Data-Driven Sourcing:
How Journalists Use Digital Search Tools to Decide What's News

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ABSTRACT

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This dissertation examines the efforts of journalists to expand their pool of potential sources beyond a group of people often called "the usual suspects." This group consists of public officials, business leaders, experts, spokespeople, and other people who are in the news often. Using interviews, participant observation, a survey, and online ethnography, this research investigates how a growing skepticism of the usual suspects and increasingly powerful technology have led to innovations in the source search process.

Some journalists have seen potential in digital search tools, including databases and social media, for finding sources that had once been too difficult or time-consuming to find. Journalists themselves have created two source-finding initiatives: a database called the Public Insight Network, and Storyful, which calls itself the "world's first social news agency." Storyful journalists specialize in finding and verifying social media content from the scenes of breaking news events. Journalists have also used other tools created by public relations professionals and technologists.

How did the availability of these tools change the reporting process? It varied by tool, and by journalist. Although the tools were designed to do similar things, journalists used them in different ways. This dissertation examines how journalists used these tools in three stages of the reporting process: finding sources, verifying

sources, and managing sources. Ultimately, most journalists used these tools not to find new sources, but to follow and research sources they had already identified by name or location. Few journalists had discovered new sources and story ideas with the help of digital search tools. So while these tools opened new possibilities for finding sources, journalists were still more likely to cover some people and topics over others.

TABLE OF CONTENTS

LIST OF CHARTS, GRAPHS, ILLUSTRATIONS

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INTRODUCTION

"The philosophy of the work itself needs to be discussed; the news about the news needs to be told." (Lippmann, 1920, p. 18)

This dissertation is highly personal for me. I left my job as a journalist in hopes of addressing some of the things that frustrated me about being a journalist. One of those frustrations was the fact that journalists returned to the same small circle of sources over and over again, even when other people were available and had important things to say.

I did not always take journalism so seriously. Even my decision to become a journalist was a bit of a whim. I got my first reporting job after I graduated college with a Russian degree, and had no idea what to do with it. I answered an ad for a job at a local news/talk radio station because I thought it sounded like fun.

And it was fun. I got to talk on the air. My colleagues and I listened for breathless, excited voices on the police scanner that signaled that something newsworthy was happening. We would race out to events, then race back to report them before our chief competitor, the local television station, could. We would watch their evening news and cackle victoriously, knowing (even if few other people did) that we had scooped them by a whopping five minutes.

Over time, several sobering assignments made me see the job as less fun. I witnessed the execution of a convicted murderer. I shoved my microphone in front of people who had just lost their relatives in car wrecks. I mistakenly reported that a missing girl had been found alive, when in fact it was her lifeless body that had been found.

I loved many things about being a journalist, but it was also a heavy burden. I felt that I had become desensitized to other people's hardships, because they were the stuff of my daily routine. I tried to justify what I did by reasoning that I was providing a public service; I was doing good by keeping people informed. But I had no idea whether I was actually doing good. Did airing the tape of the crying widow inspire sympathy and activism? Or macabre voyeurism? Was it even my responsibility as a journalist to care, or was I supposed to inform the public and be done with it? I didn't know.

But I did know that we as journalists made choices about what information we provided to our audiences. We decided whether getting the interview with the crying widow was more important than covering the local zoning board. We also decided whether the crying widow story would last 20 seconds or two minutes. And we decided how often that story would run. When I started working as a journalist, I thought that there must have been some system that newsrooms used to figure out how to make those kinds of decisions. I had no idea how such a system would be designed—I just figured there had to be one. After a while, I realized that there was no system. Story assignments tended not to be decided according to some overall vision, but were rather based on which press releases we received, which events were happening, and which stories other news organizations were covering.

In my later years as a journalist, I also went to business school. It was another thing I did on a whim, not expecting it to lead to much. But, like my whimsical entry into journalism, it did. In business school, I became intrigued by concepts like strategic management: basically, the notion that the survival of businesses depended on their ability to understand their environment, including their customers, competitors, and other external forces. Businesses that understood their environments could find ways to stand out in them. Strategic management has usually been written in the language of customers and profits. But it is easily translatable to less profit-oriented goals, expressed using words like "public" and "impact." The central idea is the same, whether applied to businesses, non-profit organizations, or other groups, even professions: they must figure out what they can do better than anyone else, and then do it. The "doing it" part often includes more specifics, such as defining objectives, setting goals to meet those objectives, planning activities to meet those goals, evaluating the success of those activities, and using those evaluations to plan future activities, refine goals, and reset objectives.

Strategic management, I believed, could be useful to journalists. It could be the sort of guide that I assumed newsrooms already had when I became a journalist. Certainly, many people have already weighed in on what journalists did better than anyone else—or *should* do better than anyone else. Bill Kovach and Tom Rosenstiel, the authors of one of the best-known texts for journalism students, wrote that the "primary purpose of journalism is to provide citizens with the information they need to be free and self-governing" (2001, p. 12). Historian James Carey wrote that the "principal task and consequence of journalism is to form and sustain particular communities" (2007, p. 4). Sociologist Michael Schudson (2008b) wrote that journalism could assume the functions of information, investigation, analysis, social empathy, public forum, mobilization, and the promotion of liberal democracy.

