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CITIZEN JOURNALISM ON THE TWITTERSPHERE:  
THE SHIFT FROM ALTERNATIVE JOURNALISM TO CITIZEN  
JOURNALISM



**Citizen Journalism on TheTittersphere:  
The shift from alternative journalism to citizen journalism**

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Master thesis

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**Abstract**

This study focused on citizen journalism on Twitter, because the SNS has been maintaining a reputation as a real-time information and open communication network, therefore a very suitable platform for journalism. The first aim was to discover about the binary framework of citizen journalism and mainstream media that has been assigned by many scholarly articles, if people show preference for news tweets from two news sources. The second aim was to discover about main motivation to engage in citizen journalism. The third aim was to discover citizen journalism aspect of Twitter.

The first aim was addressed with an online experiment with a between-subject design wherein respondent were either exposed to news tweets from news organization account or individual account, then rated trust aspect, information aspect, and re-tweet intention. However before conducting the online experiment, we sought the characteristic of news tweets from the two conditions with preliminary investigation. The second aim was addressed with an online questionnaire, in which we filtered respondent with the most likelihood to engage in citizen journalism then they were asked their opinion about what is their motivation to engage in citizen journalism, for this we made two categories: community involvement and alternative media. The third aim was addressed with an online questionnaire with sets of question about trending topics, media use and trust, and mobile nature of Twitter.

The results suggested that there is no significant difference between the two news sources in term of trust, information and re-tweet intention. Furthermore, we found that community involvement served as a stronger motivation than alternative media. Next we discovered that trending topics were not perceived as indicator of recent happening, reflection of public opinion, and a faster news source, we also found that although people tend to use more digital media, they trust traditional media more, and that frequent access to Twitter through cell phone did not entirely explain citizen journalism engagement.

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## **1. Introduction**

On September 11, 2001, an ordinary citizen took a stroll around lower Manhattan. She stared at the clear sky when suddenly she saw an aircraft heading toward the magnificent towers of World Trade Center. The unknown aircraft collided into the building and within seconds the building collapsed. The ordinary citizen was in her greatest shock, she bore witness to one of the most horrible event in the whole American history, but she knew straight away that she had to tell others about the event. One way to disclose about this event rapidly and precisely was through the internet, a single click on “publish” button and the world would discover about the news. She was one of those, in less than ten minutes, who provided eyewitness accounts on the web (Allan, 2009).

The illustration above gives us an idea of how citizen journalism started to proliferate worldwide. An event wherein an ordinary citizen bears witness has the affordance to provide others with a liable report. This could happen all the time since out of estimated seven billion people on earth, six billion have access to mobile phone (Time, 2013). Indeed advance in technology, particularly ICT (information and communication technology) is in sync with citizen journalism growth. Convergence and compression of ICT technology allow everyone to process and produce news, whereas in the past these abilities exclusively belong to professional journalist. Further, the emergence of social network services (SNS) such as Twitter and Blogger accounts for publication and distribution affordance that used to be an attribution for news media alone, particularly Twitter that have been maintaining reputation as a social network service (SNS) with real-time information and open communication which enable us to retrieve unlimited information and interact with anyone.

As a home for 19.5 million Twitter users and as a country that achieves the highest Twitter penetration (Zdnet, 2010), Indonesia is an interesting case for both Twitter and citizen journalism practice. Vashwani (2012) reports on BBC that in Indonesia “Chatter on Twitter has pushed for some social justice, embarrassing misbehaving government officials, as well as helping small businesses market their products.” Having a serious corruption issue inside the government system (The Jakarta Globe, 2012), Indonesian citizens utilize Twitter to express their feelings toward the government. Moreover, two biggest mainstream media in Indonesia are owned by politicians; Metro TV owned by Surya Paloh; TV One owned by Abu Rizal Bakrie, both are chairmen of two major political parties in Indonesia. News reported by the two mainstream media is inevitably affected by company interest. There is a growing assumption that citizen journalism is prolific in Indonesia because of the misleading and distorted news from mainstream media; they want to provide an alternative to the mainstream media. The same is true for audiences, due to lack of objectivity in mainstream media reports, people are beginning to rely on citizen reports. However, if audiences prefer citizen journalists over professional journalists and if people engage in citizen journalism to provide an alternative remain scientifically unsound.

Based on the case study above, this study aims to address two dimensions in citizen journalism: people as audiences and people as citizen journalists. The former will be analyzed with the difference in impact of news coming from ordinary citizens and news organizations on a news audience. The latter will be sought by revealing the motivation for people to engage in citizen journalism, the motivation will be framed with Clemencia Rodriguez's theory (2001). The basis of Rodriguez's theory is a shift in citizen journalism practice, namely from providing alternative to enacting citizenship.

In the past, audiences of news rely on news organization alone. Nowadays the convention is undergoing a radical change; people are given more choices, particularly with the emergence of citizen journalism. The opposite party to this change is none other than news organization or mainstream media. Much had been said about citizen's media opposition to mainstream media. There are numerous scholarly articles that assign binary framework to both parties, that mainstream media being the powerful and citizen's media being the powerless. There is however a good reason to believe that the framing could be readdressed.

Clemencia Rodriguez (2001) challenges to re-frame the debate on citizen journalism, she explains that rather than focusing citizen journalism as an alternative that resists mainstream media news, therefore it is a mere extension of the mainstream media, and focusing its relocation in democratization of communication, we should focus on the development within citizen journalism, because citizen journalism has a considerable potential and a unique idiosyncrasy.

### **1.1. Research plan**

This study will be focusing on citizen journalism on Twittersphere with Indonesia as a case study. Study regarding Twitter as a media for citizen journalism is a relatively new field considering the utility of citizen journalism on Twitter has just recently outbreaks. The first objective of this study is to reveal the impact of different news sources on re-tweet intention, if people prefer to re-tweet news tweet from individual over news tweet from news organization, or if the otherwise is true. The second objective of this study is to investigate what motivates people to tweet a news tweet, namely event on their

surroundings, if their motivation is to provide an alternative to mainstream media or to enact their citizenship by providing reports to other and supporting the community.

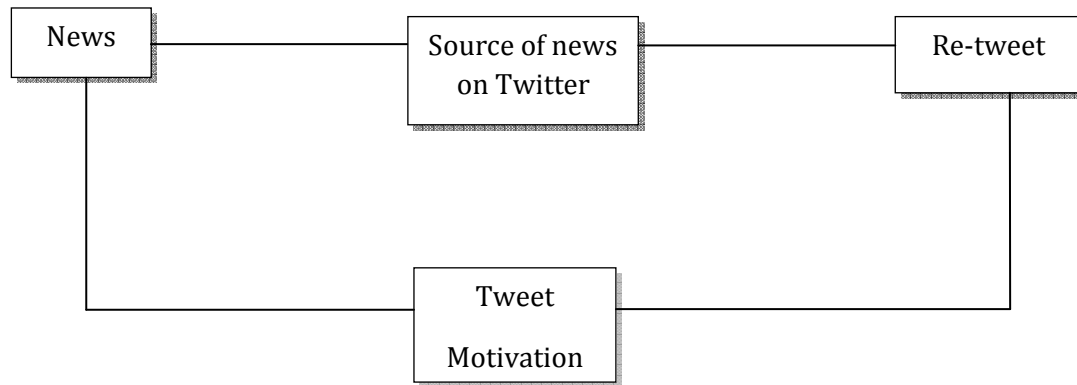


Figure 1. *Relation between the variables*

In the next chapter we will explain the theoretical framework of this study: changes in journalism, how citizen journalism came into the picture, as well as the shift in citizen journalism will be justified. Based on theoretical framework, research questions as well as hypotheses will be proposed.

## **2. Theoretical Framework**

In this chapter, theoretical framework of this study will be outlined. This chapter consisted of five sub-chapters; the first sub-chapter discusses about journalism in the past; the second sub-chapter discusses about how citizen journalism arises and the shift in the practice; the third sub-chapter discusses about journalism in the future, how it adopts social networking sites; the fourth sub-chapter comprises research questions proposal; and the fifth sub-chapter comprises hypotheses.

### **2.1. Journalism in the past: corporation era**

In general, journalism is the process of collecting and editing news for presentation through the media. The history of journalism has been described as the emergence of professional identity of journalist with affirmation of specific role in the society (Deuze, 2005). Ever since industrial revolution news organization serves as the main source of news. Gilmor (2006) labels the era of professional journalist took over the control of news circulation as “The corporate era”. The era signed by scarcity of resource that intertwined with high production expense. A complex and multilayered chain of communication and sense-making of events, issues, and ideas routinely engaged in everyday production of news. To be a professional journalist alone requires a systematic education, employers filter journalism graduate with the most exceptional writing skills and the greatest adroitness, a journalist would travel a distance to cover a story with heavy equipment to record events, and an editor would pick up stories that fulfill the news values and corporation interest. Finally, the news published on the media then the same complicated and multilayered routine would start again within the body of news organization.

In the corporate era, the resource to produce news was attributed to professionals and was scarce, the centralized production of news results in people automatically become news consumer. In this era, people were rather immersed and satisfied with their role as consumers, Gilmor (2006) emphasized that “most of us don’t stop long enough to consider what we’ve been told, much less seek out context, thereby allowing ourselves to be shallow and to be led by people who take advantage of it” (p.6). Consequently, ownership of news organization was of matter in this era. Media owners competed to boost their rating and maximize their audience size (Atton, 2003). The competition of corporation to become the biggest media was intense and at this point some media had been more prominent compare to other media. This in turn affected the imbalance of information flow, especially in a bigger scale. Most of mainstream media in the corporate era was originated from developed countries. Rodriguez (2001) pointed out in her book “Fissures in the mediascape” that due to unequal resources, information used to flow in one direction, namely from north to south. Northern countries or developed counties primarily reported about northern countries, and when mainstream media in developed countries had to cover news of southern countries, they based their report on their judgment and appraisal. As a result, they portrayed developing countries as poor, violent, and as a place for natural disasters. What is more, since third world countries did not have a counterbalance for the news flow, they saw themselves in this social, cultural and economic hegemony, the constant consumerism over western product made them losing their culture and identity (Ibid).

## 2.2. Journalism in the present: the emergence of citizen journalism

Scholarly articles (Rodriguez, 2001; Atton, 2009; Goode, 2009) have been suggesting that the emergence of journalism movements by citizens, especially citizens from less-developed countries, was initially triggered by the distorted misleading news and the capitalism expansion. Social movements and grassroots organization began local and community media as an alternative of mainstream media report, and to democratize communication and information. Indeed, one salient feature of grassroots movements is to accommodate an alternative to mainstream media news. Given this, people start to name the phenomenon of people covering news as “alternative journalism”. As it arises from ordinary citizens and non-professionals, it differs from mainstream media with regard of economy and organization aspect. Alternative media is discrepant with the market-driven of the mainstream media, and is radical, opposing hierarchical organization that professional journalism adopts (Atton, 2009):

Alternative journalism suggests that authority does not need to be located institutionally or professionally; that credibility and trustworthiness can be derived from accounts of lived experience, not only from objectively detached reporting; and that there need be no imperative to separate facts from values. (Atton, 2009, p.284)

In addition, Rodriguez (2001) describes grassroots movement to be different with mainstream media in term of communication characteristics. If big media tend to employ a top-down vertical mode, alternative media is expected to provide a horizontal communication in the society.

A very well-acknowledged example of grassroots movement that provided an alternative media was Indymedia. Indymedia is short for Independent Media Center (IMC), which was originally formed as a response to mainstream media distortion, aiming to

accommodate “an interactive platform for reports from the struggles for a world based on freedom, cooperation, justice and solidarity, and against environmental degradation, neoliberal exploitation, racism and patriarchy” (Indymedia, 2003). As the initiator for a real-time and open-publishing platform, people found Indymedia as a mind-blowing innovation, and honored it as “the mother of all blogs” (Milan, 2010). Up to date, Indymedia is actively mobilizing and engaging citizens to influence mainstream politics and create sustainable autonomous networks across six continents with a total 105 local IMCs (Ibid). Indymedia amplified independence and open-publishing feature of the web, emphasized close and non-hierarchical relationship between writer and reader (Atton, 2009), eventually it has been stimulating open-resources platforms across the web.

Indymedia might have served as a successful instance of an alternative media and have solved the unbalanced information flows in a specified social and political context, however, framing alternative media in oppositional thinking, namely a media that alternate to mainstream media in order to resist and against, would be entrapping. This leads to an understanding of power as a binary opposition between the powerful and the powerless, mainstream media as being powerful and alternative media, which is an alternative to mainstream media, as being powerless. Rodriguez (2001) proposes to free the media made by citizen from being an “alternative” to something, as the media made by citizen have numerous potential and ability than just resisting the mainstream media. Analytical contribution about media made by a community should not merely be a comparison to mainstream media. The debate should not be limited on democratization of communication relocation, but also on the dynamic in alternative media, how democratization of

communication could happen within alternative media. Therefore, Rodriguez suggests to shift the term “alternative media” to “citizens’ media”.

Rodriguez based her proposal on Downing’s guiding principles in rethinking media democracy; the need to accept that oppression comes from various sources in which it is lack of continuity; and the need to visualize the resistance against oppression as a movement and not as an institution, to liberate the attempts from a specific social subject (Downing, 2001; Ibid.). In addition, she amplifies her proposal with radical democracy theory (Mouffe, 1989 as stated in Ibid.), the theory of radical democracy reformulates the understanding of power. Power is not stagnant, instead it is permanently shifting. This theory perceives citizenship as something to be constructed on a daily basis practice through multiple forms. Citizens related to empowerment, “as citizens constantly participate in actions that reshape their own identities, the identities of others, and their social environments, they produce power.” (Ibid., p. 19).

