Journalists’ information needs, seeking behavior, and its determinants on social media

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Abstract
We describe the results of a qualitative study on journalists’ information seeking behavior on social media. Based on interviews with eleven journalists along with a study of a set of university level journalism modules, we determined the categories of information need types that lead journalists to social media. We also determined the ways that social media is exploited as a tool to satisfy information needs and to define influential factors, which impacted on journalists’ information seeking behavior. We find that not only is social media used as an information source, but it can also be a supplier of stories found serendipitously. We find seven information need types that expand the types found in previous work. We also find five categories of influential factors that affect the way journalists seek information.

Introduction
The impact of social media on journalism has been widely studied ((Brautović et al., 2013; Hermida, 2012; Herrera-Damas and Hermida, 2014; Lasorsa et al., 2012; Murthy, 2011; Oh et al., 2010; Opgenhaffen and Scheerlinck, 2014; Parmelee, 2013). Social media is not only used as an information source, but also for various professional journalistic objectives, such as real-time reporting (Hermida et al., 2014; Papacharissi and de Fatima Oliveira, 2012), networking, branding, and collaboration (Hedman and Djerf-Pierre, 2013). Social media also helps the public be part of the journalism and news process (Brautović et al., 2013; Bruns and Highfield, 2012; Newman, 2009), which has made it an integral and growing part of journalistic work (Djerf-Pierre et al., 2016; Opgenhaffen and Scheerlinck, 2014).

An examination of past research reveals that while studies of journalist’s use of social media have been conducted, and it was reported that journalists use social media as an information source to satisfy their information needs, ones that consider journalists’ information seeking behavior on social media are less prevalent. The objective of this paper, therefore, is to explore journalists’ information seeking behavior on social media with a particular focus on journalists’ information need types, their respective information seeking, and the factors that influence them. The work addresses the following research questions:

- What type of journalists’ information needs can be satisfied on social media?
- How do journalists exploit social media as a versatile tool to satisfy their information needs?
- What factors do influence on journalists’ social media uses and their information seeking behavior on social media?

The paper starts with a literature review, followed by a description of the methodology. The results of the study are detailed and discussed before the paper concludes.

Literature review
As satisfying information needs occurs in the context of using social media, we first describe past work on journalists’ use of social media followed by journalists’ information seeking behavior.

Social media uses
We sub-divided use of social media research into verification, communication/promotion, and satisfying information needs.

Verification is the essence of journalism (Kovach and Rosenstiel, 2007). Use of social media has changed journalistic verification conventions (Canter, 2015). Studies of verification strategies on social media are wide ranging (Brandtzæg et al., 2016; Carrera Álvarez et al., 2012; Hermida, 2012; Shapiro et al., 2013; Wiegand and Middleton, 2016). Shapiro suggests that verification and information-gathering are interwoven (Shapiro et al.,...
Guidelines on verification have been created (Silverman, 2014), verification teams formed (Turner, 2012), and automated verification tools built (Diakopoulos et al., 2012; Schifferes et al., 2014). For example, SocialSense use different metrics (e.g. number and frequency of tweets and re-tweets, ratio of followers to followings, etc.) to give an initial credibility score to social media contributors (Thurman et al., 2016).

Communication is inherent to journalism (Brautović et al., 2013; Carrera Álvarez et al., 2012; Hasanain et al., 2016; Hedman and Djerf-Pierre, 2013; Tandoc Jr. and Vos, 2015). Past studies show that social media is used for many such purposes: professional accountability and transparency (Lasorsa et al., 2012), to enhance inclusion (Nel and Westlund, 2013), to curate information (Bruns and Burgess, 2012), or to make content more visible (Meraz and Papacharissi, 2013). Studies of promotion find journalists using social media to drive traffic to their articles (Messner et al., 2011), to self-promote themselves (Brautović et al., 2013) or their employer (Hedman and Djerf-Pierre, 2013). Note, Weaver and Willnat consider promotion as an effect of using social media on journalists (Weaver and Willnat, 2016).

Almost all studies on journalists’ use of social media indicate its value in satisfying information needs through asking questions, searching queries, using social media as an RSS, etc. (Brautović et al., 2013; Cozma and Chen, 2013; Hasanain et al., 2016; Hedman and Djerf-Pierre, 2013; Hermida et al., 2014; Herrera-Damas and Hermida, 2014; Lariscy et al., 2009; Lasorsa et al., 2012; Newman, 2009; Tandoc Jr. and Vos, 2015; Weaver and Willnat, 2016).