What objectives should guide journalists in meeting these ideals? Kovach and Rosenstiel suggested 10 of them, including that "journalism's first obligation is to the truth," and that "its first loyalty is to citizens." Journalism ethics codes have also provided some guidance. The Society of Professional Journalists' code includes the basic tenets of "seek truth and report it," "minimize harm," "act independently," and "be accountable." To do this, the SPJ has offered a robust set of guiding statements, such as "tell the story of the diversity and magnitude of the human experience boldly, even when it is unpopular to do so," "Give voice to the voiceless; official and unofficial sources of information can be equally valid," and "Be vigilant and courageous about holding those with power accountable" (SPJ, 1996).

Herein lies the disconnect. For many journalists, these guiding statements are but lovely abstractions. They have little to do with the demands of daily journalism, which have emphasized quick, routine actions over careful ruminations about how to cover stories in ways that best seek truth while minimizing harm, independently and accountably. Many journalists only hope that they will someday have opportunities to do work that can "tell the story of the diversity and magnitude of the human experience boldly."

This is where strategic management could help, I thought. If journalists examined why so much of their work did not align with their missions, they could develop plans for improvement.

I figured that I must not have been the first journalist to think about these ideas, so I started doing some research. The first book I latched onto was Herbert Gans' classic ethnography *Deciding What's News*. As I read it, three things struck me. First, he was not a journalist, but a sociologist. So were numerous other scholars who had raised concerns about journalism and its role in public life. The second thing that struck me was that Gans knew what I had thought were secrets that only journalists knew. It was possible to be an outsider to journalism but still understand the constraints we faced and how those constraints affected our work. Finally, what struck me most of all when I read Gans' book was that the things that had troubled me about being a journalist had troubled other people for at least 30 years already.

Realizing that there were people who wrote the "news about the news," as media critic Walter Lippmann advocated, that many of those people were not working journalists, and that there was still lots of work to do, I decided that was my path. And so here I am.

A dissertation is an unlikely vehicle for institutional change. I have no delusions that my work will accomplish anything of that sort. But this research has, at the very least, been a vehicle that has allowed me to learn more about how journalism is practiced in organizations other than my own. It has allowed me to ask questions, test hunches, and help me think about what I can do next. It has been a privilege to undertake this project. I hope that, at some point, I will not be the only one to benefit from it.

CHAPTER 1: CONSIDERING SOURCES

Journalists strive to work as efficiently as possible. And yet, the reporting process can be remarkably inefficient. Sources miss voicemails, avoid emails, or are just too busy. But regardless of which sources are findable, which are credible, and which are willing, journalists must produce stories. Deadlines loom, as do competitors, who could scoop a journalist's purported exclusive at any moment.

The inefficiencies of the reporting process explain why journalists have tended to return to the same sources over and over again, especially those who have been prompt and amicable. Journalists can work more efficiently if they are familiar with their sources, know generally what it is that they know, know how to reach them, are confident in their ability to express themselves well, and are friendly with them.

But journalists also know that this is not ideal. Journalists who become too reliant on particular sources start to feel like their publicists. Familiar sources also become predictable, a poor fit for journalists who want to break new stories. Journalists have become more skeptical of authoritative sources, and more interested in finding alternative perspectives. "Whom one asks for information influences what information one receives" (Tuchman, 1978, p. 81), and journalists know that many people have not been asked. New sources could offer untapped sources of knowledge, diverse viewpoints, potential scoops—or a combination of all three.

At the same time, some journalists are seeing potential in increasingly powerful and increasingly networked technologies. The digital age has made available new tools and techniques for finding and evaluating information, and communicating with sources.

I explore in this dissertation how these two trends—skepticism of traditional sources, and increasingly powerful communications technologies—are influencing the ways journalists report stories. I ask: how are journalists gathering information for their reporting in the digital age? Are they using digital technologies to find different sources and story ideas than they would using "shoe-leather" reporting? How are they vetting the sources they locate electronically? And have these tools changed the ways they interact with sources?

This chapter describes the methodologies I have used to address these questions. I will then examine the two types of sources that are commonly defined by journalists. There are the authoritative, familiar sources I have described, which journalists often call "the usual suspects." Then there is everybody else—a group that journalists call "real people." I will introduce the three stages of the reporting process: finding sources, evaluating sources, and managing sources. I will revisit these three stages in chapters 4-6 to show how journalists have used digital tools in the reporting process. Finally, I will explore in this chapter the evolution of sourcing practices, and the use of computing, over the history of U.S. journalism.

Methodologies

I have taken a mixed-method approach to this research. It is largely based on interview and participant observation data gathered between 2012 and 2014. I have also gathered data using online ethnographic methods, sometimes called "netnography" (Kozinets, 2010). This includes personal use of some of the digital search tools described in this research, and observation of the online interactions of journalists. My data also include a survey of journalists who used one of the digital search tools I studied, the Public Insight Network.