In line with Rodriguez is Atton (2003) that echoes Forde, Foxwell, and Meadows proposal to consider alternative journalism as a “process of cultural empowerment”, when a journalist of a specific local community might produce and maintain a culture of a community. Further, Atton relates to SujathaSosale who encourages the return of “sociality” to journalism (p. 1289).

The shift from alternative media to citizen’s media implies:

...first that a collectivity is enacting its citizenship by actively intervening and transforming the established mediascape; second, that these media are contesting social codes, legitimized identities, and institutionalized social relations; and third, that these communication practices are empowering the community involved, to the point where these transformations and changes are possible. (Rodriguez, 2001, p.20)

Citizen journalism have been practiced in numerous way, and the difference in shapes and forms should be apprehended as creative and smart expressions of the same drive, some of citizen's media rigidly refuses advertising, some accepts, some citizen's journalist shows professional quality, some does not. Consequently, there is no clear cut definition of what citizen journalism is. There is a considerable amount of scholarly articles that unravel different society engaging in citizen journalism, and the number consistently increases due to the advance in ICT.

The emersion of web blog for an instance inspired people to explore its utility until people discover about the publication affordance in web blog. "Salam Pax" a warblog made by a Baghdadi during Iraq invasion was of great prominence, it provided Iraqi outsiders an insider documentation of Bagdad in times of war (Wall, 2009). In Palestine, a group of activist launched a website "Diaries: Live from Palestine" wherein Palestinian collaborated to report news (Zayyan& Carter, 2009). "Ushahidi" was a website administered by OryOkolloh containing collaborative report from Kenyans society that mainly functioned as a surveillance account (Shirky, 2010).

Next to the rapid ICT development is the rise of social media platforms. Social media is defined as "a group of Internet based applications that build on the ideological and technological foundations on the web 2.0, and allow the creation and exchange of user-generated-content" (Kaplan &Heanlein, 2010, p.61). Youtube, Facebook, and Twitter are social media platforms that have been maintaininga steady popularity nowadays. The primary objective of social media is to share, but as Shirky (2010) has predicted, the development of internet would result in people invent more ad-hoc ways to use the

internet, including citizen journalism. This prediction indeed came into a manifestation during the Arab Spring. Arab Spring is a concept of a revolutionary wave that happened in Arab countries. Through social media such as Facebook and Twitter, the oppressed found a way to resist the oppressor. They made use of social media to report, to mobilize movement, which in turn motivate the great protest offline.

Aside from journalism function of social media, in the past mobilizing a major protest would require longer time. The distance is narrowed down with social media therefore people could reach each other within seconds. What can be concluded then is the tremendous power of citizen journalism, particularly when combined with the revolution of communication. Subsequently, the discussion on citizen's journalism on social media grows challenging. This study aims to focus on the emergence of citizen journalism on Twitter, because Twitter considered as a new social and information platforms that has a lot of intriguing aspect to disentangle. People have been using Twitter for multiple purposes, and as it is built upon information basis, the journalism aspect of the platform is inevitable.

### **2.3. Journalism in the future: on social media**

Twitter is known as a micro-blogging service founded by Jack Dorsey and Biz Stone in 2006 (Newson et. al., 2009; Kwaket. al. 2010). Twitter stand on the tagline "find out what's happening, right now, with the people and organization you care about" (Twitter, 2013). Beyond a social network, Twitter introduced as "a real-time information network that connects you to the latest stories, ideas, opinions and news about what you find interesting" (Twitter, 2013). With regard to its social media predecessor, Twitter has different features

to present. While prior emerging social media are more likely to support interpersonal communication, Twitter facilitates open and public communication. Both individual and organization sign up Twitter accounts and are able to interact with each other, subsequently connection and information flow on Twitter is unlimited. In the past, to immediately have a conversation with a parliamentary member was unimaginable. Twitter is the first platform to enable such communication. Up to date, there are around 500 million people registered to Twitter with around 200 million active user that tweet an estimate 400 million tweets a day (Mashable, 2013). Twitter has become a place wherein everyone spends their time and interacts unlimitedly. News organization such as CNN, BBC, Times, etc. started to make use of the social media platform to reach the audiences.

When signing up, each Twitter user obtains a unique username with a symbol “@” in front of their username. After acquiring usernames, users are able to tweet; an action of composing a public message with 140 characters. Twitter adopts this characteristic from short message service (Shriram, 2010). A tweet might be re-tweeted, favored, and replied by others.

General interaction between Twitter users includes mentioning, following, un-following, and direct messaging. The username as mentioned earlier also function to mention other user. The “follow” action on Twitter is not necessarily reciprocal. If a Twitter user follows another user, their tweets will be available on the timeline. However it is also possible to undo the action of following with un-follow button. Furthermore, another salient feature of Twitter is the ability to trace and filter certain topics with the use of hashtag “#”. If a topic affixed with a hashtag (e.g. #tilburguniversity) and mentioned

numerous time, the topic may be trending locally or globally. This is coined by Twitter as “Trending Topics”. According to Dailybloggr (2010), trending topics are user generated hashtags that get high popularity and featured on Twitter interface. Trending topic implies information filtering function on Twitter.

Having known general information about Twitter, we can conclude that Twitter is suitable for citizen journalism practice in four respects. First of all is the micro-blogging feature of Twitter. Twitter allows people to blog in 140 characters, and this characteristic compelled Twitter user to focus on what they want to update. Original blogger criticize the feature, because according to them blogging requires a good writing skills and large content as a reflection of one’s thought (Shriram, 2010). However, this feature in turn would be utilized by users with or without writing skills to compose a report of an event instantly. Secondly, Twitter is an open communication “Twitter is built on open source software, from the back-end to the front-end....”(Twitter, 2013).The inherently open source of Twitter allows people to interact with public figure and organization (Kwak et. al., 2010). By this function, Twitter amplifies democracy and transparency. Thirdly, twitter also works to filter certain topic, the function is called information filter (Nauts, 2013). Citizen journalism would benefit from information filter, to engage and to advocate a certain event.Lastly, compare to the other social networking platforms, Twitteris more likely to be accessedonmobile devices. As William (2010) states, after Twitter close an agreement with major mobile phone corporation, Twitter access from mobile devices rocketed to 62 percent. The mobile nature of Twitter made it accessible anywhere and anytime.

We have discussed about journalism changes, from the corporation era to Twitter era. In the next section we will discuss about our research question.

## **2.4. Research question**

In this study, the research questions will be divided into three parts. The first part comprises a set of research questions which aims to discover about impact of news tweets from news organization account and individual account on a Twitter user. The second part comprises a set of research question that address what motivate a Twitter user to engage in citizen journalism on Twitter. The last part comprises a set of research questions that address citizen journalism aspect on Twittersphere.

### **2.4.1. Source of news on Twitter**

To our knowledge there have been very few study attempted to empirically compare how audiences perceive news from mainstream journalist and citizen journalist in a social network service, this might be due to the novelty of the subject. A recent study by Schmierbach&Oeldorf-Hirsch (2012) found that news messages on Twitter are perceived as less credible than news messages on a newspaper website. There are also prior studies that compared perceived credibility of different news sources (Kiosis, 2001; Choi et. al, 2006; Kraft, 2010), their finding indicates that news media that is run by professionals such as newspaper and online newspaper perceived as more trustworthy than other news media such as Twitter, blog, social network platforms. However, recent phenomenon, such as social media revolution (Kirkpatrick, 2011) might have impact on how people perceive trust or credibility of news sources. In addition, the phenomenon of citizen journalism have gone viral over the past two years; in line with ICT development and penetration, there is a

growing number in assumption that a radical change or a fundamental shift has been taking place in people convention on journalism (DeMers, 2013; Mason, 2013). For which reason, this study proposes to investigate what is the impact of news coming from different news sources on an audience. Our main research question is:

**RQ1:**

“What is the impact of news tweets by news organization account compared to news tweets by individual account on a Twitter user?”

Impact of news tweets from different news sources will be measured with three variables: trust aspect, information aspect, and re-tweet intention. We will discuss the three variables based on scholarly literatures and scientific finding further.

*Trust in journalism practice*

Trust is one of the most important aspects of news. As Jenkins (2012) stated: “Journalism is a profession based on trust. People need to know that the news they are viewing, or listening to, or reading is fair and accurate and honest.” (p.2). On their study about news media trust, Kohring and Matthes (2007) stated that trust informed us how individuals perceive and evaluate news media. This statement is reflected on Andy Carvin’s case. Andy Carvin is a senior strategist at National Public Radio; he was the first to organize information from Tunisian protester including video, social network message, and links, on a website called Storify.com (Stelter, 2011). During Egypt revolution, he also organized tweets on Twitter through similar mechanism. His method was widely praised as a new type of curation, in spite of his argumentation that the notion of journalists gathering,

analyzing and disseminating relevant information isn't new at all (Ibid). There are two dimensions that combined within the case above which ultimately elicit trust: a reputable journalist and eyewitness evidences. News audiences are more likely to trust news they read from a big media, because a big media consistently build its reputation hence gained credibility. Andy Carvin represent the big media and attain trust. Another aspect that elicits trust is evidence. Storify provide both aspect and secured trust in the eye of audiences.

An interesting case for citizen journalism and trust in Indonesia is Ade AyuS with a Twitter username @triomacan2000. The Twitter user has been an active citizen journalist in Twitter with a pseudonymous account. The strong pseudonymous account, consistency in identity (Shirky, as stated in Ingram, 2011), results in people count on his report and opinion. He gained popularity and trust from his critical assessment over state policy and his reliable investigation on corruption cases. Up to date he attained a total 458.589 followers and remains with a pseudonym identity. What can be concluded from both cases is that trust is one of a main reason for people to read certain news from certain source.

#### *Information aspect of Twitter*

As noted earlier, instead of a social media platforms, Twitter depicted itself as a real-time information network that connects its user to stories, ideas, opinions and news they care about (Twitter, 2013). Twitter is exceptionally associated with information. According to Kraft (2010) in her study, as much as 29.8 percent of respondent found information feature of Twitter applied to them in quantitative data retrieval, and the number increased during qualitative data retrieval to almost 45 percent. The value of information might encourage

someone to read something. Herewith, we could observe that information aspect is also an important aspect. Moreover, in a platform that upholds information aspect.

### *Re-tweet*

Kwak, et. al. (2010) have conducted the first big scale quantitative study about the whole Twittersphere. They defined re-tweet as a form of interaction evolution on Twitter, RT or re-tweet is a common practice of responding to a tweet (Ibid). Subscription to mass media indicates people become immediate audiences of the news that the media produce.

However, this is not the case in Twitter. A Twitter user might acquire information that was not from who they follow but was a result of re-tweet action. Kwaket.al. had proven the power of re-tweet; no matter how many followers a Twitter user has, their tweet has the likelihood to reach a certain number of audience(Ibid.).

When reading news on Twitter timeline, a Twitter user is given the option to re-tweet news. The objective is to find the difference in re-tweeting preference between different news sources. We assumed that re-tweetingactionimplies support and preference.What are the motivations to re-tweet a tweet remain unclear, which becomes our next intriguing question: what factors predict a Twitter user to re-tweet a news tweet. In our framework, we are limited to two predictors in order to explain re-tweetaction, the two predictors are trust and information aspect. Our second research question is formulated as follow:

### **RQ2:**

“Between trust and information aspect on a news tweet, which will be a better predictor of re-tweet action?”

### 2.4.2. News tweet motivation

In the past, a considerable amount of field research has focused on citizen journalism, several of which discovered that the main motivation for people engaging in citizen journalism is to provide an alternative to mainstream media (Allan, 2009; Atton, 2009; Deuze, 2009; Wall, 2009; Zayyan& Carter, 2009). On the other hand, there was also a finding suggesting that satisfaction of sharing is one of the motivations in practicing citizen journalism (Kokenge, 2010), Allan (2009) also posited citizen journalism as highly contributive in times of crisis (such as collaborating to provide surveillance account) and to achieve democratic culture (mobilizing demonstration), these findings are in line with Rodriguez (2001) proposal to shift the framework of citizen journalism from binary categorical onto citizenship enactment. Departing from the theory, we propose to seek what motivates a Twitter user to engage in citizen journalism, we limit the motivation into two categories: community involvement and alternative media. Thereby, we formulated our next main research question as follow:

#### **RQ3:**

“Between community involvement and alternative media, which is a stronger motivation for Twitter users to engage in citizen journalism on Twitter?”

#### *Community involvement*

Community involvement is a broad term that implies citizenship enactment. Citizenship, based on radical democratic concept (Ibid.), is seen as a day-to-day basis practice, or in other words, it's inherently active. This is shown in Kokenge's finding (2010), what motivates journalist of Mymissourian.com to produce citizen journalism is to gain

satisfaction of sharing; as they share, they actively enact citizenship. Citizenship is also related to empowerment, “as citizens actively participate in action that reshape their own identities, the identities of other, and their social environment, they produce power.” (Rodriguez, 2001, p.19). Community involvement reflected as motivation to engage in citizen journalism on several study cases. Several of which are Australian aboriginal media (Ibid.), Ohmynews! in Korea (Woo Young, 2009), the use of Wikinews during Hurricane Katrina (Vis, 2009).

