nodes and edges. Since those nodes with name labels are all ranked as top 20 according to the ranking of in-degree, which means the degree of being retweeted as well as mentioned, this figure identifies the user visibility of the three journalism genres in the form of space.

Thus, generally speaking, citizen journalism has more influence on individuals than professional journalism.

Betweenness

Specifically, two nodes in the map “Press TV Breaking” and “BreakingNews”, which belong to professional journalism, stand on the centre of the whole map, connecting a great many other influential nodes as well as common ones in the shortest paths, no matter which genres those nodes belong to. Therefore, the two professional journalism nodes can be perceived as the **“bridges”** linking to other webs or clusters. This means representing professional journalism, “Press TV Breaking” and “BreakingNews” impact other news releasers and receivers faster and easier than the other nodes.

5.2 Timeliness, Content Elements and News sources

In order to study on the competition and cooperation between citizen journalism and professional journalism, this paper set timeliness, the principle of Five Ws and the news sources as three dimensions to compare and contrast the competition between citizen journalism and professional journalism. (Grassroot posts won't be included into the process.)

Results of Content Analysis

After systematical sampling with the samples as 254, in which only 13 tweets from professional journalism, to compare citizen journalism and professional journalism specifically, this study has to do systematical sampling among 225 citizen journalism tweets with the samples as 13.

Figure 5 Comparison on the levels of recentness between citizen journalism and professional journalism

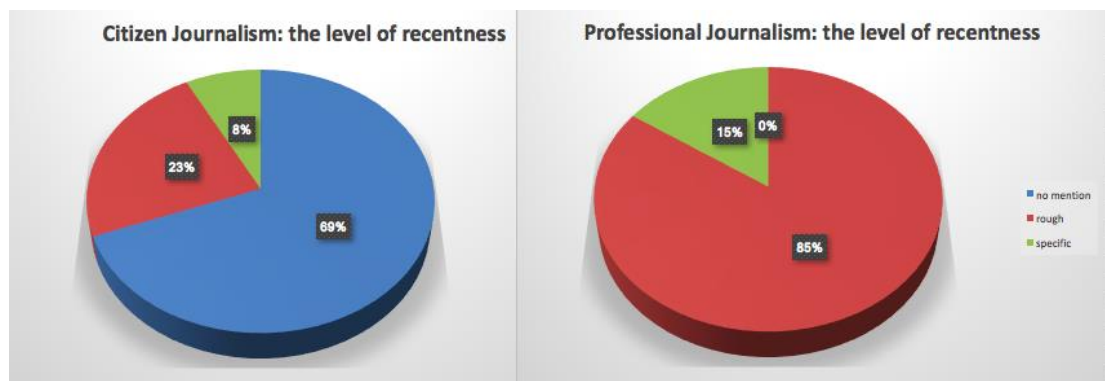


Figure 5 shows that on the condition of the limited but equal samples, professional journalism has about four times of specific description on the recentness as many as citizen journalism has. Therefore, professional journalism can post more recent time news and information than citizen journalism.

Figure 6 Comparison on the numbers of 5W1H elements between citizen journalism and professional journalism

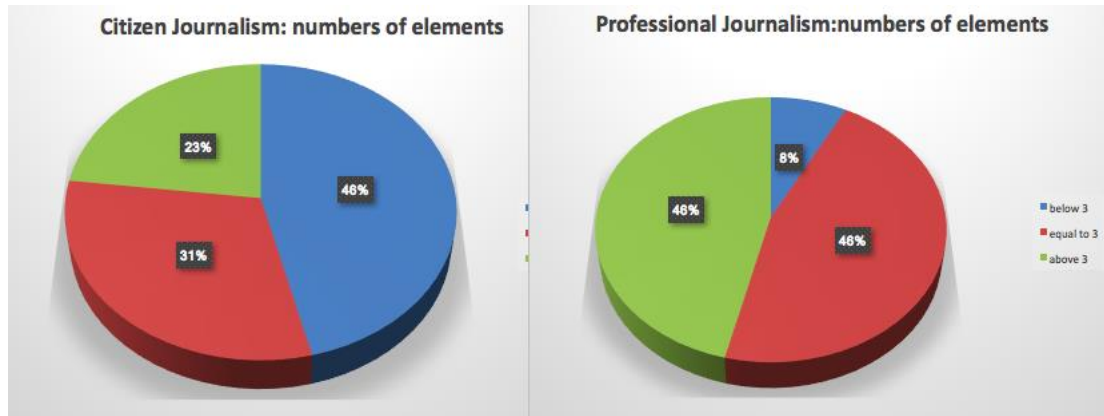


Figure 6 shows that on the condition of the limited but equal samples, there are 46% of professional journalism tweets can include more than three elements of the Five Ws principle, and double the number of citizen journalism. Only 23% of citizen journalism tweets can do that. Therefore, Professional journalism can post news and information that reach more elements in the principle of Five Ws than citizen journalism.