My research included interviews with 20 newspaper journalists to learn about their day-to-day processes for gathering information. I asked journalists to walk through their reporting process for five stories they had recently written, beginning from how the story idea came about, proceeding through their contacts with all sources they consulted, and discussing any sources they tried but were unable to include in their stories. I then asked journalists to label their story content to indicate which information came from which sources. Finally, I asked journalists about their general use of digital search tools, including social media. To protect confidentiality, all names of these journalists are presented as pseudonyms.

In preparation, I used a convenience sample of eight other journalists to conduct preliminary interviews. These journalists worked in a variety of media, including online-only news sites, newspapers, magazines, and radio. Based on their responses, I refined my interview schedule.

I additionally interviewed five investigative journalists. These interviews took a more open-ended format. Rather than discussing specific articles, I asked investigative journalists more generally about their information gathering processes, including their use of digital tools. I opted to take a different approach to these interviews for several reasons. First, investigative stories were more likely to include anonymous sources, so journalists were less willing to reveal their reporting processes in detail. Second, investigative journalists often worked in teams, so the information they gathered represented only parts of the articles they produced. Finally, investigative journalists wrote less often, so their memories of the processes they used to gather information for their most recent stories would likely be less reliable. None of the investigative journalists I interviewed requested anonymity, so I have identified them by name in my research.

I also conducted several other interviews related to the digital tools referenced in this research. I interviewed founders, administrators and users of source-finding tools including the Public Insight Network (PIN), Storyful, Geofeedia, and SourceSleuth.

The participant observation portion of this research lasted approximately three months and was conducted in five newsrooms that used PIN. Additionally, I participated in two annual gatherings held for journalists who used PIN, where they shared best practices and strategized approaches to common challenges. I also spoke at one of these gatherings myself about my research in progress, and met with several journalists informally to talk about their experiences. One of the news organizations where I conducted fieldwork additionally allowed me to act as a source recruiter on its behalf, meaning that I represented that organization in public in an attempt to build interest in the sourcing database among members of the community. I also attended public talks given by administrators of PIN and Storyful, and various workshops for journalists on investigative and computational reporting methods.

I collected survey data from 54 journalists who used PIN. The journalists represented a total of 34 organizations out of the roughly 70 that used PIN at the time. I asked journalists about how their organizations used the tool, and what they perceived as its strong and weak points. The full questionnaire is included as an appendix to this dissertation. I also interviewed seven journalists who had indicated on their surveys that they were willing to answer follow-up questions.

The netnographic portion of my research included accessing online two of the digital search tools that receive the most attention in this dissertation: PIN and Storyful. I was given access to both sites that allowed me to see their interfaces from the perspective of their clients. I also used another digital search tool called Banjo, which is an application that is free to download. My online research also included participation in webinars and conference calls for journalists that were sponsored by PIN, Geofeedia, and LinkedIn. I observed interactions among journalists themselves online, including on email lists and social media. I watched recorded speeches that administrators and users of PIN, Storyful, Geofeedia, and Dataminr had given to various audiences. I also listened to a series of podcasts produced about PIN, which highlighted what news organizations considered to be best practices for using the tool.

Types of Sources

Journalists have tended to see the world of potential sources as divided in two: "the usual suspects," and "real people." These two groups can be loosely defined as "the people we use all the time," and "the people we use sometimes, in specific circumstances." As I will argue in Chapter 2, I believe that these are not the only types of sources. For now, however, these two types deserve closer examination.

The Usual Suspects

Certain sources have enjoyed privileged status among journalists because they have excelled at meeting what sociologist Herbert Gans (1979) called source "considerations." Those considerations included:

1. Past suitability. If sources had been in the news before and provided useful information, journalists were more likely to use them again. Gans found one exception to this consideration: journalists were disinclined to use sources who had appeared in the news *too* often (and what "too often" meant might vary).
2. Productivity. Journalists wanted sources who could supply the most information in the least amount of time. Particularly attractive were "organizations that carry out the equivalent of investigative reporting, offer the results of their work as 'exclusives,' and can afford to do so anonymously, foregoing the rewards of publicity" (p. 121).

3. Reliability. Journalists preferred sources who were credible, or at least could be explicitly identified in news articles so that they could be held publicly accountable for what they said.

4. Trustworthiness. This was very much related to "past suitability"; determining the trustworthiness of a new source was more difficult. Journalists sometimes gauged trustworthiness according to measures they used in their non-professional lives, such as whether sources appeared to be friendly and straightforward.

5. Authoritativeness. Reporters preferred official sources because they purported to speak on behalf of many people.

6. Articulateness. Reporters preferred sources who were good talkers. That is, they expressed themselves succinctly, with a neutral accent, and without jargon or slang. Less articulate speakers created more work for journalists, who had to be more selective about which quotes they chose. Journalists sometimes even edited sources to make them sound more coherent.