### *Alternative media*

The historical account depicted citizens’ media emergence as a response of imbalance information from mainstream media. According to Rodriguez, indeed mainstream media instigate the emergence of citizen’s media:

Citizens’ media emerge at the intersection of three elements: the citizens’ will to reappropriate the media to satisfy their own needs and to seek their own information and communication goals; a historical, social and cultural context that poses unique obstacles while also offering specific options for the implementation of citizens’ media; and citizens’ enactment of creative strategies to exploit the exhaustion every fissure in the dominant media system. (Ibid., p. 158)

Ushahidi, a website developed by Ory Okolloh, is an example of media that born as an alternative to mainstream media. A dispute on election in Kenya flamed conflict between two parties, which eventually turned into ethnic violence. No mainstream media, stated Shirky (2010), covered the riots, as a result of the government ban. The same is true for “Diaries: Live from Palestine” a website that was invented due to a biased politic (Zayyan & Carter, 2009).

Aside from finding the stronger motivation for people to engage in citizen journalism, we are interested to answer the same question for Twitter users of higher education and the differences for gender in the motivation. Therefore, we formulated a subsequent two sub-questions:

**RQ3a:**

“What is the motivation for higher educated Twitter user to engage in citizen journalism?”

**RQ3b:**

“What is the difference between male and female in their motivation to engage in citizen journalism?”

Having justified our three main research question, our next research question will be discussing the finding of RQ1-RQ3, if the result interact and provide an explanation that will implicate the study on citizen journalism.

**RQ4:**

“Are the users’ motivation compatible with users’ intention to re-tweet news tweets from news organization account or individual account on Twitter?”

### **2.4.3. Citizen journalism across Twittersphere**

There have been numerous research focusing on Twittersphere in general, majority of research seek to unravel uses and gratification of Twitter (Karft, 2010; Brannen, 2010; Ballard, 2011). However there are only a few study addressed journalism aspect of Twitter (Hermida, 2010). Ballard (2011) particularly pointed out the lack of study focusing on citizen journalism. He suggested that as journalism becomes more integral with Twitter,

future study needs to address the issue. Calling on the suggestion, we formulated research questions regarding citizen journalism aspect on Twitter:

### *Trending topics*

Trending topics can be defined as a top ten list that was filtered by Twitter according to the most discussed topic, displayed on Twitter users' timeline and lasted for seven days.

Twitter made adjustable trending topic: local and global, this can be switched based on Twitter users' preference. Kwaket. al (2010) have conducted a quantitative study regarding trending topics, they have classified trending topic based on active period and found that over 85 percent of trending topic were actually headline news and persistent news. For the particular finding, is it reasonable to assume that trending topics serve as an indicator of recent happening, reflect public opinion, and eventually a news source? Therefore, we formulated our fifth research question as follow:

**RQ5:** "Do Twitter users perceive trending topics on Twitter as indicators of recent happening, public opinion reflection, and a faster way to know about news?"

### *Use and trust*

Numerous studies have attempted to measure perceived credibility of news media (Kiosis, 2001; Choi et. al, 2006; Kohring&Matthes, 2007; Kraft, 2010; Jenkins; 2012). Recent study by Kraft tried to answer the question on credibility of Twitter. She examined how Twitter users perceive credibility of Twitter, newspaper, blog, and social networking sites (SNS). Her finding suggested that newspaper perceived as the most credible. In addition, Choi et. al. (2006) suggested that the finding about news media credibility is correlated to media

news, thus someone who use a certain media as a news source frequently will deem the media as trustworthy. As penetration of Twitter increases, we are interested in addressing the issue, if indeed someone who use Twitter as a news source frequently are more likely to perceive Twitter as trustworthy, hence we formulated our sixth research question:

**RQ6:**“Which media perceived as the most trustworthy?”

**RQ6a:** “Do people who frequently use Twitter as a news source perceive Twitter as trustworthy?”

#### *Mobile devices and citizen journalism*

As mentioned earlier, compression and convergence of ICT technology were all combined to support for citizen journalism practice. What is more is Twitter that affords publication ability is becoming more mobile compare to other social network platforms. Therefore, we are interested to unravel the phenomenon and formulated the following research question:

**RQ7:**“Do people who access Twitter from a cellphone are more likely to engage in citizen journalism on Twitter?”

### **2.5. Hypothesis**

Scientific finding (Kiosis, 2001; Choi et. al., 2006; Kraft, 2010; Shmierbach&Oeldorf-Hirsch, 2012) have been suggesting that in term of trust and credibility, audiences deem to evaluate news tweets by news organization as more trustworthy and credible. For this reason, we formulated our research hypothesis as follow:

**H1:** News tweets tweeted by news organization account will be perceived as (a) more trustworthy and (b) more informative, therefore respondent will have higher intention to (c) re-tweet, compared to news tweets tweeted by individual account.

There is however a good foundation to believe that the preference for news organization account might not be the case, because according to Rodriguez proposal, power is permanently shifting. The power that news organization has is not stagnant, moreover with the increase in citizen journalism practice over the past two years on Twitter, marked with the Twitter revolution on Arab Spring. Given this, we have also formulated an alternative hypothesis:

**H0:** There is no significant difference on impact of news tweet from news organization account and individual account in (1) trust, (2) information, and (3) re-tweet intention of a Twitter user.

According to prior findings (Kiosis, 2001; Choi et. al, 2006; Kohring&Matthes, 2007; Kraft, 2010) trust is a very important aspect in news. We have made an assumption that re-tweet indicates support for a tweet. Trust in a tweet should surpass information value in a tweet in order for people to re-tweet a tweet, this implies people re-tweet not just because a tweet contains information, a tweet should also come from a trustworthy Twitter user. For which reason we formulated our second hypothesis:

**H2:** Trust in a news tweet is a better predictor of re-tweet intention compare to information in a news tweet.

According to Rodriguez (2001), there is a shift in citizen journalism practice, namely from alternative journalism to citizenship enactment. Theory of radical democracy sustained her proposal as it perceives power to be eternally shifting, whereas in alternative media framework, powerfulness belong to mainstream media, thus powerlessness belong to citizens' media. Theory of radical democracy also value citizenship as a daily basis process, an active constructive behavior, and is beyond a mere legal status. Therefore we aimed to scaffold the theory and formulated the following hypothesis:

**H3:** Community involvement is a stronger motivation for Twitter user to engage in citizen journalism on Twitter than alternative media.

**H3a:** Community involvement is a stronger motivation for Twitter user with higher education to engage in citizen journalism on Twitter than alternative media.

**H3b:** Male Twitter user has stronger motivation in (a) community involvement and in (b) alternative media than females.

The fourth research question attempted to discuss the interaction of research question 1 to 3. This should answer the overarching question about journalism practice in general, for both citizen journalism and mainstream journalism. Hence, research question 4 will be addressed in a qualitative analysis.

Kwak et. al (2010) have conducted a big-scale quantitative study regarding Twittersphere, one of new convention that Twitter offers is trending topics, and this is also subject to Kwak et. al. study. Their finding on trending topics showed that more than 85 percent of trending topics were headline news and persistent news in nature. This gives us an idea of

how impactful the trending topics are. For which reason, we formulated our fifth research question as follow:

**H5:** Trending topics will be perceived as (a) indicators of recent happening, (b) public opinion reflection, and (c) a faster way to know about news.

As posited by Kraft (2010) recently and as discussed by other findings, (Kiosis, 2001; Choi et. al, 2006): news media that is run by professionals such as newspaper and online newspaper perceived as more trustworthy than other news media such as Twitter, blog, social network platforms. Next, what we are interested to know is if there is a correlation between frequencies of news media use and news media trust. Therefore we formulated the sixth hypothesis and sub-hypothesis:

**H6:** Newspaper, television, and radio perceived to be more trustworthy than website, Facebook, and Twitter

**H6a:** Respondents who frequently use Twitter as news source are more likely to trust Twitter as a news source.

Due to scholarly articles proposals about ICT advances support citizen journalism practice, because it gets easier to report about certain event (Liu, Palen, Sutton, Hughes, & Vieweg, 2009), which is reflected during Asian tsunami, Southern California fire, London bombing etc. and due to mobile nature of Twitter, it is sound to assume that people who access Twitter from cell phones are more likely to participating citizen journalism. Therefore we formulated the seventh hypothesis as follow.

**H7:** Respondents who frequently access Twitter from a cell phone are more likely to engage in citizen journalism on Twitter.

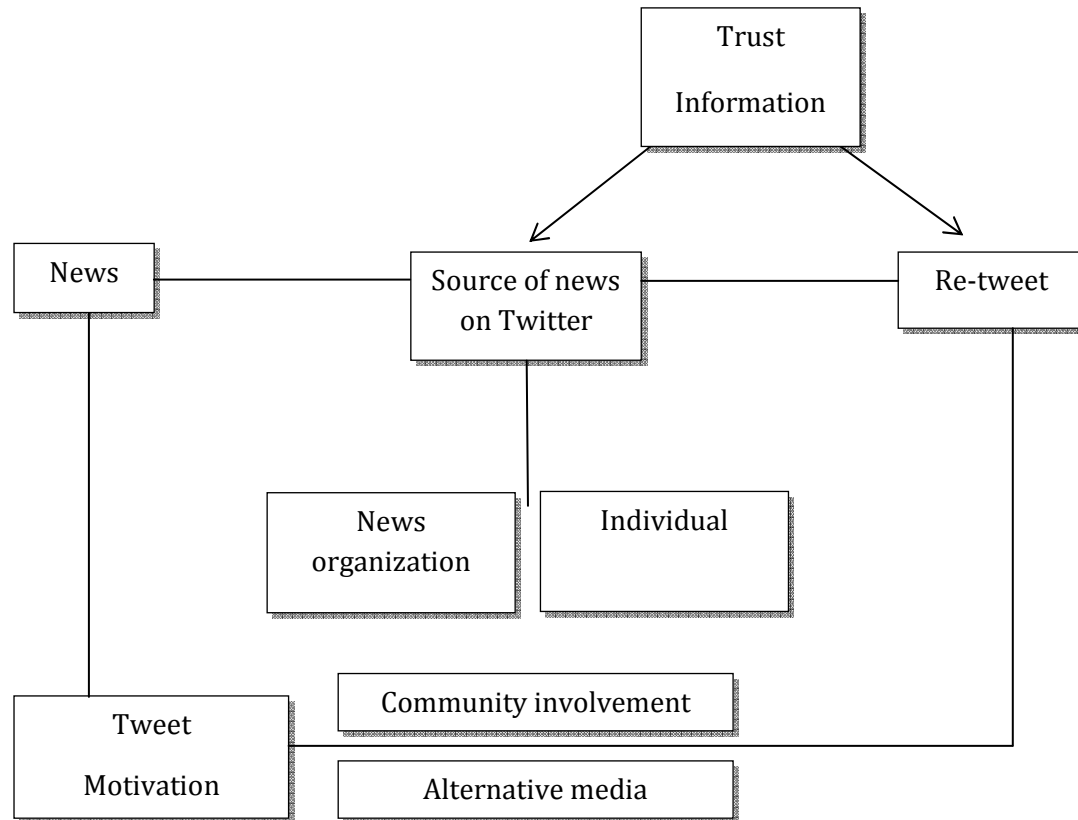


Figure 2. *Research model*

### **3. Methodology**

The main objective of this study was to investigate the impact of news tweet from two different sources on a Twitter user, in term of trust, information, and re-tweet intention. The next main objective is to investigate between community involvement and alternative media which is stronger motivation for Twitter user to engage in citizen journalism on Twitter. The former objective is useful to gain more understanding in the impact of news tweets from different news source, to answer the overarching assumption about the radical change in journalism. The latter objective is as useful to reveal about citizen journalism motivation. To accomplish the first objective, we need to identify the difference of news tweet between the two news sources, what are the characteristics of news tweets from news organization and news tweets from individual. The subsequent step is to analyze how Twitter users perceive trust aspect, information aspect, and their intention to re-tweet news tweets from different news sources. Furthermore, to accomplish the second objective we need to filter Twitter users that have more likelihood to tweet news tweet and analyze their stronger motivation which framed within two categories: community involvement and alternative media.

Two studies were conducted: (1) a quantitative preliminary investigation was performed to identify the characteristic of news tweets from news organization account and individual account on Twitter. (2) an online questionnaire was conducted to examine the impact of news source from different sources on Twitter, this online questionnaire also employed to examine the motivation for Twitter user to engage in citizen journalism on Twitter. The remaining research questions regarding citizen journalism on Twitter will also be answered with the online questionnaire.

#### **4. Study 1: Quantitative preliminary investigation**

##### **4.1. Methods**

The news tweets in this study are tweeted by news organization account and individual account on Twitter. There have been uncommonly few studies that compare the content of news from mainstream media and individual. However, there are some remarks has been made on this issue, such as individual would serve more raw evidence, include more opinion, and expected to provide more interaction (Atton, 2003; Liu, et. al., 2009).

When exposed to a tweet, most commonly a Twitter user will see a message in 140 characters maximum, and obtain general information about the user who tweets the message, such as a profile picture, a profile name, and a username. Therefore, we analyze characteristics of news tweet from different news source based on the general aspect of a tweet: (1) profile picture, (2) profile name, (3) username, (4) message length, (4) full web link, (5) short web link, (6) compiled web link, (7) picture, (8) hashtag, (9) mention, (10) message content. The first three characteristics indicate the profile of a Twitter user who tweet the message, and the remaining indicates the message itself.