As shown in this section, many individual aspects of journalistic work and social media have been examined and can be subsumed under three categories of verification, communication/promotion, and satisfying information needs. Moreover, almost all studies on journalists’ use of social media indicate its value in satisfying information needs, however, they do not report on journalists’ information seeking behavior on social media. Next section discusses the past literature on journalists’ information seeking behavior and shows that when it comes to the context of social media, there is a gap in the past literature.

**Information seeking behavior (ISB)**

Interaction with information systems occurs when individuals feel a need for information. They address their need by engaging in information seeking behavior (Belkin, 2010). Taylor described that a user’s actual information need is different from the query they pose (Taylor, 1968). Consequently, an information system must take the query and serve results that satisfy the user’s actual need. Therefore, information seeking behavior (ISB) studies focus on users’ information needs, seeking, behaviors, and experiences to have better understanding of user’s actual information need and its subsequent information seeking behavior. Case (Case, 2012) defines “information seeking” as “a conscious effort to acquire information in response to a need or gap in your knowledge.” In the case of journalists, their information needs and seeking behavior along with the context of their information needs must be understood.

Campbell (Fiona Campbell, 1997) considers news as something that is actively constructed within the constraints of time, space, intended audience, and the news organization. She argues that journalists’ information seeking is not sophisticated due to the nature of the news process. Campbell points out that the intended readership influences the angle of a story and consequently the ways journalists look for information. Nicholas and Martin (Nicholas and Martin, 1997) showed that journalists need large volumes of information that is authoritative, current, and quickly delivered.

Fabritius (Fabritius, 1999a) using observation, interviews, and diary studies found that information seeking should be considered in a broader context and investigated by means of a hierarchical framework: journalistic culture, culture of the medium, culture of the topic, work practices, news item processing, information seeking, and information retrieval. Fabritius’s view of how journalists seek information is different from Nicholas and Martin who consider information needs as a part of the journalistic work culture.

Attfield and Dowell (Simon Attfield and John Dowell, 2003) indicate that journalistic research starts with the assignment of work and consists of three stages: initiation, preparation, and production. Initiation establishes an angle, deadline, and required word-count. During preparation, originality checking, developing a personal understanding, and discovering potential content all lead to information seeking. Attfield and Dowell highlighted the role of uncertainty in what a journalist wants and what they are going to produce.
Williams and Nicholas (Williams and Nicholas, 1997) showed that the advent of the internet changed the information environment for journalists. They examined the change in journalists’ information seeking behavior (David Nicholas et al., 2000; Nicholas and Williams, 1999), finding that job role, gender, ease of access, age experience, education, and training are all factors that influence internet use.

Anwar et al determined that journalists mainly seek online for fact checking, for general and for background information (Anwar et al., 2004). Ansari and Zuberi (Ansari & Zuberi, 2012) indicate that due to time constraints, journalists seek selective rather than exhaustive information. Singh and Sharma (Singh and Sharma, 2013) found journalists’ information needs cannot be satisfied with one type of information source. The purpose of use of information affects information source selection.

Hasanain et al’s study examined the type of questions asked by journalists on social media (Hasanain et al., 2016) . Their study classified the questions asked by journalists on social media into eight categories which only three of them are considered as type of questions that satisfy journalists’ information needs; they are namely are 1) find fact 2) find opinion 3) find information source.

While this review (social media uses & ISB) shows extensive research has been conducted to study journalism and social media, studies that take an information seeking perspective on social media are less common and studies that use a qualitative approach are rarer still. Therefore, we conduct a study to fill this apparent gap in the past literature.

Methodology

Much information seeking behavior ISB research has taken a qualitative approach (Simon Attfield and John Dowell, 2003); (Shahram Sedghi et al., 2012); (Duncan and Holtslander, 2012)). We use a constructivist form of grounded theory (Charmaz, 2014; Corbin and Strauss, 2014; Glaser and Strauss, 1999), which “assumes a relativist ontology (there are multiple realities), a subjectivist epistemology (knower and subject create understandings), and a naturalistic (in the natural world) set of methodological procedures.” (Denzin and Lincoln, 2005).

Data Collection

This study undertook an inductive exploration through nine semi-structured face-to-face interviews and two email interviews with journalists based in Australia: five males, six females, aged 20-53. Participants were recruited via their work place or through contact obtained from public websites of potential participants. We ensured all participants had a journalism degree and they had produced news for media organizations (including freelancers). An information sheet was shown and a consent form signed prior to conducting the interview.

On average, the length of each interview was 1.5 hours based on an interview guide. The interview guide was prepared from a literature review of information seeking behavior research (Case, 2012) to cover major topics related to the study’s objective and refined over several pilot interviews to be adapted to the purpose of this research. We used different techniques including the techniques suggested by Berg (Berg, 2000) and Bryman (Bryman, 2012) in developing the interview guide.