Gans conducted his research in the 1960s and 1970s. Although much about news reporting has changed since then, his work has remained influential. This is in part due to a lack of recent empirical research on sourcing practices.

Membership in the usual suspects has been heavily influenced by, although not guaranteed by, what sources have done for a living. The most "usual" of the usual suspects have been public officials (Brown, Bybee, Wearden, & Straughan, 1987; Ericson, 1998; Soloski, 1989). Political communication scholar Leon V. Sigal (1973) found that 78 percent of sources identified in front-page articles were officials. Television-based studies also found that officials dominated news coverage (Drew, 1972). Research in other countries has similarly found that officials were the most common type of source (Davis, 2000; Reich, 2009; Shehata, 2010).

Not all of the usual suspects have been public officials. Others have included business and non-profit executives, and experts in industry, politics and academia. One study found that 25 percent of sources were "affiliated" with non-governmental interests such as "medicine, religion, business, law firms, organized labor, special interest group, the media," or a political party (Brown, Bybee, Wearden, & Straughan, 1987, p. 48). A similar study of local and network television news found that up to 36 percent of sources were "affiliated" (Berkowitz, 1987). Media that served niche audiences might feature certain types of usual suspects more than others. One study found that senior executives accounted for 62 percent of sources in business magazines (McShane, 1995). A study of health-related magazines found that physicians either authored, or were quoted in, 42 percent of stories (Stempel & Culbertson, 1984).

The usual suspects have also included public relations professionals. Journalists have used public relations professionals because of their tendency to provide what communications scholar Oscar Gandy (1982) called "information subsidies," or easily-digestible news material like press releases, photos and stock video. Gandy called such materials subsidies because they were available "at something less than the cost a user would face in the absence of a subsidy" (p. 61); they made news easier for journalists to produce. It came "on a platter" (Schudson, 2003, p. 137). Many public relations professionals once worked as journalists, and their knowledge of the profession could help them frame information subsidies in ways that news organizations found useful (Darnton, 1975). Public relations professionals could also make news cheaper to produce, providing transportation and free samples to encourage coverage of particular stories (Cutlip, 1962). The effectiveness of information subsidies has not been easy to trace. Past studies found that roughly half of press releases resulted in news coverage (Martin & Singletary, 1981; Turk, 1986). But sometimes journalists used press materials indirectly, to generate ideas for related stories (Curtin, 1999). Some journalists believe that public relations professionals have gained influence over news because reporters are expected to produce content faster than ever. Electronic communications have also allowed for the easier and cheaper distribution of press releases (Lewis, Williams, & Franklin, 2008).

How "the usual suspects" came to be a term used in journalism is not clear. The phrase's likely origin was the 1942 film *Casablanca*. It was part of a famous line by French police prefect Louis Renault, played by Claude Rains. Near the end of the film, Renault ordered his officers to "round up the usual suspects" when they discovered that Heinrich Strasser, a Nazi, had been shot. Renault's order was a deception. He had witnessed the shooting himself, and knew who had done it: Rick Blaine, the movie's protagonist, played by Humphrey Bogart. By sending away his officers, Renault saved Blaine, and signaled an end to his cooperation with the Nazis. Blaine declared that he and Renault were at the "beginning of a beautiful friendship."

But Renault's "round up" order was not just a deception to save the life of the film's hero. It was also a cynical order. He sent his officers off to harass—we do not know who, exactly, but presumably some of the many refugees who had ended up in Casablanca—even though he knew that "the usual suspects" had nothing to do with Strasser's shooting. It was not the only cynical "roundup" that police conducted in the film. Near the beginning, an unidentified officer announced that police were to "round up all suspicious characters and search them for stolen documents" in an investigation into the murder of two German couriers. Some observers of the "roundup" observed that young girls tended to be caught in the dragnet—suggesting that Renault then exploited them.

The phrase thus reflected badly on both parties involved: the suspects, and the police. As the Oxford English Dictionary has defined the term, the usual suspects are "people habitually suspected, detained, or arrested in response to a crime, *esp. regarded as scapegoats rather than plausible perpetrators* (emphasis mine)" (2010). So, while the usual suspects might be shady characters, so too might be the police who rounded them up. Police officers could be incompetent, lazy, or even bigoted, as they were often depicted in a series of columns in an African-American newspaper in the 1950s and 1960s. John Jordan with Virginia's *New Journal and Guide* was fond of using the phrase "the usual suspects" in his rundowns of recent police activity in the area. In one such column about a raid of illegal distilleries, he wrote that "the white folks came out clean in the weekend's mass roundup of 'the usual suspects.'" Police had arrested 500 people, none of them white. Jordan wryly congratulated whites for staying out of trouble. "They have attained a record of purity unique in history" (Jordan, 1963).