##### **4.1.1. Variables**

The justification to select the ten aspects in a news tweet will be explained in this section. The coding and analyzing procedure will also be outlined in more detail.

##### *Profile picture*

Profile picture on Twitter is a square-sized picture that indicates the user identity and appears along user's tweet. A tweet and a profile picture are always co-existent. We propose

to categorize profile picture of a twitter user into four categories: icon, index, symbol (Peirce, 1894 on Marxist, N/A), and other. Icon identifies likeliness, which serve to convey ideas about things that they represent by imitate them, photographs would fall into this category. Index identifies indications, which serve to show something about things, if A correlates to B, thus implies A points to B. Symbol indicates a signal that agreed upon such as words, flags, badges, a particular type font for a specific product (C of Coca cola), etc. The rest profile pictures that are problematic to categorize would fall on the “other” category.

### *Profile name*

Beside profile picture, another identification of a Twitter user is profile name. Given the open source nature of Twitter, Twitter recommends each user to put their real name as their profile name. The reason behind this recommendation is to ease other people recognizing the particular user. However there is no strict regulation on Twitter that requires the users to put their real name, according to CEO of Twitter, Dick Costello, the service doesn't care what their users' real names are, all it cares is to connect the users to the information they care about (Ingram, 2011). As Shirky (Ibid) elaborated reputation is not necessarily attached to names, but to persistent identity, subsequently there is a growing variation of profile name on Twitter such as pseudonyms and nick names. Therefore we propose to categorize profile name of Twitter users into four categories: real name, pseudonym, organization name, and nick name.

### *Username*

Twitter username is a relatively new convention in social media sphere. Each username attain a unique username prefixed with “@” sign. Similar to profile picture and profile

name, it is co-existent with a tweet. Alongside functioning as a user name for one's self, we use username to connect with others, such as when mentioning other user in a tweet, a reply, and in a re-tweet. Three categories are determined for username: includes real name, pseudonym, and includes organization name.

### *Tweet length*

As stated by Twitter (2013) tweet is a small burst of information at the heart of Twitter.

Twitter describes tweet as follow:

Each Tweet is 140 characters long, but don't let the small size fool you—you can discover a lot in a little space. You can see photos, videos and conversations directly in Tweets to get the whole story at a glance, and all in one place. (Twitter, 2013)

As pointed out earlier, Twitter adopted short message service characteristic on message length, which limited up to 140 characters (Shriram, 2010). This could vary the number of words. The particular feature supports the micro-blogging nature of the service. Kwak, Park, Lee and Moon (2010) in their quantitative study stated that the strict 140 characters rule sustains users with brevity in expression. We analyzed tweet length in term of characters and words. It should be noted that a lot can be discovered within a 140 characters tweet. Below, we break down digital objects that can be found in a tweet.

### *Full web link*

Full web link or the so-called hyperlink is a web address that indicate path, direct user to a different spatial geography on the web, and gives different way of wandering around (Milan, 2012). Hyperlink is generally activated by clicking on the highlighted word.

### *Short web link*

Shortened web link has been introduced as a way to share long links across emails and chats (Kirkpatrick, 2009). Shortened web link in turn is useful to cope with the strict rule of 140 characters on Twitter. Beside its economic advantage, with a short web link such as Bit.ly a user might disclose the link traffic, how many times a link is clicked, when and where (Ibid.).

### *Compiled tweet link*

For some user 140 characters might be too short, thus, a twitter user compose a continual tweet and posted a link that compile all the tweets of the topic. A site such as chirpstory.com affords the function, and is prominently useful for Indonesian Twitter. Chirpstory.com with its tagline “create stories from tweets” allows a twitter user, not necessarily the tweet composer, to compile tweets with certain topic and arrange them into a story. If this action is done, tweets have been “chirpified”, and a chirpstory was made.

### *Pictures*

Even though Twitter is a text-based service, it features users to upload picture on a tweet, which will be appeared in form of a link. Generally, pic.twitter.com accommodates pictures uploaded on Twitter. A picture attached can only be shown when “view picture” button on Twitter is clicked.

### *Hashtag*

According to Kwak, et. al. (2010) “Hashtag is a convention among Twitter users to create and follow a thread of discussion by prefixing a word with a ‘#’ character”. Twitter tracks hashtags that are discussed the most and generates a list of top ten trending topics on the

left side of users' timeline by default. A hashtag might be prefixed with various topics, mentioning and discussing certain topic in numerous times would result in the topic being local trending topic or global trending topic.

### *Mention*

When composing a tweet, people often address a specific user. This is known as mention, both replies and mentions include '@' followed by the addressed user's Twitter username (Kwak, et.al., 2010).

### *Tweet content*

Content of a tweet could vary greatly. We focus onto news tweet content hence we categorize news tweet content into 1) title of news, this indicate that a news tweet refers to a longer news report. According to our observation, news tweets from mainstream media are more likely to contain title of news, considering mainstream media have their own websites that they refer to 2) opinion, if it contains subjectivity. Subjectivity is common in citizen journalism practice, as citizen journalist are not given specific norms and values of objectivity that they need to obey 3) witness account (Allan, 2009) if it contains a real-time evidence or if it indicates that the user is in the middle of event spot.

#### **4.1.2. News sources**

As noted earlier, we aimed to examine the differences and the similarities of news tweets from different news sources, which are news organization account and individual account. Both sources were comparable to one another based on general characteristics of a tweet that we have discussed. The number of accounts for both sources in Twitter was assumed

to be highly imbalance. There are no statistical data about the number of news organization accounts on Twitter. However, among around 237 million of Indonesian citizens (BadanStatistikNasional, 2010), 19.5 million citizens have Twitter account (Infographic Lab, 2012). This implies that the chance of citizen journalism practice is approximately as large as the aforementioned number.

#### **4.1.3. Procedure**

A set of ten aspects were examined based on two news sources. A coding summary is attached in the appendix. This preliminary investigation served as an additional aid to design the main online questionnaire.

We collected 40 news tweets for this analysis: 20 news tweets from news organization accounts and 20 news tweets from individual accounts. The 40 news tweets were selected randomly using the search function on Twitter. On the search option, we inquired key words that reflect the latest news in Indonesia such as “BBM naik”, “syiah”, “Ahmadiyah”, “elpiji 3kg”, etc. The latest news tweets posted by different news organization and individual accounts then displayed, sorted from the earliest a week before, arbitrary to the date when inquired, to the latest. Twenty unique news organization accounts were picked, and the same applies for individual accounts. Despite 40 news tweets seems limited, the main objective of this analysis was to obtain a better understanding about the basic differences of news tweet from two different news sources. Thus, the general characteristic of news tweets were examined and compared with each other.

## 4.2. Results

In this sub-part, the results are reported per variable. Each section contains a summary of the findings. A descriptive statistics is also provided.

### *Profile picture*

A Chi-Square test was conducted to see the difference of profile picture for different news sources.

The percentage of profile picture were significantly differ by news sources  $\chi^2(3, N = 40) = 26.14, p < .001$ .

As much as 75 percent ( $N=15$ ) of individual accounts have an iconic profile picture, whereas as much as 82.4 percent ( $N= 16$ ) of news organization accounts have a symbolic profile picture. The results explain that individual accounts are more likely to employ photographs as their profile picture, and news organizations accounts are more likely to employ symbolic picture such as badges, and certain font types that identifies the organization.

### *Profile name*

A Chi-Square test was conducted to see the difference of profile name for different news sources.

The percentage of profile name were significantly differ by news sources,  $\chi^2(3, N = 40) = 36.19, p < .001$ .

As much as 65 percent ( $N=13$ ) individual accounts provide their real name as their profile name, the remaining 35 percent were distributed among pseudonyms ( $N=4$ ), organization name ( $N= 1$ ), and nick names ( $N= 2$ ) whereas a round 100 percent ( $N= 20$ ) of news organization provide organization's name as their profile name.

### *Username*

A Chi-Square test was conducted to see the difference of username for different news sources.

The percentage of username were significantly differ by news sources  $\chi^2(2, N = 40) = 36.19, p < .001$ .

Eighty percent ( $N= 16$ ) of individual accounts provide user name that includes their real name, and as expected as much as 100 percent ( $N= 20$ ) of news organization accounts provide username that includes their organization name.

### *Tweet length*

We separated tweet length based on number of characters and number of words. Before conducting the analysis on Tweet length, we conducted a normality test for each variable. We discovered using Kolmogorov-Smirnov test that for news tweets by individual account both characters measure ( $D(20)= .167, p = .143$ ) and words measure ( $D(20)= .192, p= .051$ ) met the assumption of normality, meanwhile for news tweets by news organization account, only the character measure met the assumption of normality ( $D(20)= .173, p= .117$ ), the words measure ( $D(20)= .200, p = .035$ ) violated the assumption of normality or in other word, it is significantly non-normal. We analyzed that the violation is due to a

suspected outlier in the data. After removing the suspected outlier, each measure met the assumption of normality for both news sources.

Table 1

*Descriptive statistics: Mean (M) & Standard deviation (SD) of tweet length*

<i>Tweet length</i>	<i>Characters</i>		<i>Words</i>	
Source	M	SD	M	SD
News organization	78.55	24.60	9.63	2.79
Individual	110.40	27.16	14.45	4.24

Two independent t-tests were conducted to see the difference between news sources in terms of news tweets' number of characters and number of words.

The independent sample t-test showed that the difference of number of characters between news organization accounts ( $N = 20$ ,  $M = 78.55$ ,  $SD = 24.60$ ) and individual accounts ( $N = 20$ ,  $M = 110.40$ ,  $SD = 27.16$ ) was statistically significant,  $t(38) = -3.89$ ,  $p < .001$ , 95%CI [-48.44, -15.26]. This can be considered as a large-sized effect ( $r = .28$ ).

The second independent t-test showed that the difference of number of words between news organization accounts ( $N = 19$ ,  $M = 9.63$ ,  $SD = 2.79$ ) and individual accounts ( $N = 20$ ,  $M = 14.45$ ,  $SD = 4.24$ ) was statistically significant,  $t(37) = -4.17$ ,  $p < .001$ , 95% CI [-7.16, -2.48]. This can be considered as a large sized effect ( $r = 0.31$ ).

*Full web link*

A Chi-square was conducted in order to see the difference for news sources in terms of including full web link or not including full web link in their news tweets.

Thirty percent ( $N= 6$ ) of news tweets by news organization accounts reported to include full web link compare to 25 percent ( $N= 5$ ) news tweets by individual accounts, this difference proved to be not significant,  $\chi^2(1) = .125, p = .723$ .

#### *Short web link*

A Chi-square was conducted in order to see the difference between news sources in terms of including short web link or not including short web link in their news tweets.

Seventy percent ( $N= 14$ ) of news tweets by news organization accounts reported to include short web link compare to 10 percent ( $N= 2$ ) news tweets by individual accounts, this difference proved to be significant,  $\chi^2(1) = 15, p < .001$ .

Based on the odds ratio, the odds of news organization accounts provide short web link on their news tweets is 21.18 times higher than individual accounts provide short web link on their news tweets.

#### *Compiled tweet link*

A Chi-square was conducted to examine the difference between news sources in terms of including compiled tweet link in their news tweets.

As much as 15 percent ( $N= 3$ ) of individual account provided compiled tweet links in their news tweets whereas zero percent was found for news organization accounts. This difference proved to be not significant  $\chi^2(1) = 3.24, p = .072$ .

*Pictures*

A Chi-square was conducted to examine the difference between news sources in terms of attaching pictures in their news tweets.

As much as 10 percent ( $N= 2$ ) of individual account attached pictures on their news tweet whereas again none of the sample from news organization account was found to provide picture in their news tweets. This difference examined to be not significant,  $\chi^2(1)= 2.10, p = .147$

*Hashtag*

A Chi-square was conducted to examine the difference between news sources in terms of providing hashtag in their news tweets.

As much as 10 percent ( $N=2$ ) of individual account provided hashtag on their news tweet whereas again none of the sample from news organization account was found to provide picture in their news tweets. The difference observed is not significant,  $\chi^2 (1)= 2.10, p= .147$ .

*Mention*

A Chi-square was conducted to examine the difference between news sources in term of mentioning other Twitter user.

As much as 65 percent ( $N= 13$ ) individual account mentioned other user in their news tweets, whereas only 5 percent ( $N= 1$ ) of news organization account mentioned other user in their news tweets. The percentage of mention in a news tweets were significantly differ

by news sources  $\chi^2(1, N = 40) = 15.82, p < .001$ . Based on the odds ratio, the odds of individual accounts mention other user on their news tweets is 37.2 times higher than news organization accounts.

### *Content*

A Chi-square was conducted to observe the difference between news sources in term of news tweet content.

The percentage of news tweets' content were significantly differ by news sources  $\chi^2(2, N = 40) = 21.54, p < .001$ .

A hundred percent ( $N = 20$ ) of news organization account provide title of news as their news tweets' content, meanwhile the content for news tweets by individual account were more distributed across the three categories, a total 30 percent ( $N = 6$ ) provide title of news as their content, indicating that the tweet refer to a longer report, either to a blog or to a chirpstory. Another 30 percent ( $N = 6$ ) provide opinion as their news tweets' content, and as much as 40 percent ( $N = 8$ ) provide a witness account as their news tweets' content.