Figure 7 Comparison on whether there are news sources between citizen journalism and professional journalism

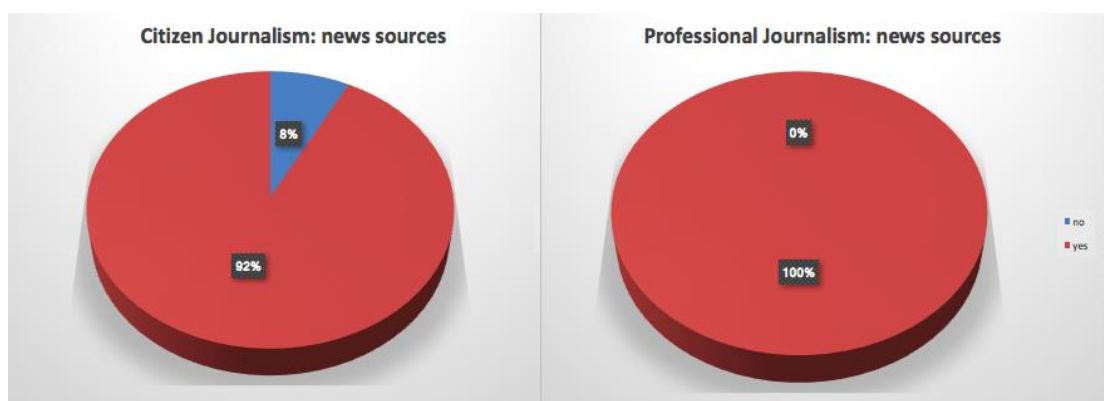


Figure 7 shows that on the condition of the limited but equal samples, the difference on whether there are news sources in the text between professional journalism and citizen journalism is not so apparent, while there is still 8% of citizen

journalism tweets cannot provide news sources to support the posts about breaking news. To be concluded, the gap between citizen journalism and professional journalism on whether there are news sources isn't apparent.

5.3 Cooperation between Citizen Journalism and Professional Journalism

During the process of content coding, it is found that among the 225 citizen journalism tweets, there are about 65% of them release or disseminate breaking news

@ garymccarty

#BreakingNews, via NYT The New York Times <https://t.co/vbR5VzHUzR>

@ SAM_L_YFO

Syrian ally (Russia) warned the US that air strikes risk a new war... @BBC Reported...

#Breaking #News #Headlines #BreakingNews #answertime

#MorningJoe

#WhatILearnedToday

with the link to professional journalism or mentioning the professional media's name in the text. For example, as follows, some citizen journalists still depend on the professionals' reports as their sources.

Therefore, citizen journalism acquires news sources from professional journalism on Twitter.com.

6. Concluding discussion

Key Conclusions

With the development of cyber technology, Citizen journalism has been into a relatively mature stage, and they can cause powerful influence, while because of the lack of professional standards and ethics, citizen journalism cannot play more important role on the recent news releasing and they have lower quality of news content than professionals still. What's more, since the limited access to news sources

(so as professional journalism), citizen journalism still depend on the news articles written by professional journalism to depict the news story.

However, professional journalism and citizen journalism can compete meanwhile cooperate with each other in a better way with the growth of the online social media and other types of interaction services.

Limitations

Even though this study tries hard to compare and contrast the competitiveness of citizen journalism and professional journalism, and simultaneously examine the cooperation between them, there are still limitations as: 1) too small samples when compare the two genres during content analysis. 2) lost some breaking news tweets only using hashtags like “#BREAKING” or “#cut in”. 3) the definition of “grass roots” is not certain and authorized, which may cause some problems on data collection and analysis. 4) when deleting those tweeters with other foreign languages, there may be some operation errors. 5) the total samples in content analysis are still too small, at least 1,000.

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