Journalists began applying the phrase to their own work in the 1970s. Syndicated columnist Ellen Goodman (1979) used the phrase to decry the practice of finding sources who could represent both a "pro" and "con" side to whatever issues journalists happened to be covering, with the goal of having their news organizations appear to be "balanced." The practice has also sometimes been called "he said, she said" journalism. "On any controversial story, the reporter is instructed to get 'both sides' and portray them equally, even if one side has all the validity of the Flat Earth theory," Goodman wrote. Columnist Russell Baker accused journalists of rounding up the usual suspects to add sensationalism to otherwise boring stories. He wrote that journalists stoked controversy by going to "the usual suspects," meaning extremists, "to generate some heat in a very cool story" (1986). Other critics accused journalists of being duped by the usual suspects in politics who used the media to spread disinformation (Randolph, 1986).

Since then, the usual suspects have taken on a variety of meanings. Some were still notorious figures: editorial writers used the term to describe unpopular figures like overpaid corporate executives (Meyerson, 2004) and lazy politicians (Smith, 1988). But the usual suspects could also be much more mundane. Sometimes they were not even people. They could be consistently top-rated television shows ("TV Ratings," 1987), or causes of nighttime car accidents ("Most Drivers Don't Realize," 1986). The phrase could even be used to portray usual suspects in a positive way. "The usual suspects" could suggest familiarity and comfort; it was shorthand for "these folks you know well." The phrase was used in one local newspaper to describe winners of an annual race (Woody, 1988). In another newspaper, the usual suspects were local dignitaries who marched in a parade (Churchville, 1986). The usual suspects could even be elites. They were "these folks you know well, although not personally," such as sports stars (Walker, 2007) and famous actors (Ebert, 2007).

The phrase has still retained some of its original notoriety. After all, it was the title of a 1995 film about group of career criminals connected to a murder mystery. But over time, its meaning had been broadened to include many types of familiar names and faces, including those that were familiar to journalists. Ambivalence over the meaning of the term in news articles reflects, perhaps, an ambivalence among journalists about their feelings toward the usual suspects.

On the one hand, the usual suspects have helped journalists work efficiently. They met Gans' considerations, and they helped set the news "agenda" (McCombs & Shaw, 1972). Because of their presumed importance, the usual suspects helped set priorities for their coverage. When they were unsure of whether particular stories had news value, they could take cues from the usual suspects, whose presence at events or statements about topics could make news by themselves. The involvement of, or reaction to, events by usual suspects served as an "index of newsworthiness." (Epstein, 1973, p. 144). Journalists could also burnish their own reputations by citing the usual suspects, since the most powerful sources limited their media contacts (Zelizer, 1989).

On the other hand, journalists have felt wary of the usual suspects. Journalists felt that depending on them too much could make them "a mouthpiece of the organizations that provide the necessary input texts" (van Dijk, 1988, p. 129). A crime journalist may spend a lot of time with police to win their trust and understand their work, but "the reporter does not want to start becoming a cop's buddy, or risk losing the critical, skeptical edge necessary to effective journalism" (Pavlik, 2004, p. 22). Their wariness of the usual suspects comes out in the ways they talk about their work. Reich (2009), for instance, found that journalists were reluctant to discuss stories that were dominated by the usual suspects. Journalists have described public relations practitioners as less interested in factual accuracy than in portraying particular subjects in a positive light (Sallot, Steinfatt, & Salwen, 1998) or in getting "free advertising" (Curtin, 1999, p. 64). Journalists also saw public relations professionals as obstructionist and untrustworthy (Pincus, Rimmer, Rayfield & Cropp, 1993).

Journalists have also sought to get beyond the usual suspects in order to do original reporting. Angela Phillips, a British journalist and journalism professor, has defined original reporting as that which

> follows up information provided by official sources, or is derived from unofficial sources that have been cross-checked and verified. This is the type of reporting that holds power to account rather than merely reporting on the powerful. It is only via questioning and investigating that journalists challenge the information that is sliced, diced and packaged for their consumption. (2010b, p. 50)

Journalists have taken the most pride in stories that they initiated rather than those that came from sources (Reich, 2009). They have considered their most "important" stories to be those that were "original and usually followed up with a considerable amount of research" (Phillips, 2010a, p. 91). Journalists have also considered original reporting, "the 'scoop', exclusive information and also distinctive rarity," (Bourdieu, 2005, p. 44) as what distinguished their work from other types of writing, including the "inferior product" (Fenton & Witschge, 2010) of blogging. Anderson (2013b) also found that journalists and observers of journalism valorized original reporting as essential for a healthy democracy, although they did not necessarily specify how.

Journalists have also cited another reason for disliking the usual suspects: they tended to be boring. While the availability of the usual suspects could make them attractive sources, talking to them could also be, well, routine (Ostertag and Tuchman, 2012). Journalists have described daily political coverage as "talking heads and meetings," and "government glop" (Hess, 1994, p. 75). Public meetings, and the people who attended them, could be predictable (Soley, 1992). Some of the usual suspects even tried to be boring on purpose, undergoing media training in order to learn how to speak blandly and avoid controversial topics (Elliott and Koper, 2002).