Table 2

*Descriptive statistics: Frequency (Freq.) and percentage (%) of news tweets characteristic*

<i>Characteristics</i>		<i>News sources</i>			
		<i>News organization</i>		<i>Individual</i>	
		<i>Freq.</i>	<i>%</i>	<i>Freq.</i>	<i>%</i>
Profile picture	<i>Icon</i>	1	5	15	75
	<i>Index</i>	3	15	0	0
	<i>Symbol</i>	16	80	3	15
	<i>Other</i>	0	0	2	10
Profile name	<i>Real name</i>	0	0	13	65
	<i>Pseudonym</i>	0	0	4	20
	<i>Organization name</i>	20	100	1	5
	<i>Nick name</i>	0	0	2	10
Username	<i>Incl. real name</i>	0	0	16	80
	<i>Pseudonym</i>	0	0	3	15
	<i>Incl. organization name</i>	20	100	1	5
Full web link	<i>Yes</i>	6	30	5	25
	<i>No</i>	14	70	15	75
Short web link	<i>Yes</i>	14	70	2	10
	<i>No</i>	6	30	18	90
Compiled tweet link	<i>Yes</i>	0	0	3	15
	<i>No</i>	20	100	17	85

Picture	<i>Yes</i>	0	0	2	10
	<i>No</i>	20	100	18	90
Hashtag	<i>Yes</i>	0	0	2	10
	<i>No</i>	20	100	18	90
Mention	<i>Yes</i>	1	5	13	65
	<i>No</i>	19	95	7	35
Content	<i>Title of news</i>	20	100	6	30
	<i>Opinion</i>	0	0	6	30
	<i>Witness</i>	0	0	8	40

## **5. Study 2: Online questionnaire**

### **5.1. Method**

#### **5.1.1. Design**

In this study an online experiment was employed to test the proposed hypothesis. The independent variables are the source of the news tweet (news organization account/ individual account), the dependent variables in this design are the trust aspect, the information aspect, and the re-tweet intention. The expectation was that the source of news would influence trust and information aspect of news, and will have impact on re-tweet intention. The main purpose of this online experiment was to analyze the impact of news tweets from different news sources on a Twitter user.

The study employed a between-subject experimental design, wherein respondents were either exposed to a news tweet from news organizations or to a news tweet from individuals. The reasons why a between-subject design was chosen were; first, to avoid contamination of extraneous factor aside from the determined variable; second to eliminate the confounding effect of participants identifying the objective of the experiment; third, the influence of news tweet between the two sources could be analyzed independently. Thus, the experimental design consisted of two conditions. In the first condition respondents were exposed to three news tweets from news organization accounts on Twitter, whereas in the second condition respondents were exposed to three news tweets from individual accounts on Twitter.

### 5.1.2. Stimuli

The impact of news tweets was examined by exposing participants to news tweet tweeted by either news organization account or individual account. The preliminary investigation result became our guideline in creating the stimulus. We created the stimulus as similar as possible to real tweets. To do this we must find the font used in Twitter interface, however to as much as we try to find the exact similar font, we could not find the right font, therefore it led us to a different feeling when seeing the tweet. Therefore we made use of our personal Twitter account, uploaded profile pictures, made profile names and usernames then tweeted news tweets as appropriated by preliminary investigation result. The news tweets then print-screened to an image processor software.

Six news tweets were made with resolution of 600 x 120 pixels, three news tweets employed news organization account characteristics and three news tweets employed individual account characteristic.

Table 3

*Stimulus description*

<i>News source</i>		<i>Tweet length</i>	
		Words	Characters
1	News organization	7	60
2	News organization	10	82
3	News organization	7	58
4	Individual	14	96
5	Individual	12	76
6	Individual	11	79

**5.1.3. Procedure**

The questionnaires were powered by Qualtrics.com, we made use of Tilburg University Communication and Information Sciences account on the survey resource. The survey distributed between 5<sup>th</sup> of June to 19<sup>th</sup> of June 2013. The participation to the questionnaire was limited only to Indonesian who has a Twitter account. Given that the questionnaire was distributed to Indonesian, Indonesian version of the questionnaire was made available with language switch option on the upper right of the questionnaire. We gathered the respondent mainly by sharing links on social media platforms such as Facebook and Twitter. Family, friends, and colleague were asked favor to help the survey distribution. Indonesian writers, academic community, experts, journalist, were also requested on Twitter to re-tweet the link to the questionnaire.

After a brief introduction about the study and the aim of the study, the respondent immediately directed to the online experiment on the questionnaire. Respondents were exposed to a news tweet from either news organization account or individual account and were asked to rate how trustworthy they perceive the news tweet is, how informative they perceive the news tweet is, and their intention to re-tweet the particular tweet. They saw three different news tweets and rate them also differently. The next part is about news tweet motivation, respondent were asked their likelihood to tweet in certain situation, such as when respondent in the middle of traffic jam, when they witness a natural disaster, etc., with this question, we filtered respondent with more than three likely and/or more than three most likely to answer the subsequent question. If the opposite is true, they were navigated to another question. The subsequent question asked them about why they tweet about event or happening on their surroundings. The option is limited to four reasons, and respondent rated agreement on each reason. The next set of question is about trending topics on Twitter, initially respondent were asked if they are familiar with trending topic. We made use of skip logic function to this question. After the questions on trending topics, respondents were navigated to general questions about Twitter, then set of question about where the respondents get news from and how trustworthy they think their news sources are. The final part of the questionnaire is demographic questions (gender, age and the highest education they have completed).

#### **5.1.4. Participants**

The questionnaires were available online from 5<sup>th</sup> of June to 19<sup>th</sup> of June. A total 259 respondents participated in the news organization condition or the first condition questionnaire, however only 78 respondents completed the questionnaire thoroughly,

several responds were also eliminated because of repeated participations which can be detected with IP address. Meanwhile, a total 289 respondents participated in the individual condition or the second condition questionnaire, and 113 respondents provided us a complete data. The total respondent for both conditions is 191 respondents, 62.8 percent ( $N=120$ ) of which are female with an average age of 22.69 ( $SD= 4.12$ ). The youngest respondent was 13 years old, and the oldest respondent was 40 years old. We recoded the question on level of education into two binary variables, lower education consisted of respondent who have completed less than high school and high school education, higher education consisted of respondent who have completed college to master education. Fifty five percent ( $N= 105$ ) of respondent were highly educated.

The respondents were assigned randomly in either the first or the second condition. As noted earlier, 78 respondents filled out the first condition and 113 respondents filled out the second condition. The first group consisted of 43 percent ( $N= 34$ ) males and 56.4 percent ( $N=44$ ) females. The second group consisted of 32.7 percent ( $N=37$ ) of males and 67.3 percent ( $N= 76$ ) of females. There were no significant gender differences between the two conditions,  $\chi^2(1, N = 191) = 2.32, p = .127$ . The average age for the first group was 24.72 ( $SD= 4.31$ ), and it ranged from 16 to 40 years old, meanwhile the average age for the second group was 21.29 ( $SD= 3.34$ ), ranged from 13 to 33 years old. There was a significant difference in age between two groups,  $t(189) = 6.18, p < .001, r = .16$ . The education level for both groups was quite different, for the first group 73.1 percent ( $N=57$ ) of respondent was on higher education category, and 26.9 percent ( $N=21$ ) of respondent was on lower education category. Meanwhile for the second group 42.5 percent ( $N= 48$ ) of respondent was on higher education category, and 57.5 percent ( $N= 65$ ) of respondent was on lower

education category. There was a significant difference in term of education level for both conditions,  $\chi^2 (1, N= 191)= 17.46, p< .001$ .

#### **5.1.5. Measurements**

There are three dependent variables measured in the online experiment: perceived trust, perceived information, and re-tweet intention. The respondents were asked to rate each variables after exposed to the news tweets.

##### *Trust*

Perceived trust of news tweets consisted of three items based on stimulus and was measured with a 5-point-scale from (1) Not trustworthy at all to (5) Very trustworthy. The measure tested to be somewhat below the level of reliability ( $\alpha= .6$ ), however we guide our reliability value as suggested by Robinson, Shaver, and Wrightsman(1991) which accepted Cronbach  $\alpha$  values greater than .60, therefore the reliability for trust is considered as acceptable.

##### *Information*

Perceived information of news tweets consisted of three items based on stimulus and was measured with a 5-point-scale from (1) Not informative at all to (5) Very informative. The measure tested to be acceptable ( $\alpha= .61$ ).

##### *Re-tweet*

Re-tweet intention of news tweets consisted of three items based on stimulus and was measured with a 5-point-scale from (1) I would not re-tweet this at all to (5) I would certainly re-tweet this. The reliability of the measure is good ( $\alpha= .71$ ).

There are two measures of motivations as we proposed earlier: community involvement and alternative media. Prior to rate a 5-point Likert scale for each measure, the respondents were filtered with a news tweet likelihood question.

#### *Community involvement*

The first motivation category is community involvement. The scale consisted of two items “because people need to be aware of the situation” and “because I need to support other in providing the information”. The items were rated with 5-point-scale, ranged from (1) Strongly disagree to (5) Strongly agree. The measure tested to be acceptable ( $\alpha = .61$ ).

#### *Alternative media*

The second motivation category is alternative media. The scale consisted of two items “because news organization report is different from reality” and “because there are less cover by news organization”. The items were rated with 5-point-scale, ranged from (1) Strongly disagree to (5) Strongly agree. The reliability of the scale was acceptable ( $\alpha = .65$ ).

#### *News media use*

In this measure, we included six news sources: newspaper, television, radio, website, Facebook, and Twitter. Respondents scale frequency of use started from (1) never, to (5) always.

#### *News media trust*

The measure is made as appropriated by news media use, respondent scale the news media sources in news media use started from (1) not trustworthy at all to (5) very trustworthy.

*Citizen journalism*

This scale consist of 5 items, we asked the participant about the likelihood that they update tweet in certain situation which were (1) watching sport match (2) in the middle of traffic jam (3) witnessing an accident (4) watching a live performance (5) witnessing a natural disaster. The respondents rated their likelihood to tweet for each item. The scale tested to be acceptable ( $\alpha = .65$ ).

*Control measurements*

In this measure, we determine three control measurements that we presume might have contribution on the skewness of dependent measure: first, gender (male and female); second is education, consist of lower education which is any education equal or lower than high school and higher education which is any education level equal or higher than diploma I. Diploma I is an education level prior to undergraduate degree; and third is age, consist of two categories which are teenagers (less or equal to 17 because Indonesian considered to be coming of age when they are seventeen), and adult (more than 18).

**5.2. Results****5.2.1. Data preparation**

Prior to testing our hypothesis, we prepared the data by computing new variables and normality tests. We computed new variables for the measures: trust, information, re-tweet, community involvement, and alternative media. Next, we observe the normality for each measure by Kolmogorov-Smirnov tests, histograms, Q-Q plots and box plots. We found several suspected outliers in trust measure, information measure, re-tweet measure, and

community involvement measure. Particularly on community involvement measure, we found several outliers, however the number of outliers and suspected outliers did not surpass 5 percent of population, therefore we decided to leave the outliers and suspected outliers in the data. Further, we consulted Kolmogorov-Smirnov tests to see the deviation from normality, and indeed we found that none of the measure met the assumption of normality. The trust measure ( $D(191)=.128, p<.001$ ), the information measure ( $D(191)=.112, p<.001$ ), the re-tweet measure ( $D(191)=.127, p<.001$ ), the community involvement measure ( $D(191)=.266, p<.001$ ), and the alternative media measure ( $D(191)=.201, p<.001$ ) were significantly deviated from normality. Regardless of non-normality of the test, we went further to test the hypotheses.

### **5.2.2. Hypotheses testing**

In this section, the proposed hypotheses were tested. The objective of this study is to investigate the impact of news tweets from news organization account and news tweets from individual account on a Twitter user. We measure the impact with three aspects: trust, information, and re-tweet intention. We also attempted to know the better predictor of re-tweet intention between trust and information aspect on a news tweet. The next objective is to investigate stronger motivation for people to engage in citizen journalism on Twitter. The aforementioned objectives were proposed in order to scaffold the theory of shift in citizen journalism practice with empirical evidences. We also aimed to discover more about Twitter user behavior with citizen journalism as a framework.

*Hypothesis 1*

An independent t-test was executed to find out whether Twitter users significantly perceive news tweets from news organization account differently from news tweets from individual account. Before executing the test, we observed the normality for each measure and we found out that the measures trust, information, and re-tweet violated the assumption of normality. Levene's test of homogeneity of variance also indicated that only re-tweet measure met the assumption of homogeneity. Therefore this result should be interpreted with caution. Regardless of these, we advanced to test the first hypothesis:

**H1:** News tweets tweeted by news organization account will be perceived as (a) more trustworthy and (b) more informative, therefore respondent will have higher intention to (c) re-tweet, compare to news tweets tweeted by individual account.

We have also formulated an alternative hypothesis:

**H0:** There is no significant difference on impact of news tweet from news organization account and individual account in (1) trust, (2) information, and (3) re-tweet intention on a Twitter user.