We used interview as it is reported to be the main tool for gathering data in grounded theory methodology (Charmaz, 2014) and it is a common data collection method among ISB researchers. However, we used the semi-structured one because we wanted to have a framework of themes to be explored, as well as, substantial freedom to adjust the questions to participants’ responses and investigate far beyond a respondents’ answers to the predetermined questions. All face-to-face interviews were conducted in either the journalists’ workplace or a coffee shop. The following (Table 1) details the participants (the last two rows are the participants who were interviewed through email):

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Research has also examined other users through surveys and examination of tweets posted to understand how information needs can be satisfied on social media (Hasanain et al., 2016; Morris et al., 2010; Teevan et al., 2013).

Ethics approval number: BSEHAPP04-15.
Table 1. Participants’ details

| Age   | Current Occupation          | Prior Experience       | Sex  |
|-------|-----------------------------|------------------------|------|
| 41-50 | Freelancer, Academic Journalist | Reporter, Editor       | Male |
| 20-30 | Freelancer, Reporter        | Reporter               | Female |
| 41-50 | Academic Journalist         | Radio Journalist       | Female |
| 20-30 | Student                     | Internship             | Female |
| 41-50 | Reporter                    | Reporter               | Female |
| 41-50 | Freelancer                  | Editor                 | Male  |
| 21-30 | Reporter                    | Reporter               | Male  |
| 31-40 | TV Journalist               | Freelancer, Reporter   | Male  |
| 51-60 | Freelancer                  | Reporter, Editor       | Female |
| 41-50 | Freelancer                  | Reporter               | Male  |
| -     | TV Journalist               | Radio Journalists      | Female |

Typically, the interview session began with the researcher prompting the participants to explain the reason they use social media, what type of social media platform they use, and then steering the discussion towards their information seeking behavior on social media. Recordings were transcribed for further analysis.

In addition to the interviews, observations of students attending journalism modules\(^3\) were made (Semester 1 and 2, 2015) to better understanding information seeking behaviors. In one module, students were taught, hands on, to use social media platforms in their journalistic tasks.

**Data analysis**

Using grounded theory methodology (Charmaz, 2014; Corbin and Strauss, 2014; Glaser and Strauss, 1999), we used Nvivo software to facilitate the coding process. The interview transcripts were coded, the codes were formed into concepts and grouped into categories, which are reported in this paper. However, it should be mentioned that we did not have professional transcriber in the beginning of the research. Therefore, the researcher of this study had to transcribe the first few interviews himself and due to his lack of skills in transcribing, it was very time consuming. Consequently, in the beginning of the research, we decided to listen to the recorded interview for several times and then write an analytic memo about them and coding them until the interview was transcribed completely to be coded. Grounded theory is cyclic in nature and does not have distinct phases of data collection, analysis, and theory construction. In grounded theory, theoretical sampling concept guides the process of data collection and consequently helps the researcher to decide what data to collect next to explicate the categories emerged. The data collection process should be continued until theoretical saturation is reached. We reached saturation after nine intensive face-to-face interview. However, we continued the data collection process through two email interviews to ensure the saturation occurred.

Using constructive grounded theory (Charmaz, 2014), we employed at least two coding phase during data analysis; 1) Initial coding phase: breaking down data into discrete parts and scrutinizing data fragments for their analytic import and making sense of data collected. 2) Focused coding phase: sifting, sorting, synthesizing, analyzing, and conceptualizing large amount of data to develop the most salient categories; this phase enabled us to categorize our collected data incisively and completely.

We started the initial coding phase as soon as the first piece of data was available. Also we used memo-writing from the beginning of the research as it helped us to reflect our analytic thought and views on the data collected through interviews, and observation, and research process. We scrutinized fragments of data collected through line by line, segment by segment, incident by incident coding, and comparative methods; we interacted with the our data and ask many different questions of them. It helped us to establish analytic distinction by comparing data with data to find similarities and differences. We created codes by scrutinizing our data and defining what we see in the data. Through initial coding phase, we began to generate the bones of our analysis and made sense of our data, however, we remained open to all theoretical directions. Therefore, initial codes that we constructed were provisional, comparative, and grounded in the data. We progressively followed up on codes to check

\(^3\)“Understanding Journalism” and “Journalism Technologies”, part of a Bachelor of communication (Journalism) at RMIT University.
whether they fit the data or we needed more data to explore and fill out theses codes or even reworded them to improve their fit with data.