Another downside of the usual suspects has been that they tended not to give scoops. The usual suspects, as self-interested sources, wanted to maximize the amount of publicity they could generate. It was generally not in their interests to restrict their messages to only one journalist. The most scintillating scoops have come on matters that the usual suspects would have preferred were kept quiet, such as government scandals.

> Sy Hersh got the My Lai story from a bunch of guys you never heard of, which is, of course, the way the *Post's* Watergate story began. The *Washington*

> *Monthly*'s greatest scoop, how the Army was spying on civilian politics, came not from the Secretary of Defense but from a captain in the Army Reserve named Christopher Pyle. (Peters, 1973, p. 15)

Some journalists have also argued that the usual suspects drowned out other perspectives that deserved to be represented in news coverage. "Haven't these suspects been questioned enough?" (Alter, 1985) one columnist wrote. Former journalist Arthur Charity wrote that "a good reporter ought to clearly understand what you need to know from the public that you can't know from anybody else, and what you need to know from experts that you can't know from anybody else" (1995, p. 76).

Real People

Journalists have used another term to describe sources who are not the usual suspects: "real people." Sometimes journalists have instead called this group "ordinary people" (Allan, 2007) or "regular people" (Robinson, 2011). These sources have generally had little experience speaking to journalists. Real people who have appeared in news stories have tended to be "victims; heroes; witnesses; experts; non-professional representatives of movements, organizations, or causes; and people in human-interest stories of all kinds" (Palmer, 2013). Gans used the term "Unknowns" to describe this group. Unknowns additionally included voters and participants in unusual activities, such as people who "engage in new or bizarre fads, participate in exotic cults or clubs, or develop unusual hobbies" (1979, p. 14). Gans found that Unknowns occupied about 20 percent of the available time or space in news stories he studied. The rest of the news hole, with a handful of exceptions,[1] belonged to Knowns, a group that was similar to the usual suspects.

Real people have tended to play different kinds of roles than those of the usual suspects. Journalists have often said that real people provided "color" to stories, or offered the perspective of the "man on the street." While journalists have sought the usual suspects for particular kinds of professional knowledge, journalists have sought real people for experiential knowledge. Professional knowledge is that which is associated with formal education or training in a particular occupation, and is often recognized by official credentials. Experiential knowledge, by contrast, comes from personal, everyday actions and encounters. All people collect experiential knowledge just by living their lives. Sociologist Thomasina Borkman defined experiential knowledge as:

> wisdom and know-how gained from personal participation in a phenomenon instead of isolated, unorganized bits of facts and feelings upon which a person has not reflected. This wisdom and know-how tend to be concrete, specific, and commonsensical, since they are based on the individual's actual experience, which is unique, limited, and more or less representative of the experience of others who have the same problem. (1976, p. 446)

The problem that Borkman studied was alcohol addiction. She observed participants in Alcoholics Anonymous and found that recovering alcoholics who offered practical advice to their peers for overcoming addiction were often deemed more credible than scientific experts. The AA members Borkman observed often believed that the experiential knowledge of knowing what addiction felt like was its own form of truth—perhaps even a higher form of truth than the professional knowledge of physicians or therapists.

[1] Gans' exceptions included "animals, objects, and abstractions."

AA's approach to addiction recovery itself prioritized experiential knowledge over professional knowledge. AA members tended to follow "not a set of beliefs but rather a set of *practices*" (Valverde & White-Mair, 1999, p. 394). The organization's well-known 12 steps were based on concrete behaviors and practical "one day at a time" advice, believing it to be a better path to recovery than the pharmaceutical interventions that medical professionals sometimes prescribed. AA members could often be "skeptical and resistant" (Hurvitz, 1970, p. 45) when medical professionals tried to attend their meetings. The rejection of professional knowledge by AA members reflected a perception of alcoholism as a personal struggle, a "disease of the will" (Valverde, 1998) rather than a disease of the body, which physicians were trained to address.

Experiential knowledge and professional knowledge sometimes compete for authority, but they can also complement each other. Patient-centered health care, for example, is based on the premise that combining the professional knowledge of doctors with the experiential knowledge of patients can lead to better treatments. AIDS activists and physicians, for example, collaborated to make more experimental treatments available in the 1980s. The activists "were constituted as participants from the start and thus could claim to have a unique and important perspective on the process" (Epstein, 1995, p. 426). People who hold both professional and experiential knowledge can build bridges between the two.

Experiential knowledge has not only been associated with personal problems. It comes from engagement in any activities, including hobbies and routines, which become familiar to the point that participating in those activities becomes instinctual. For example, manual skills like driving a car must be developed through experience rather than through formal instruction alone, because "merely following rules will produce poor performance in the real world" (Dreyfus & Dreyfus, 2005, p. 782). Even a mundane activity like commuting to a job leads to experiential knowledge about road conditions and traffic patterns.