Results indicated that the average trust for news tweets from news organization account ( $M= 3.12, SD= .77$ ) was slightly higher than average trust for news tweets from individual account ( $M= 3.02, SD= 3.12$ ), however this difference was found to be not significant,  $t(189)= .92, p= .357$ . Respondent rate on how informative the news tweets are, and it was found that the average information for news tweets from news organization account was slightly lower ( $M= 3.23, SD= .80$ ), than the average information for news tweets from news

individual account ( $M= 3.27, SD= .69$ ), however the difference found to be not significant,  $t(189)= -43, p= .670$ . Re-tweet intention for news tweets from news organization account was higher ( $M= 2.05, SD= .98$ ), than re-tweet intention for news tweets from individual account ( $M= 1.98, SD= .81$ ), the difference however found to be not significant,  $t(144.20)= .59, p= .557$ . According to these results then, our alternative hypothesis is supported.

Table 4

*Descriptive statistics: mean scores (M) and standard deviation (SD) of trust, information, and re-tweet intention for different news sources*

<i>Manipulation</i>		<i>Trust</i>		<i>Information</i>		<i>Re-tweet</i>	
<i>Source</i>		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
News organization account	1	3.04	.89	3.23	1.02	1.94	1.06
	2	3.01	1.10	3.12	1.02	2.08	1.25
	3	3.32	1.04	3.35	1.07	2.15	1.15
	Total:	3.12	.77	3.23	.80	2.05	.98
Individual account	1	2.63	.88	2.95	.94	1.57	.95
	2	3.19	.89	3.54	.93	2.21	1.10
	3	3.26	.96	3.35	.93	2.15	1.15
	Total:	3.02	.67	3.27	.69	1.98	.81

*Hypothesis 2*

A linear regression was conducted to test the second hypothesis. The second hypothesis proposed that compare to information aspect in a news tweet, trust aspect will be a better predictor for re-tweet intention. Before running the analysis, we tested several assumptions for the regression test, such as multicollinearity, homocedascity, normality and independent errors. Based on the test we found that the data was not biased to multicollinearity, as the value of VIF is smaller than 10 (Myers, 1990 in Field, 2009) and the tolerance level is larger than 0.2 (Menard, 1995 as stated in Ibid.), indicated that we need not worry about the multicollinearity. The result of homocedascity as well as normality also indicated that it should not be our concern. The Durbin-Watson value also indicated that the independent errors would not lead to worry. Given this, we analyzed our second hypothesis as follow:

**H2:** Trust in a news tweet is a better predictor of re-tweet intention compare to information in a news tweet.

Results indicated that trust and information significantly explained 22.9 percent of re-tweet intention variance ( $R^2 = .229$ ,  $F(2, 188) = 27.95$ ,  $p < .001$ ). It was found that trust significantly predicted re-tweet intention ( $\beta = .422$ ,  $t = 3.518$ ,  $p < .001$ ), whereas information did not significantly predict re-tweet intention ( $\beta = .196$ ,  $t = 1.68$ ,  $p = .09$ ). Herewith, or second hypothesis is supported.

Table 5

*Summary of linear regression analysis for variables predicting re-tweet intention (N= 191)*

	<i>B</i>	<i>SE B</i>	$\beta$
Constant	.078	.268	
Trust	.422	.120	.343
Information	.196	.116	.164

Notes:  $R^2 = .229$  ( $ps < .05$ )

### *Hypothesis 3*

A set of compare means test was conducted to test the third hypothesis. The third hypothesis concerned about motivation to engage in citizen journalism on Twitter. We made two motivation categories: community involvement and alternative media. We attempted to investigate which is a stronger motivation for Twitter user to engage in citizen journalism on Twitter. Before running the analysis we tested the normality for the measures and both were significantly deviate from normality observing the value of Kolmogorov-Smirnov test. Therefore, the results should be taken with caution.

Nevertheless, we analyzed the following hypothesis and sub-hypothesis:

**H3:** Community involvement is a stronger motivation for Twitter user to engage in citizen journalism on Twitter than alternative media.

**H3a:**Community involvement is a stronger motivation for Twitter user with higher education to engage in citizen journalism on Twitter than alternative media.

**H3b:**Male Twitter user has stronger motivation in (a) community involvement and in (b) alternative media than females.

A dependent t-test is conducted to test the third main hypothesis. As expected, community involvement as motivation to engage in citizen journalism on Twitter is significantly stronger ( $M = 4.01, SD = .58$ ) than alternative media ( $M = 3.52, SD = .70$ ),  $t(83) = 5.62, p < .001, d = .62$ . Therefore, our third main hypothesis is accepted

Next, we conducted a dependent t-test with select cases function to find out what is the motivation for higher educated Twitter user to engage in citizen journalism on Twitter. Results showed that for Twitter user with higher education, community involvement served to be a significantly stronger motivation ( $M = 4.08, SD = .47$ ) than alternative media ( $M = 3.54, SD = .75$ ),  $t(53) = 5.20, p < .001$ . Hence, our sub-hypothesis is supported.

Lastly, we conducted two independent t-tests to find out what is the difference for male and for female in their motivation to engage in citizen journalism on Twitter. Results indicated that in community involvement, there is no significant difference for both male ( $M = 4.03, SD = .69$ ) and female ( $M = 4, SD = .50$ ),  $t(82) = .238, p = .812$ . Whereas in alternative media, alternative media is significantly served as a stronger motivation for male ( $M = 3.78, SD = .67$ ) than for female ( $M = 3.36, SD = .68$ ),  $t(82) = 2.74, p = .008, r = .08$ . Our second sub-hypothesis thus is partially supported, as motivation for male to engage in citizen journalism was only significantly higher for alternative media.

### *Hypothesis 5*

Before running the analysis, a descriptive data will be presented in this section. The descriptive data consisted of frequency of checking trending topics on Twitter, frequency of participating in trending topics on Twitter. A descriptive about how Twitter users perceive trending topic will also be presented, divided into three categories: indicator of recent

happening, public opinion reflection, and a faster way to know about news. The following hypothesis could be tested:

**H5:** Trending topics will be perceived as (a) indicators of recent happening, (b) public opinion reflection, and (c) a faster way to know about news.

Among 191 respondents, 94.6 percent of which ( $N=175$ ) reported to be familiar with the term “trending topics” on Twitter. The filtered respondent were asked about frequency of checking trending topics, on average the respondents rarely check the trending topics on Twitter ( $M= 2.39, SD= .84$ ). The frequency of participation also indicates that on average respondents’ participation on trending topics was rare ( $M=1.99, SD= .76$ ). Next we asked the respondents about their opinion about trending topics on Twitter: if trending topics indicate recent happening; reflect public opinion; and is a faster way to find out about news. We found out that on average, the respondents were neither agree nor disagree to the idea that trending topics indicate recent happening ( $M= 3.14, SD= .93$ ), the respondents were also neither agree nor disagree to the idea that trending topics reflect public opinion ( $M=3.31, SD= .89$ ), and the respondent were also neither agree nor disagree to the idea that trending topics are faster way to find out about news ( $M=3.01, SD=.95$ ). These results indicated that our fifth hypothesis could not be supported.

Table 6

*Descriptive statistics: Frequency (Freq.) & percentage (%) of trending topics*

<i>Trending topics</i>		<i>Freq.</i>	<i>%</i>
Frequency of checking	Never	18	9.4
	Rarely	96	50.3
	Sometimes	49	25.7
	Most of the time	15	7.9
	Always	3	1.6
Frequency of participating	Never	47	24.6
	Rarely	93	48.7
	Sometimes	36	18.8
	Most of the time	3	1.6
	Always	1	.5
Indicator of recent happening	Strongly disagree	7	3.7
	Disagree	41	21.5
	Neither agree nor disagree	57	29.8
	Agree	71	37.2
	Strongly agree	5	2.6
Public opinion	Strongly disagree	5	2.6
	Disagree	31	16.2
	Neither agree nor disagree	53	27.7
	Agree	86	45.0

	Strongly agree	6	3.1
Faster news source	Strongly disagree	7	3.7
	Disagree	51	26.7
	Neither agree nor disagree	65	34
	Agree	50	26.2
	Strongly agree	8	4.2

### *Hypothesis 6*

The sixth hypothesis proposed that news media such as newspaper, television, and radio perceived to be more trustworthy compare to news media such as website, Facebook, and Twitter. The sub-hypothesis proposed the higher the frequency of Twitter user to use Twitter as news source, the more likely they trust Twitter as a news source. A one way Anovawas conducted to test the sub-hypothesis. A descriptive aboutnewsmedia use and news media trust will be presented to address the following hypothesis:

**H6:** Newspaper, television, and radio perceived to be more trustworthy than website, Facebook, and Twitter

The respondents ( $N=191$ ) reported that the most frequent news media that they use is Twitter ( $M= 3.99$ ,  $SD= .76$ ), slightly more frequent than website ( $M= 3.98$ ,  $SD= .75$ ), followed by television ( $M=3.47$ ,  $SD= 1.01$ ), Facebook ( $M= 3.35$ ,  $SD= 1.03$ ), newspaper ( $M= 2.92$ ,  $SD= 1.07$ ), and radio ( $M= 2.39$ ,  $SD= .94$ ) respectively. On the other hand, the respondent reported that the most trustworthy news media is newspaper ( $M= 4.11$ ,  $SD= .71$ ), followed by television ( $M= 3.88$ ,  $SD= .80$ ), radio ( $M= 3.75$ ,  $SD= .75$ ), website ( $M=$

3.54,  $SD = .72$ ), Twitter ( $M = 3.32$ ,  $SD = .67$ ), and Facebook ( $M = 2.88$ ,  $SD = .76$ ) respectively. Therefore hypothesis 6 is soundly supported.

Table 7

*Descriptive statistics: Mean (M) & standard deviation (SD) of media use and media trust*

<i>Media</i>	<i>Use</i>		<i>Trust</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Newspaper	2.92	1.07	4.11	.71
Television	3.47	1.01	3.88	.80
Radio	2.39	.94	3.75	.75
Website	3.98	.75	3.54	.72
Facebook	3.35	1.03	2.88	.76
Twitter	3.99	.76	3.32	.67

The next step is to test the distribution on Twitter media use and Twitter media trust, we discovered using Kolmogorov-Smirnov test that each groups violated the assumption of normal distribution. Regardless or non-normality, we advanced to test the formulated hypothesis:

**H6a:** Respondents who frequently use Twitter as news source are more likely to trust Twitter as a news source.

A one way Anova was conducted to test the hypothesis. The result indicated a relation between Twitter media use and Twitter media trust,  $F(3, 187) = 8.96$ ,  $p < .001$ . The post-hoc Bonferonni test showed that respondent who's who most of the time use Twitter as a news

media ( $M= 3.39, SD= .64$ ), and those who always use Twitter as a news media ( $M= 3.56, SD= .64$ ), significantly different in perceiving Twitter as trustworthy to those who rarely ( $M= 2.60, SD= .89$ ) and sometimes ( $M= 2.98, SD= .57$ ) use Twitter as a news media. Therefore the sub-hypothesis is supported.

### *Hypothesis 7*

This section attempted to prove the seventh hypothesis which proposed that respondents who access Twitter from a cell phone are more likely to engage in citizen journalism on Twitter. A descriptive analysis was run to know Twitter access devices frequency.

The result indicated that the respondents most frequently access Twitter from a cell phone ( $M= 3.94, SD= 1.09$ ), followed by laptop ( $M= 3.36, SD= 1.12$ ), tablet devices ( $M= 2.28, SD= 1.47$ ), and from a computer ( $M= 2.22, SD= 1.13$ ) respectively. We tested the normality for the measure and we found out that for group of respondent who sometimes access Twitter from a cell phone, and for group that always access Twitter from a cell phone violated the assumption of normality ( $D(30)=.175, p= .020$ , and  $D(69)= .150, p= .001$  respectively). Nevertheless, the following hypothesis was tested:

**H7:** Respondents who frequently access Twitter from a cell phone are more likely to engage in citizen journalism on Twitter.

A one way Anova was executed to test the seventh hypothesis and the result showed a relation between frequency of accessing Twitter from a cell phone to citizen journalism practice,  $F(3,187)= 3.14, p= .027$ . Post hoc using Bonferroni indicated that only those who always access Twitter from cell phone ( $M= 3.71, SD= .79$ ) more likely to practice citizen

journalism than those who sometimes access Twitter from cell phone ( $M= 3.20, SD= .88$ ).

However for those who rarely access Twitter from cell phone ( $M= 3.56, SD= .43$ ), and those who most of the time access Twitter from cell phone ( $M= 3.43, SD= .75$ ) did not differ significantly in citizen journalism practice to any other group. Herewith, our seventh hypothesis is partially supported.

## **6. Discussion and conclusion**

The objectives of this study were, first to discover the impact of news tweets from different news sources, news organization account and individual account, on a Twitter user. The impact was measured with three categories: trust, information, and re-tweet intention. Second, this study aimed to find out the motivations for Twitter user to engage in citizen journalism on Twitter, the motivation classified into two categories: community involvement and alternative media. Third, this study aimed to unravel citizen journalism aspect of Twitter, particularly on trending topics, Twitter use and trust, and mobile character of Twitter. Two studies were conducted to accomplish the study objectives. In this section, the main findings, limitations, future research and implications will be discussed.

### **6.1. Main findings**

Two studies were conducted to answer the research proposals. The first study is a quantitative study on news tweets characteristic of different news sources on Twitter. Ten characteristics were determined to code the differences: (1) profile picture, (2) profile name, (3) username, (4) message length, (4) full web link, (5) short web link, (6) compiled web link, (7) picture, (8) hashtag, (9) mention, (10) message content. The findings for the first study were employed to make the stimulus in online experiment on the subsequent study. The subsequent study consisted of two sets of questionnaire; the first part of each questionnaire contained an online experiment. Respondent were exposed to either set. The online experiment was employed to address the research question proposed, in addition after the online experiment respondents were exposed to questions about Twitter that

related to citizen journalism practice. This was done to answer the remaining research questions.