Initial coding phase enabled us to see possible directions to take our analysis, while, focused coding gave us indications which one to take. Although moving from initial codes to focused codes is cohesive (it is not a linear process), we used focused coding to identify and develop significant codes and test them with a large set of data. Theoretical integration started with focused coding and continued throughout our subsequent analytic process. Through studying, analyzing, and comparing our initial codes we selected significant codes or invent a code that include several initial codes. We decided which codes make the most analytic sense to categorize our collected data incisively and completely. These codes emerged from frequency of our initial code or their significance over other codes. We used these codes to sort, examine, integrate, analyze, and conceptualize large amount of data. Focused coding phase, engaged us further into the comparative process. We compared codes with codes, and analyzed them to identify the ones that may be promising tentative categories. We recognized the connections between categories and related categories to subcategories through their dimensions and properties. Focused coding phase led us to our conceptual and theoretical categories.

In constructivist version of grounded theory, Charmaz offer a list of criteria for evaluating the findings (Charmaz, 2014). She subsumed this list of criteria into four categories: 1) credibility, 2) originality, 3) resonance, and 4) usefulness. However, her suggestions for evaluation of the findings require self-evaluation during the research process. Thus, to distance ourselves from the project, in addition to Charmaz’s self-evaluation criteria, we employed Creswell’s suggestions (Creswell, 2013) for validity and reliability of our findings; particularly we used “peer debriefing”, “member checking”, and “prolonged time” strategies. They were conducted by several journalists and a group of multidisciplinary researchers who met fortnightly to discuss research progress.

It also should be mentioned that although the description of the data analysis procedures appears to be a linear process in writing, the actual research process was not a linear process.

The following table (Table 2) demonstrates how the focused code for the category of “People” is constructed from the data collected to encompass numerous initial codes. This table is only a simple sample of how to move from data to the focused code and it does not include all initial codes and does not show the real research process carried out.

| Data collected | Initial codes | Focused code |
|----------------|---------------|--------------|
| “I found it useful for crowdsourcing” | Crowdsourcing | |
| “To Find (human) sources for stories.” | Find sources | |
| “it can be very useful to find maybe an activist group or maybe a group who are working on a certain topic or protesting a certain issue or whatever” | Finding specific group of people | People |
| “It can be very useful to find good contacts” | Finding contacts | |
| “You can get much more sense of a person is like. Often very private people suddenly have a tweet that just talk about stuff as if they talk to a friend and that is really fascinating to look at and give you insights about the person’s charac- | Finding Other aspects of a person’s personalities |

Table 2. From data (transcripts) to a focused code
“looking for a particular person with expertise on particular field” | Finding experts

“I needed to find more information about a shooting victim” | Finding personal background information

Results
We examine the topic of satisfying information needs by studying the types of information journalists search for, how they exploit social media as a versatile tool to satisfy their information needs, and what influences them while seeking information (influential factors).

Although there are many different social media platforms, our study showed that Twitter and Facebook were the most used by journalists due to their popularity and user engagement; “…They’ll (people) get into Periscope and Kneecap, whatever, the live video streaming, and Instagram, and whatever the thing is of the day. I really don’t bother so much with the new fancy, you know, whatever the popular thing of the day is. Twitter and Face- book is the main one because it’s got the established user base and I find it useful.” Hence, all examples used to explain the findings are related to Twitter or Facebook platforms unless indicated otherwise.

Journalists’ Information Need Types
We identified the following information types. They are categorized into seven groups.

1. Real Time
Almost all journalists mentioned the importance of social media when it came to finding real time information: “Social media is a little bit like a social seismograph. It’ll tell you in real time what is happening.” In response to the question “Is there any information that you can only find through social media?” one responded, “Yeah, what’s happening right now, what’s happening in the last 60 seconds? You’re not going to find that on Google.” She continued, “Twitter was the thing that gave me the answer at 1 o’clock in the morning, because so much is plugged into it. So, yeah, that’s where I would search for keywords or information about, what people are saying about it right now.”

2. Opinion
Journalists seek opinions by searching or posting on social media: “The old days was like the Vox Pop, you go outside the station and you talk to ten people and get their opinion. Now, via the hashtag, you can search people’s comments, and a grab of their Twitter is on the story.” Moreover, journalists were able to find opinions beyond their inside information and followers: “You can put it out there, people re-tweet it and it goes out and maybe something will come back to you.” Public conversations not only equipped journalists with people’s opinions but also helped journalists ‘connect the dots’ and comprehend people’s interaction with and influence over each other.

The analysis showed that seeking opinions occurred at other stages of the news process; “We have already written an article on a particular topic and we want to either support or challenge that idea with opinions and things that people are already talking about on social media at the moment and we can insert that into the story.”