Journalists have sought sources with experiential knowledge to complement the professional knowledge that the usual suspects provided. Just as experiential knowledge could complement professional knowledge in the areas of addiction and patient centered health care, having both kinds of knowledge in news stories could provide a more well-rounded portrayal of public issues. "At times the best sources about the deterrent effects of imprisonment may not be statisticians, but prisoners; the best sources about welfare may not be sociologists, but welfare recipients" (Charity, 1995, p. 81).

Just as AA members could consider experiential knowledge to be more credible than professional knowledge, journalists could consider real people more credible than the usual suspects. Journalists could be skeptical of authority. They could be uncomfortable with the fact that they had to take on faith the professional knowledge of expert sources that was too "esoteric or complex" (Freidson, 1988, p. 45) to judge independently. Journalists have also placed considerable trust in experiential knowledge that took the form of eyewitness accounts (Reich, 2009). Journalists themselves are rarely available to observe events personally because shrinking workforces and faster news cycles increasingly tied them to their desks. Other news events, like accidents and natural disasters, occurred spontaneously, so whoever happened to be an eyewitness was left to chance. Social media could serve as virtual proxies for witnessing events that journalists could not see in person. News organizations were able to cover the 2009 Iranian election protests, for example, despite the government's attempts to suppress media, by finding and distributing photos and videos on YouTube and Twitter (Newman, 2009).

Experiential knowledge could also be useful to journalists because it often took the form of stories. Members of AA and other self-help groups often shared confessionals, testimonials and stories of self-transformations through personal discoveries of truth. The story form has also been used in spiritual conversions, personal epiphanies and social movements. Such narratives have been easy to follow because they "assimilate confusing events into familiar frameworks" (Polletta, 2006, p. 34) by organizing "time and emplot[ting] a course of events to convey meaning with their life stories" (DeGloma, 2010, p. 520). Journalists have valued personal stories because they see them as effective means of making public issues that are relevant to the private lives of their audiences (Glasser, 1991). They have seen storytelling as a more compelling way to communicate ideas to their audiences than by using abstract arguments (Bird & Dardenne, 1988; Gamson, 2001). And stories that were highly personal could still reveal larger social truths. They "reflect and advance certain culturally constituted conceptions of knowledge and reality in the world" (DeGloma, 2010, p. 535). Whether news audiences have actually found personalized stories to be more compelling and memorable has been disputed. Still, journalists believe that personalized stories have been effective, so they have continued to use them (Iyengar & Kinder, 1987).

Journalists have sought experiential knowledge for not only practical, but also ethical, reasons. Professional ethics codes have called on journalists to reach beyond the usual suspects, to "give voice to the voiceless" (Society of Professional Journalists, 1996), "reflect the diversity of the community" (Radio Television News Directors Association, 2000). It was not just the job of news organizations to keep audiences informed about the activities of the usual suspects. It was also their job to serve diverse constituencies, by covering them in news stories, making their personal struggles public, and providing a forum for them to air their concerns.

Three Stages of Reporting

The ways that journalists have searched for sources, evaluated their credibility, and managed their relationships with them offers further explanation for why some sources have received preferred treatment. Journalists have favored sources they could find easily, who offered proof of their credibility, and were cooperative.

Finding Sources

Prior research has suggested that journalists positioned themselves at physical locations where they could maximize their exposure to potential stories. They have gone to "those points at which masses of information collect" (Fishman, 1980, p. 46), such as courthouses and police stations. Journalists were not necessarily stationary. They also performed "rounds," or regular visits to people and places that were reliable providers of information: "over and over, their round leads them to the same locations at the same times" (p. 43). A journalist covering local courts could, for instance, drop by an administrator's office in the morning to look at the latest schedule of proceedings; then she might walk down the hall to see which civil cases were filed within the last day; then she might chat with the secretary in the district attorney's office to see whether anything interesting was happening. Journalists have appreciated the usual suspects for their consistent supplies of newsworthy information.

When journalists have wanted to find real people, they knew their search would likely take longer. The most efficient way to bring real people into stories was by conducting "man on the street" interviews, also called "reaction" or "vox pop" (short for the Latin term "vox populi," meaning "voice of the people"). For these interviews, journalists have literally gone to streets and stopped passersby. Despite how often journalists do these interviews, they tend not to enjoy them. The questions they ask are often superficial, and the answers equally so. Sometimes people are rude. Sometimes they have nothing relevant to say. "I can’t count the number of times I was sent out to get citizens’ reactions to some development or other and most of the people I talked to had no idea what I was asking about" (Potter, 2010) wrote a former journalist. News audiences have suggested that they do not enjoy man on the street interviews, either. They "don't care what some random dude in Florida thinks" (Schumacher-Matos, 2012). Why does a person picked by chance get the honor of being heard in such a public forum?

Journalists may also find sources among real people by enlisting the help of usual suspects. A spokesperson for a homeless advocacy organization might help a journalist find homeless people to interview. The downside of this approach has been that it "might yield a source handpicked to suit the intermediary's agenda" (Janssen, 2011). Interviewing the handpicked homeless person would likely yield different results than interviewing other homeless people whom advocates have been unable to reach. Other approaches for finding sources among real people have included visit to what some journalists call "third places." They are the real-people equivalent of Fishman's "points at which masses of information collect." Third places are public locations where real people collect, including community centers, churches, bus stops, barbershops and diners. Advocates of finding stories in third places, however, have warned journalists to proceed carefully.