#### **6.1.1. Finding study 1: preliminary investigation**

The main goal of the preliminary investigation is to grasp an understanding about news tweets characteristic of news organization account on Twitter, and individual account on Twitter. After observing the result in hand, we adopted the characteristic to create an online questionnaire with news tweets from news organization account and from individual account. We made the tweets with several remarks: in term of account news organization profile picture is significantly symbolic, and individual profile picture is significantly iconic. News organization significantly provide organization name as profile name, whereas individual account show variation in providing a profile name. News organization significantly put organization name as username, whereas individual account significantly include their real name as their username. In term of tweet message, the length of tweet differs significantly on number of characters and number of words, with individual account tweet longer compare to news organization. News organization significantly include short web link inside their tweet, whereas individual account significantly mention other user in their tweet. The content is also significantly different, whereby news organization are more likely to give title of news as their tweet, and individual account vary in their content, they could give opinion, witness account, as well as title of news as their tweet.

### 6.1.2. Finding study 2: Online questionnaire

#### *Hypothesis 1*

The first hypothesis is that the news tweets from news organization account will be perceived as more trustworthy, more informative, thus affect a positive re-tweet intention. We based the first hypothesis on scientific findings (Kiosis, 2001; Choi et. al., 2006; Kraft, 2010; Schmierbach&Oeldorf-Hirsch, 2012) which posited that in term of trust and credibility, audience deem to evaluate news tweets by news organization as more trustworthy and credible. However, we formulated an alternative hypothesis which proposed that there will be no significant difference on impact of news tweets from different sources. We formulated this hypothesis based on Rodriguez's theory (2001) which was supported with radical democracy theory (Downing, 2001). Rodriguez proposed that we should not focus our attention on citizen journalism only as an opposition to mainstream media, because this will limit us in binary thinking of power: powerfulness and powerlessness, whereas power in radical democracy theory is consistently shifting. Focusing on binary categorical will also entrap us in David-Goliath scenario, in which citizen journalism might were frequently declared a failure (Ibid).

The result indicated that indeed the news from news organizations was not perceived as more trustworthy, more informative, and more preferable compare to news from individuals. There was no significant difference in either news sources indicated that people are no longer assign powerfulness to mainstream media, and powerlessness to citizen journalism. With this finding, the fact that power revolves was explained, and that there was no necessary preference for news source.

*Hypothesis 2*

Hypothesis 2 concerned about which will be a better predictor of re-tweet intention, trust or information. We predicted that trust in a news tweet is a better predictor of re-tweet intention compare to information in a news tweet. The hypothesis was based on scholarly articles (Kiosis, 2001; Choi et. al, 2006; Kohring&Matthes, 2007; Kraft, 2010; Jenkins, 2012) that suggested trust as a very important aspect on news media. The finding indeed supported the hypothesis: trust significantly predicted re-tweet intention. This would mean that in order for a tweet to be re-tweeted, a tweet should build up trust. The finding is reflected upon phenomenon that has been discussed earlier, Andy Carvin who is coming from a reputable media was praised for his Storify.com convention and AdeAyu S who is a pseudonymous account but maintains a consistent identity, both secured trust and therefore people keep on supporting them. Information aspect in a tweet, although explain an amount of re-tweet intention, it is not significant, which means that although a tweet contains information, people would still less likely to re-tweet the tweet. This finding support for Jenkins' statement (2012): "Journalism is a profession based on trust. People need to know that the news they are viewing, or listening to, or reading is fair and accurate and honest."(p.2).

*Hypothesis 3*

The third research question concerned about citizen journalism motivation; why would a Twitter user engage in citizen journalism on Twitter. This study aimed to scaffold empirical evidences about the shift on citizen journalism practice, namely from alternative media to citizenship enactment (Rodriguez, 2001). It is undeniable that to provide an alternative

was the initial instigation for citizen journalism, this is due to the view that mainstream media is the power that controls the information flow, however as power revolves (Ibid.) and as oppression is lack of continuity (Downing, 2001), we should be able to observe the shift from alternative provision to citizenship enactment. Citizenship enactment is becoming the successor of previous motivation, because citizenship is an active and constructive entity.

To address this proposal, we made two motivation categories: community involvement and alternative media. We hypothesized based on the theoretical framework that community involvement should be a stronger motivation for Twitter users to engage in citizen journalism. We discovered that indeed community involvement served as a stronger motivation than alternative media for Twitter users to engage in citizen journalism. We also observed the motivation for Twitter user with higher education, and there is a synchrony to the former finding. Lastly, we observed the difference for gender, and we found no significant difference in community involvement for gender, yet we found that male is significantly higher in alternative media than female. This would suggest that male might have oppositional thinking than female. However it is noteworthy that for both gender categories, the average on community involvement is still higher than alternative media.

By this result, it is sound to claim that there is a shift in motivation to engage in citizen journalism. This result supported Rodriguez's proposal, showed that oppositional thinking toward mainstream media is getting weaker compare to the opposition in the past where alternative provision is centric in citizen journalism emergence. We analyzed based

on the theoretical framework of the study that ‘oppression’ of mainstream media to the marginal is indeed lack of continuity (Downing, 2001). People do not necessarily take mainstream media as an opponent as there is no context suggesting so, therefore the motivation to provide an alternative to mainstream media is less relevant.

Rodriguez has also pointed out that the reason of people engage in citizen journalism is the need to enact one’s citizenship. Citizenship, as described in theoretical framework involves a daily basis activity which expressed through multiple forms. Citizens related to empowerment, “as citizens constantly participate in actions that reshape their own identities, the identities of others, and their social environments, they produce power.” (Ibid., p. 19). One of the channels to express citizenship is through community involvement; by actively interacting with each other, and this could take place in everyday communication. Thus, community involvement served as a stronger motivation to engage in citizen journalism on Twitter.

#### *Research question 4 addressed*

Research question 4 concerned about the interaction from research question 1 and 3. We did not specify a hypothesis on the question as we intended to address the question qualitatively. We have discussed the findings of research question 1 and 3, and from our observation, there is a clear interaction between the findings. We firstly found that there was no significant difference on impact of news tweet from different news sources. This would mean that people do not necessarily think that a source is more preferable than another in term of trust as suggested with previous finding (Kiosis, 2001; Choi et. al., 2006; Kraft, 2010; Schmierbach&Oeldorf-Hirsch, 2012). Secondly, when people were asked about

their motivation, they reported that the reason to engage in citizen journalism was because they wanted to support the community, they did report agreement that they wanted to provide alternative, but the former was significantly stronger than the latter. This would mean that people do not perceive news tweets in oppositional thinking, they do not necessarily think that either news organization is superior as suggested by previous finding (Kiosis, 2001; Choi et. al., 2006; Kraft, 2010; Schmierbach&Oeldorf-Hirsch, 2012), or citizens' journalist is superior as suggested by recent assumption on radical shift in journalism convention (Kirkpatrick, 2011; DeMers, 2013; Mason, 2013). People did not skew their preference and therefore reported that instead of alternative provision, what motivated them to engage in citizen journalism is community involvement. Both findings suggested that there is no binary categorical between mainstream journalism and citizen journalism.

### *Hypothesis 5*

Hypothesis 5 concerned about trending topics on Twitter. As posited by Kwaket. al (2010) in their quantitative finding regarding trending topics, it is revealed that more than 85 percent of trending topics were headline news and persistent news in nature, we expected that this reflected the power of trending topics, therefore we assumed that trending topics should be perceived as an indication of recent happening, reflection of public opinion, and a faster news source by Twitter user. However, our finding showed a non-convincing power of trending topics. For each aspect, Twitter users were rather neutral, nether agreeing on the idea, nor disagreeing. This might be due to the low frequency for our respondent to check and to participate in trending topics on Twitter, or might be due to overestimation of

trending topics itself, because although proven to be in sync with headline news and persistent news by Kwak et. al. (Ibid.), trending topics do not give certain stimulation for participation, hence it did not convince Twitter user to perceive trending topics as indicator recent happening, reflection of public opinion, and faster news source.

### *Hypothesis 6*

Hypothesis 6 is about news media use and news media trust. Numerous study have been addressing the issue of trust in news media(Kiosis, 2001; Choi et. al, 2006; Kraft, 2010; Schmierbach&Oeldorf-Hirsch, 2012), and found that in general, without any given context such as who made the news, news media by professional perceived as more trustworthy than other source. Our finding also suggested the same. It is interesting to observe that although frequency of media use for newspaper, television, and radio is rather low compare to frequency for Twitter, website, and Facebook, people persistently perceive newspaper, television and radio as more trustworthy compare to Twitter, website and Facebook.

The sixth hypothesis also consisted of a sub-hypothesis that examined if the frequency of media use in Twitter correlate with media trust in Twitter, and this is indeed the case, which means that the more frequent people use Twitter as a news media source, the more likely they trust Twitter as a news source. Although probably, people who use Twitter as a news media source frequently, trust Twitter less than newspaper, television, and radio.

We have pointed out that there is a growing assumption and prediction about the radical change in journalism convention, and this result partially supported the assumption.

People do retrieve news more from social networking sites and websites, but doesn't necessarily mean that they trust the digital media more than traditional media. For an instance, if a news organization has both newspaper and website, people would still trust the newspaper. It is worth to note that this hypothesis is different from hypothesis 1 in several respects: first, it compares the medium and not the news source; second, it has no given context.

### *Hypothesis 7*

The last hypothesis concerned about Twitter access devices, and if people who access Twitter from a cell phone are more likely to engage in citizen journalism. We expect to find that people who frequently access Twitter from cell phone are indeed reported more likelihood to engage in citizen journalism on Twitter. Cell phone was chosen because first it represents compression and convergence in ICT as noted earlier; second, Twitter has an inherent mobile character which means it is the most suitable to access from a cell phone. If the hypothesis is proved, it should support the growing assumption that ICT advances and social network advances are positively correlated to the increase in citizen journalism practice.

We found that our hypothesis is partially supported. Frequent access to Twitter from mobile devices, particularly cell phone, did not completely in line with the likelihood to engage in citizen journalism.

## **6.2. Limitations and future research**

With this study we have discovered a very interesting results regarding citizen journalism on Twitter, however the study has some limitations. First of all, since the

questionnaires distributed online, we cannot confirm the assumption of independence which is a very important issue. This also affect us in less control for age and education level of respondent, therefore we found a significant difference for age and education in the two conditions. Secondly, we have made our stimulus based on the preliminary investigation; we constructed each as similar as possible as it represent, however the profiles that we have made were completely novel to our respondents, whereas we have discussed earlier that trust is a very important aspect in a news. If people are exposed to an unknown news organization, or unknown individual that tweet about certain event, they might inquire to know about the reputation of the accounts. For this reason, we have a relatively neutral means in trust, information, and re-tweet intention for both conditions. Thirdly, we have conducted several assumption tests such as reliability, normality, and homogeneity. Majority of our scales found to be of lower reliability, this would mean that we have built scales that might have very little in common, none of scales also met the assumption of normality, and majority of our data in certain variables have violated the assumption of homogeneity. Therefore, we fully advised to take our results with caution.

We suggest future research to have more control on the respondents hence the assumption of independence could be achieved. We also advised to have more realistic stimulus, maybe to actually compare impact of real news account from real news organization and real individual, as we believe that reputation and credibility play big roles in journalism practice.

### **6.3. Implications**

#### **6.3.1. Theoretical implication**

On the one hand, the results of preliminary investigation had contributed to our online questionnaire building, on the other hand, the finding on preliminary investigation also implicate to the theory. This finding is particularly providing empirical supports for Atton's (2003) and Rodriguez's (2001) statement that indeed news organization and individual account are different with regard of economic aspect, news organization account included short link due to the requirement of traffic on their websites. With regard of communication hierarchy, both news sources are highly different, as individual account include mentions in their news tweet, implying that communication mode in citizen journalism is horizontal and employ immediate feedback, whereas news sources that is significantly less in mentioning users implying vertical communication mode, thus employ delayed feedback.

Our finding also provide a support for the theory by Rodriguez, that there is a shift in citizen journalism practice, namely from alternative media to enactment of citizenship, therefore Rodriguez proposed to re-name alternative media as citizens' media. The support is shown through: no necessary segregation between news organization and citizens' media, and community involvement served as a stronger motivation than alternative provision to engage in citizen journalism, particularly on Twitter. This implies that indeed people do not think in binary categorical or oppositional thinking.

### **6.3.2. Practical implication**

Twitter has become a global platform that upholds information aspect; it is the first platform that enables open communication, anyone can connect anyone. As Twitter penetration has been proliferating worldwide, news organization accounts begin to take place in order to reach massive audience. However, as seen from preliminary study, even though Twitter afford open communication, news organization still have less horizontal communication to its audience, which can be detected by the lack of mentions. News tweets provided by individual account on the contrary employed interactive communication. Previous studies that compared news reported by individual and mainstream media oftentimes declared a failure to individual side, however as we've seen on the results, the difference between news organization and individual account was not significant. This might be due to empowerment within citizen journalism. Empowerment that is generated through identity reshape in an active participation. Therefore, we suggested news organization to take advantage of horizontal communication, because as implied on our finding, indeed power is not a static entity, it is permanently shifting.