3. Factual
Social media was also viewed as a source of facts, though as one interviewee stated: “You have to decipher what might be fact from opinion or fiction. That can become very difficult.”. In the context of investigative journalism, an interviewee explained: “There’s an [DELETED TO PROTECT IDENTITY] Investigation Twitter account that we would use to say: ‘Hey, do you have information on a certain government agency that we might be looking at?’ Something like that. It might be something that we’re trying to solicit whistle-blowers with, potentially, or sources, so you can actively encourage people via social media to potentially tell you something anonymously or contribute to a story that isn’t already on the air.”

Another example of seeking facts was: “when I’ve written stories, people will read my story and tweet me other details I may not know about. So they will follow up with other information that might lead to another story, or
it just may lead to more understanding and more knowledge of the topic. It’s quite interesting that people you don’t know existed can come to you with information.”

Interviewees tended to target people directly: “If I tweet something, I can’t guarantee that every person that can answer my question is reading my tweet, I can’t guarantee that. But with Twitter, there’s ways of writing tweets, whereas if you want to write a direct tweet to a person, you write their ‘@’ name first so they will see it, they’ll get an alert. I can send a direct message.”

However, there are journalists who were reluctant to use social media alone for finding facts: “… Facts are facts, they’re right or they’re wrong. Something happened or it didn’t happen. So just because it’s on Facebook or Twitter doesn’t mean you can just take information off it…I do not take any fact that I find on social media…So, I am sure there could be challenge if you find something quite inflammatory and then maybe you cannot verify it through any other sources. That is quite challenging part of using social media.”

4. Events

Event driven information was a broad ranging type including protests, riots, elections, natural disasters, etc. To learn about an event, interviewees said they sought information from the social media accounts of authorities or prominent individuals involved in an event. Interviewees stated that some news organizations have a team of people just to monitor particular social media accounts: “Depending on the source, it can be extremely valuable… So your resources at your disposal, whether it’s human resources or where it’s funding for a certain story or assignment or travel budgets or whatever might push you to use social media more or less.”

Interviewees said they use social media to find happenings in three different ways: proactive: seeing a story on social media and then deciding to follow it; reactive: using social media to find information about a story that is already happened; or a mixture of both approaches. Story type influenced the chosen approach: e.g. reactive was commoner for crime related events, proactive for political events.

5. People

When discussing people and social media an interviewee stated: “To me it’s a database, they’re not friends, and I don’t even know a lot of them. They’re people that I find may benefit and I may benefit, so it’s a database of people.” One interviewee indicated he uses social media to learn more about people: “You can get much more sense of a person is like. I think people including myself tend to post so many different state of mind that some of the truth of the person, personality leak out into the public… very private people suddenly have a tweet that just talk about stuff as if they talk to a friend and that is really fascinating to look at and give you insights about the person’s character.”

The analysis of interview transcripts suggested that social media is one of the main information sources for seeking people or information about people.

Journalists employed different search tactics: “Sometimes it can be as specific as you putting in a name and looking for the person that matches that name, so like, for example, there can be hundreds of Tom Smiths on there, so you’re going to find the Tom Smith that relates to that shooting in Brunswick.” The tactics used varied: “How targeted can vary depending on how much information you’ve got before you go to social media.” If journalists knew little of the person they sought, building a lattice of information was one approach: “when I’m searching on Facebook, if I know something has happened either at a certain place, like a suburb, or at a certain location, like a school, a good way to sort of start, I guess, is seeing people that have checked in at that place or liked that place. So basically, you just would punch in, say, Richmond, into Facebook, and then a lot of the time it’ll say: “3,000 people have checked into Richmond,” and so I’ll go onto that and then open new tabs of those people, and I’ll sort of see if they actually live in Richmond and you basically just keep building, building, building this sort of web, and, eventually, you’ll get someone who you’ll be fairly certain either knows the victim or was around at the time the crime was committed and then you’ll either contact them on Facebook or find another way of contacting them, but you’re basically looking for stuff like who they’re mutual friends are.”

Interviewees sometimes solicited information from people: “We also would put out calls for people who might have information on a topic... You might be soliciting whistle-blowers, so you are looking for a different kind of thing, so you’d be engaging with the platform in a different way then. Instead of just searching, you’d be asking questions, you’d be trying to find people.”

A challenge with this information type was verification: “The one big thing is the problem with identifying who is talking to you, who is giving you the information.” A simple solution was to: “use Instagram, Twitter and Facebook to verify who people are and to see who is active in that area. So the usage of the three (Instagram, Twitter and Facebook), those particular three for me is quite fluid and unconscious.” Finding photos of a per-
son on social media was another approach: “because people often for some reasons have a picture that is themselves and recognizable and that is public”. Another way was checking the verified blue badge provided by some social media platforms. Interviewees reported that it would be helpful if there was a built-in feature in social media to check the identity of a person in different social media platforms.