### **6.4. Conclusion**

As information and communication technology advances, affordance that used to be exclusively belong to one group now is equally distributed. With a cell phone, people are able to execute actions such as recording and capturing image, which in the past might require more than one device. The advance in internet also enable anyone to do anything, old conventions thus are being challenged. One of old convention is people convention in acquiring news. With social network platforms, especially Twitter, people are able to acquire news on their mobile devices, what is more people are able to also report

happenings on their surroundings instantly. What we were interested to know was the impact of different news sources on audiences, news organization account and individual account. News tweets by individual account represent the so-called citizen journalism.

Historical accounts on citizen journalism have been suggesting that the goal of the practice is to provide an alternative media, however we are more convinced by Rodriguez's theory that instead of providing alternative media, the goal and the motivation to engage in citizen journalism is to enact citizenship. We aimed to scaffold Rodriguez's proposal with this study, and indeed our finding supported the theory. People are looking at the two news sources without a definite preference, and people reported their motivation to engage is more to involve in community. The findings of this study contribute to citizen journalism research and show that there is a shift in the practice, and this should not be denied in the future.

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## Appendix I Screenshots of news tweets



Figure 1. News tweets from news organization



Figure 2. News tweets from individual account

**Appendix II Coding scheme**

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Source</b>	News organization	Individual		
<b>Profile picture</b>	Icon	Index	Symbol	Other
<b>Profile name</b>	Real name	Pseudonym	Organization name	Nick name
<b>Username</b>	Include real name	Pseudonym	Include organization name	
<b>Length-character</b>	Number of characters			
<b>Length- word</b>	Number of words			
<b>Full web link</b>	Yes	No		
<b>Short web link</b>	Yes	No		
<b>Compiled web link</b>	Yes	No		
<b>Picture</b>	Yes	No		
<b>Hashtag</b>	Yes	No		
<b>Mention</b>	Yes	No		
<b>Content</b>	Title of news	Opinion	Witness account	

**Appendix III Online questionnaire**

## Survey Condition 1

Dear Participant,

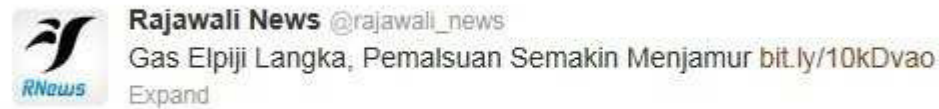
Welcome to this survey. My name is Raidah I. Yusuf. I am currently studying Master of Communication and Information Sciences at Faculty of Humanities, Tilburg University, The Netherlands. This survey is a requirement for my master thesis. The main goal is to discover about Indonesians behavior (tweet, re-tweet, follow) on Twitter. The respond that you give will remain anonymous and will be used only for the study purposes. It will take you around 15 minutes. You can change the language on the upper right option. Thank you for your cooperation.

Note: Adjust language on upper right menu

Catatan: Sesuaikan bahasadimenukananatas

RaidahI.Yusuf (r.i.yusuf@tilburguniversity.edu)

1. Rajawali News is an on-line news organization in Indonesia.



2. Liputan Global is a news show in one specific television channel.



3. Channel 10 is a TV station specialized in news



Please rate the tweet above\*

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
Not trustworthy at all:Very trustworthy (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not informative at all:Very informative (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would not re-tweet this at all:I would certainly re-tweet this (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

\*these rating were asked after each news tweet.

## 4. Would you tweet if you are in situations below?

	Very Unlikely (1)	Unlikely (2)	Undecided (3)	Likely (4)	Very Likely (5)
You are watching a sport match (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
You are in the middle of a traffic jam (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
You are witnessing an accident (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
You are watching a live performance (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
You are witnessing a natural disaster (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

Answer If Would you tweet if - Likely Is Greater Than or Equal to 3 Or Would you tweet if - Very Likely Is Greater Than or Equal to 3

5. Why would you tweet about happening on your surrounding?

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
Because people need to be aware of the situation (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Because I need to support other in providing the information (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Because news organization report it different from reality (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Because there are less cover by news organization (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Are you familiar with term "trending topics" on Twitter?

- ☐ Yes (1)  
☐ No (2)

If No Is Selected, Then Skip To You tweet about

7. How often do you check trending topics on Twitter?

- ☐ Never (1)
- ☐ Rarely (2)
- ☐ Sometimes (3)
- ☐ Most of the Time (4)
- ☐ Always (5)

8. How often do you participate on trending topics?

- ☐ Never (1)
- ☐ Rarely (2)
- ☐ Sometimes (3)
- ☐ Most of the Time (4)
- ☐ Always (5)

9. Do you think trending topics are indicators of recent happening?

- ☐ Strongly Disagree (1)
- ☐ Disagree (2)
- ☐ Neither Agree nor Disagree (3)
- ☐ Agree (4)
- ☐ Strongly Agree (5)

10. Do you think trending topics reflect public opinion

- ☐ Strongly Disagree (1)
- ☐ Disagree (2)
- ☐ Neither Agree nor Disagree (3)
- ☐ Agree (4)
- ☐ Strongly Agree (5)

11. Do you think trending topics are faster way to know about news?

- ☐ Strongly Disagree (1)
- ☐ Disagree (2)
- ☐ Neither Agree nor Disagree (3)
- ☐ Agree (4)
- ☐ Strongly Agree (5)

## 12. You tweet about

	Not at all like me (1)	Not much like me (2)	Somewhat like me (3)	Quite a lot like me (4)	Just like me (5)
Feelings (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Activities (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Political views (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Beliefs (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Informational tweets (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trending topics (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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13. How many people do you follow?

14. Who do you follow?

	Yes (1)	No (2)
My offline friends (1)	<input type="radio"/>	<input type="radio"/>
My on-line friends (2)	<input type="radio"/>	<input type="radio"/>
Experts (3)	<input type="radio"/>	<input type="radio"/>
Professionals (4)	<input type="radio"/>	<input type="radio"/>
News station accounts (5)	<input type="radio"/>	<input type="radio"/>
Celebrities (6)	<input type="radio"/>	<input type="radio"/>
Organizations (7)	<input type="radio"/>	<input type="radio"/>
Other (8)	<input type="radio"/>	<input type="radio"/>

15. How many followers do you have?

## 16. Why do you use Twitter?

	Not apply to me at all (1)	Not apply to me (2)	Neutral (3)	Apply to me (4)	Very much apply to me (5)
I use Twitter for fun (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use Twitter to pastime (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use Twitter to express my thoughts (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use Twitter to tell others about my activities (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use Twitter to keep myself informed (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use Twitter to find out about news (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use Twitter to communicate with others (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use Twitter to connect with others (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

## 17. How many hours of spare time do you have a day?

- ☐ (1)
- ☐ 1-4 hours (2)
- ☐ 5-8 hours (3)
- ☐ 9-12 hours (4)
- ☐ > 12 hours (5)

18. How long have you been registered on Twitter

- ☐ (1)
- ☐ 1-4 months (2)
- ☐ 5-8 months (3)
- ☐ 9-12 months (4)
- ☐ > 1 year (5)

19. How many hours a day do you spend on Twitter?

- ☐ (1)
- ☐ 1-4 hours (2)
- ☐ 5-8 hours (3)
- ☐ 9-12 hours (4)
- ☐ >12 hours (5)

20. How do you access twitter usually?

	Never (1)	Rarely (2)	Sometimes (3)	Most of the Time (4)	Always (5)
From a computer (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
From a laptop (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
From a cellphone (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
From tab (Samsung, iPad, etc.) (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 21. Where do you get news from?

	Never (1)	Rarely (2)	Sometimes (3)	Most of the Time (4)	Always (5)
Newspaper (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Television (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Website (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facebook (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Twitter (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 22. How trustworthy do you think the news sources below?

	Not trustworthy at all (1)	Not trustworthy (2)	Undecided (3)	Trustworthy (4)	Very trustworthy (5)
Newspaper (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Television (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Website (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facebook (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Twitter (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. What is your gender?

- ☐ Male (1)
- ☐ Female (2)

24. How old are you?

25. What is the highest level of education you have completed?

- ☐ Less than High School (1)
- ☐ High School (2)
- ☐ Diploma (3)
- ☐ Bachelor/Undergraduate (4)
- ☐ Master's Degree (5)
- ☐ Doctoral Degree (6)
- ☐ Specialist (dr., etc.) (7)

## Surveycondition 2

1. Melanie B is a pseudonym account on Twitter



**Melanie B** @langkah\_1000

Elpiji 3kg langka karena ada permainan mulai dari distributor sampai ke agen2 pengecer kecil

Expand

2. RachmanNasution F is an ordinary Indonesian citizen



**Rachman Nasution F** @rachmanof

Pagi ini Merpati tergelincir di El Tari, alhamdulillah tak ada korban jiwa

Expand

26. Yusuf Kalil is an ordinary Indonesian citizen



**yusuf kalil** @uchupian

KJRI rusuh, massa TKI melakukan aksi pelemparan dan pembakaran cc: @SBYudhoyono

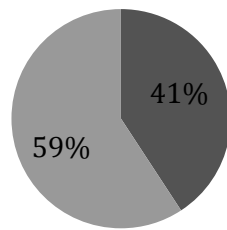
Expand

Please rate the tweet above\*

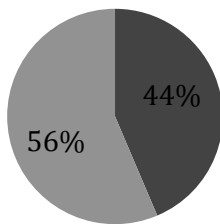
	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
Not trustworthy at all:Very trustworthy (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not informative at all:Very informative (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would not re-tweet this at all:I would certainly re-tweet this (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

\*these rating were asked after each news tweet.

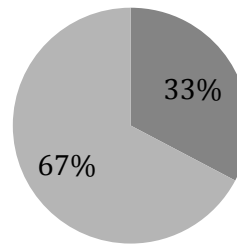
The remaining questions is similar to survey condition 1.

**Appendix IV Participant characteristic****Number of participants (N= 191)**

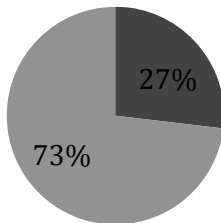
- News organization condition (N=78)
- Individual condition (N=113)

**News organization condition Gender**

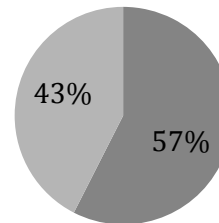
- Male (N=34)
- Female (N=44)

**Individual condition Gender**

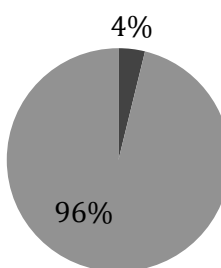
- Male (N=37)
- Female (N=76)

**News organization condition education (recoded)**

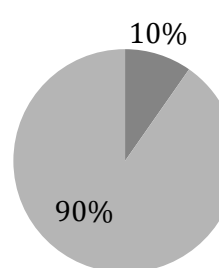
- Lower education (N= 21)
- Higher education (N= 57)

**Individual condition education (recoded)**

- Lower education (N= 65)
- Higher education (N= 48)

**News organization condition age (recoded)**

- Teenager (N= 3)
- Adult (N= 75)

**Individual condition age (recoded)**

- Teenager (N= 11)
- Adult (N= 102)

**Appendix V Dependent and control variable analysis**

Table 1

Dependent measure Pearson correlation

	Trust	Information	Re-tweet intention
Trust	-	.754*	.466*
Information	.754*	-	.422*
Re-tweet intention	.466*	.422*	-

\* $p < .001$ 

Table 2

Independent t-test for research question 1 (grouping gender)

	Male			Female			
	N	M	SD	N	M	SD	
Trust	71	2.97	.76	120	3.12	.68	$t(189) = -1.41, p = .161$
Information	71	3.17	.75	120	3.30	.72	$t(189) = -1.21, p = .225$
Re-tweet intention	71	2.04	.93	120	1.98	.85	$t(189) = .404, p = .687$

Table 3

Independent t-test for research question 1 (grouping education)

	Lower education			Higher education			
	N	M	SD	N	M	SD	
Trust	86	3.08	.76	105	3.05	.67	$t(189) = .330, p = .741$
Information	86	3.32	.76	105	3.20	.71	$t(189) = 1.07, p = .115$
Re-tweet intention	86	2.04	.89	105	1.98	.87	$t(189) = .481, p = .061$

Table 4

Independent t-test for research question 1 (grouping age)

	Teenager			Adult			
	N	M	SD	N	M	SD	
Trust	14	3.30	.87	177	3.04	.70	$t(189) = -1.32, p = .187$
Information	14	3.47	.82	177	3.24	.73	$t(189) = -1.14, p = .253$
Re-tweet intention	14	2.64	.97	177	1.95	.86	$t(189) = 2.85, p = .005, r = .04$

**Appendix VI Hypothesis testing***Hypothesis 1**Table 5**Independent t-test for research question 1 (grouping source of news)*

	News organization			Individual			
	N	M	SD	N	M	SD	
Trust	78	3.12	.77	113	3.02	.67	$t(189) = .924, p = .357$
Information	78	3.23	.80	113	3.27	.69	$t(189) = -4.27, p = .670$
Re-tweet intention	78	2.05	.98	113	1.97	.80	$t(189) = 5.88, p = .557$

*Hypothesis 3**Table 6**Dependent t-test for research question 3*

Community involvement			Alternative media			
N	M	SD	N	M	SD	
84	4.01	.58	84	3.52	.70	$t(83) = 5.62, p < .001, d = .62$