6. User generated content
Interviewees reported wanting to seek content generated from the public: “photos or video of an event that’s happened that day”. One of the interviewees (a freelancer) indicated that she could not afford to have a cameraman for a story and resorted to such content: “you’ll try and source images via social media rather than getting them shot by the cameraman from that channel or the photographer for the newspaper or whatever.”. Another form of user generated content were discussions held on social media: “I do recall doing a story once about chefs who had quarrel and their fight was still visible on twitter. That was public. So that became a news story.”

7. Serendipity
The interviews revealed that journalists regularly used social media for leisure, entertainment, satisfying curiosity etc. Such activities influenced journalistic work directly. One interviewee indicated that story ideas come to him on social media serendipitously, another stated: “Journalistic work related and personal use of social media are closely interrelated”.

Social Media, a Versatile Tool to Satisfy Journalists’ Information Needs
We found three main ways journalists used social media to satisfy their information needs: an updating tool, a means of communication, and a tool to gauge people’s opinion.

News often breaks first on social media: “that can be the most effective way to get up-to-date information than looking elsewhere. Often social media is updated first, because it is faster, and people have more control over it.”. One interviewee went onto say; “You can kind of use Twitter, Facebook, and so on as a RSS tool to monitor feeds from websites…… so everything on my homepage is right there for me, I just scroll though, and I can see the latest updates whereas if I was on google I’d have to individually search…”. Searching hashtags to receive the latest updates on specific subjects was also described by our interviewees.

Social media equips journalists with a new communication channel to debate, converse, and engage with their readers; “compared to traditional media, 21 years ago, is that you have got two way conversation happening with audience instantly”. Engaging with the audience helped journalists not only generate or develop stories but also to forge relationships with experts: “With Twitter, it is very much a case of actually just getting in touch with the contacts, you want to have access directly into a network of people that have specific shared interests”.

Distance becomes less important; “It is very good for international contacts, when you work across timelines and date you can find and communicate with an expert in another time zone and really good expert and you would be amazed by his actually on social media”.

Journalists reported using social media to gauge group opinions on a topic, either by journalists asking questions publicly to receive people’s opinions on a topic or by searching hashtags to receive views on specific subjects.

Influential Factors
Influences on journalists’ social media use were also identified. They are categorized into five groups.

1. Personal
The age of journalists played a role in the frequency of using social media. Older interviewees stated, “I am sure you can find somebody who is 19 years old, he or she is twittering every 5 minutes. I am still in the process of transition between the old system and the new system.”; “Older journalists or more senior journalists are untrusting of social media or online content, as they should be in many ways, and that has been a barrier to getting the multimedia online journalism field going”.

In relation to their personal work situation, a freelancer stated, “I’m taking a different direction in my work anyway, so I’m less focused on promoting myself as a freelance journalist. So I use it less than I used to”. Another freelancer commented: “I do not have to worry about the publication that I write for or what I say in twitter.

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4 https://support.twitter.com/articles/119135
affecting them. I am self-employed”. The culture of society where a journalist lives and works is another factor that influences their use of social media: one participant indicated that in some segregated societies, journalists tend not to show images of their face on their account.

None of interviewed journalists had separate accounts for their work and personal purposes, these aspects of their lives were interlinked. Journalists become a brand on social media: “social media is about you. And we are increasingly becoming a brand. So if people know me or look things up, they know that I am a journalist, and academic, but also I am a mother/father, and a wife/husband, and also quite active in my local community”. But they were careful to create a particular identity on social media; “You cannot divorce your personal and professional anymore. But it does mean you need to be very careful in how you portray your personal life, so I have particular rules, for how student and I interact, because it is really important that you do not disrespect your partner, you do not disrespect your workplace on social media”.

2. Workplace

The ubiquitous pressure of deadlines was reported in the interviews: “in journalism you always work towards a deadline. So the way that it influences my use of social media is that I have to often produce search results quickly and maybe do not have as much time to filter through or find the best quality tweet or video.”. If anything, the pressure of deadlines has increased: “there’s constantly deadlines, so you need to be fast, but you need to be accurate”. Freelance journalists have similar deadline pressures: “It doesn’t constrain your job, because you don’t have an editor looking over your shoulder saying: ‘You spend too much time on this story. You’ve got to be doing something else.’ but when you’re a freelancer, you have to be that editor. You have to be that voice over your own shoulder saying: “Dude, it’s time to move on, because you’ve got ten stories to write this weekend. This is number three”.

As a separate workplace factor, some news organizations were reported to have policies that compel journalists to have social media accounts aligned with news organizations’ values and policies; “All the news agencies force you to use social media now. It is part of the job and if you do not use it, you are considered a dinosaur. So using it as a tool to create stories is much faster.”

3. Information need type

Different events (e.g. criminal, political, sporting, etc.) compel journalists to seek information in different ways: “If you were reporting on, say, state politics, you would follow a lot of MPs, and you might see a tweet like: “About to go into the party room”, and you think: “Oh, what’s that about?” There’s a bit of difference in I think crime is a bit of an island in the way that we use social media.”

The location where an event takes place can be an influential factor: “If a crime happened right now [here in Melbourne], you’d know it because it’d be on Twitter. But when you’re in [a small city around Melbourne], you wouldn’t know necessarily whether, for example, there had been a car crash down the main street, because people wouldn’t be putting it up online straight away, there wouldn’t be photos of it, so it was a lot of harder to get things confirmed.”.

4. Surveillance

Interviewees were concerned about surveillance: “I do not want to have my history left behind. I do not want to be seen that I have been trying to contact the Islamic State. So there are external factors that are related to national security accounts or reputations. It is an interesting stuff really, for example you are investigating a story and you want to go that site, but then you think if you want go to the site, I may be caught.”. Further comments included, “the last two years really that we know what’s really happening…It’s not a mystery anymore, particularly thanks to people like Edward Snowden and organizations like WikiLeaks…We have laws in this country now that the government’s going to capture metadata and that’s a big deal for journalists, because it can reveal all sorts of things about who you’re talking to on a sensitive story”. In addition, interviewees said, “You can never be 100% sure that your communications platform isn’t being monitored or decrypted, but I certainly tried to keep across which platforms we knew weren’t encrypted”.

Interviewees saw many potential impacts of surveillance: “there are external factors that belong to real world, free internet, privacy, reputation and also safety and security of journalists.”

5. Platform specific

Interviewees also commented the differences of social media platforms: “Because it’s [Twitter] only 140 characters, it’s not actually that time consuming to just run your eye down. You’ve only usually got to read the first
two or three words to bag an idea of whether it’s anything to do with what you’re interested in. Whereas going through Facebook posts would take a lot longer, because the thing might be buried somewhere in the middle.”

One interviewee explained he used Facebook and Twitter differently: “By the very nature, obviously Twitter only allows very short updates or sequences of very short updates, so in a fast paced breaking news situation, maybe for audience responses to a topic, you might, on a show, you might invite the audience to contribute a question or an opinion or something. So it’s really useful for that. Obviously, it only allows 140 characters, so you can’t really explain very much with it. And then Facebook, again, obviously you can provide much longer updates, you can put more content up, you can put video and photos up more easily, so it tends to allow for more depth, I suppose. It’s a bit more difficult to access because it’s not an open platform like Twitter is. If I have a Twitter account, unless I hide account, you can see it, and unless I hide my tweets, you can see them open on the Internet, whereas Facebook is a much more closed system, unless your settings are set to everyone, I have to be your friend to see what’s on your page.”

Another stated that user interaction is different on the two platforms: “people tend to be quite personal on Twitter when they’re talking to, they feel like they’re talking to the presenter of the show or the journalist who’s written a story. Whereas again, on Facebook, for example, the [DELETED TO PROTECT IDENTITY] has an [DELETED TO PROTECT IDENTITY] news page on Facebook, and we put up a lot of the stories that go to news online or pieces of videos from the TV channel, for example, on the Facebook page, and people respond in the comments, and sometimes, they respond at great length, almost like letters to the editor in the format”.

The number of followers/friends a journalist has impacts on which platform they use: “On Twitter that’s not really effective for me because I don’t have that many followers, but on Facebook I have asked questions here and there so what are people’s thoughts on this and that so if I wanted to gain perspective of other people’s opinions I would go to Facebook.”

Discussion

We discuss those results that contrast with related past work.

Our findings reveal that journalists’ use of social media for leisure, entertainment, and curiosity directly affected journalistic work. Previous studies (Anwar and Asghar, 2009; Anwar et al., 2004) indicate that journalists look for “ideas for future articles” consciously and purposely, or that journalists’ information seeking started with the assignment of work (Simon Attfield and John Dowell, 2003). Our findings show that identifying story ideas on social media is mainly a serendipitous process. While the importance of serendipity for article ideas has been shown before, (Nicholas and Martin, 1997), the role of social media in this process has not been identified before.

Past work (Brautović et al., 2013; Hedman and Djerf-Pierre, 2013; Hermida et al., 2014; Herrera-Damas and Hermida, 2014; Lariscy et al., 2009; Tandoc Jr. and Vos, 2015) indicated that journalists use social media to find information, but did not investigate comprehensively what type of information they seek. Hasanain et al (Hasanain et al., 2016) described a taxonomy of question types posted by journalists on Twitter, which indicated the questions asked were finding opinions, facts, and information sources. Our results show a more expansive list of types: real time, opinion, factual, events, people, user generated information, and serendipity. We ascribe the difference in the two lists to be due to the different methodologies used: Hasanain examined the tweets of journalists instead of conducting interviews with them.

While the use of social media, by journalists, to seek nuggets of information or to locate people is well documented (Hasanain et al., 2016; Herrera-Damas and Hermida, 2014), our findings show that journalists also use social media to satisfy their information needs for more sophisticated purposes. They use it to “connect the dots” and comprehend people’s interaction with and influence over each other. Our findings also show that journalists adjust their information seeking practices depending on the event they cover. For example, they might follow and monitor authorities, politicians, and celebrities on social media for their announcements but they have to employ different search strategies and tactics to find crime related events information. In addition, expectations of social media coverage vary depending on the population of the location in which an event takes place.

Past studies show journalists use social media to find sources including authorities, eyewitness, and experts (Diakopoulos et al., 2012; Hasanain et al., 2016). Our study expands these findings by showing that journalists are also interested in finding aspects of individuals’ characteristics and personalities. Our findings also show
that if journalists do not know whom they seek, they employ a mixture of search tactics and strategies to find their unknown targets.

On factors that influence information seeking, we employed the term “influential factors” to encompass the terms used in other information seeking and behaviour studies; “situational factors” (Byström and Järvelin, 1995; Dervin, 1992; Savolainen, 1995), “contextual factors” (Fabritius, 1999b; Freund, 2015), “intervening variables” (Wilson, 1999), “pragmatic factors or constraints” (Fiona Campbell, 1997; Simon Attfield and John Dowell, 2003), and etc.

Past studies showed that information seeking behavior is impacted by contextual factors (Byström and Järvelin, 1995; Dervin, 1992; Foster, 2004; Savolainen, 1995; Wilson, 1997, 2000). We found five types of influence: personal, workplace, event, surveillance, and platform specific. In journalism, work place factors such as deadlines and word-counts have been identified before (Simon Attfield and John Dowell, 2003). Our findings show, however, that deadlines are even more pressing than they were before. Our findings suggest that the influential factors can change over time. For example, surveillance has become more important in recent years. While this has been recorded by others (Lashmar, 2016), our work emphasizes the concern when information seeking on social media. For example, our interviewees may not use explicit queries when searching on social media. This is in harmony with past work which showed that due to confidentiality concerns, journalists “often provide vague and generalized descriptions of what they want.” (Nicholas and Martin, 1997). Considering platforms, past work showed journalists might display different behavior on different social media systems (Skogerbø & Krumsvik, 2015). Our findings show that different features and characteristics of each social media platform lead journalists to have different information behavior.

Conclusion

The study’s research questions were:

- What type of journalists’ information needs can be satisfied on social media?
- How do journalists exploit inherent features of social media to satisfy their information needs?
- What factors do influence on journalists’ social media uses and their information seeking behavior on social media?

Drawing from three main realms of research – information seeking and behavior studies, social media studies, and journalism studies – we interviewed eleven journalists and observed the courses of journalism students. Through a grounded theory methodology, our study answered the questions as follows.

Journalists were found to use social media extensively, though this was somewhat mitigated by their age. Journalists used social media both professionally and personally with little separation between these two sides of their use.

Journalists’ information needs covered a range of types: real time information, opinion, factual, event based information people, user generated content. In addition, social media was found to be a serendipitous source of story ideas.

Our findings indicated that journalists employ different search strategies including posting questions on social media to satisfy their information needs. Particularly, we looked at how the inherent features of social media are used as a tool to help journalists to satisfy their information needs.

A number of factors (which we grouped into five categories) influenced journalists’ information seeking behavior: personal, workplace, information need type, surveillance, and platform specific. The findings provided new insights into journalists’ information behavior and seeking on social media. Our findings also implied that the impact of influential factors differ depending on situation and context.

Our findings contribute to information behavior and information seeking research, as well as information retrieval studies, journalism and marketing studies. In the case of information retrieval, our findings can help designers customizing search systems to better locate information for journalists.

A limitation of our study is that all participants were located in Australia. Therefore, future studies should consider journalists from other places. Moreover, the focus of this paper in proposed social media uses (journalists’
information behavior on social media) was on satisfying information needs that lead journalists to social media. Thus, in future, we should consider scrutinizing other categories of proposed social media uses.

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