> Get into the flow of their conversation so that they know that you know what their conversation is really all about. At some point, maybe not even the first time, but the second time, you might start to ask questions when someone brings up a related topic like about the economy… But you, again, have to be careful. The rapid-fire journalist questions will not work in this kind of environment. It will shut people down. (Pew Center for Civic Journalism, 2000)

Accessing real people sources in a way that goes beyond superficial, man on the street-type interviews, then, often requires time. Journalists can also never be sure how much time they will have to invest in a particular place before their investment yields sources or story ideas.

Evaluating Credibility

Usual suspects are automatically presumed to be credible, which frees journalists from having to do additional vetting. "'Everyone knows' that responsible professionals know more about things than laymen, that police are more respectable and their words ought to be taken more seriously than those of the deviants and criminals with whom they deal" (Becker, 1966, p. 242). Government officials are particularly afforded trust, because "the assumption is that the holder of a legitimated status speaks for the government. All others must demonstrate their relationship to a more amorphous entity—the public.” (Tuchman, 1978, p. 92). This assumption is held not only by journalists, but also their audiences (McNair, 1998). Journalists may only grant space to opposing viewpoints if they come from other usual suspects (Fishman, 1980).

In truth, journalists do not believe all of the usual suspects to be all that credible. Any journalist "knows that all sources are 'selling him a line,' that they are all to some degree unreliable" (Chibnall, 1977, p. 177), because they want to promote a version of the truth that best suits their own interests. But because the usual suspects are publicly presumed to be credible, journalists have felt less pressure to fact-check what they say (Ericson, 1998). When usual suspects have lied to reporters, and the lies were exposed, the usual suspects bore the brunt of the criticism. But when real people have lied to journalists, and those lies were exposed, the journalists were the ones whose reputations suffered.

Of course, the usual suspects have been wrong. They have made mistakes, and they have lied. And journalists who have failed to report those wrongs could still face consequences. Journalists who covered the Iraq War, for example, were criticized for not scrutinizing more closely false claims from the Bush administration that Iraq had close ties to al-Qaeda and that it held weapons of mass destruction. Warren Strobel and Jonathan Landay of Knight Ridder, who won praise for their critical reporting on the Iraq war (Wemple, 2013), found that less powerful sources had often been more credible than their superiors. According to Strobel:

> When you're talking to the working grunts, you know, uniform military officers, intelligence professionals, professional diplomats, those people are more likely than not—not always, of course, but more likely than not—to tell you some version of the truth, and to be knowledgeable about what they're talking about when it comes to terrorism or the Middle East, things like that. (quoted in Hughes, 2007)

As Strobel and Landay also noted, "you can't develop these kinds of sources overnight" (Follmer, 2008). They reported on the war for a year and a half. However, many of their rivals also reported on the war over a long period of time, and still got the story wrong because they presumed the usual suspects to be credible.

Journalists who have deigned to doubt the credibility of powerful sources have jeopardized their careers, however. Journalists who questioned the Bush administration after 9/11, including during the Iraq war, could be seen as unpatriotic. Strobel and Landay said that many newspapers in the Knight Ridder chain refused to run their stories. The Nixon administration often cut off journalists from access to news events after they asked tough questions or wrote unflattering articles (Peters, 1973). In other cases, journalists have simply withheld criticism if they feared losing access to powerful sources. Some medical journalists admitted not asking whether a source had financial ties to pharmaceutical companies, "for fear that the source will take umbrage and refuse to be interviewed" (Lenzer & Brownlee, 2008, p. 208).

Assessing the credibility of real people as sources can be difficult. This is one reason that some journalists prefer to use usual suspects as intermediaries to find real people. If usual suspects could vouch for them, real people become more credible. Journalists have also been more likely to believe "socially proximate sources, such as peers and friends" (Gans, 1979, p. 130) to be credible. For other real people, believing them to credible was a risk. Journalists had to feel confident enough about their sources' credibility not just to alleviate their own concerns; they also had to win over their editors and audiences.

Managing Sources

After finding sources and deeming them to be credible, journalists have had to manage their relationships with them. They have had to request access from sources, negotiate permission to attribute information to them, and maintain goodwill if they hoped to return to those sources in the future.

Sources have tended to be more accessible when cooperating with reporters helped them achieve their own goals. Sources could be less accessible if they feared that journalists would portray them in a negative light. However, that was not always true. Crisis managers have argued that sources could mitigate some of the damage from their negative portrayals in the media by being forthcoming about their missteps (Ashcroft, 1997). Some publicists have also purposely tried to generate negative publicity around their clients, believing that provoking hostile reactions was the best way to attract media attention (Holiday, 2012). Journalists could also encourage source cooperation by passing along information that they found useful (Ericson, Baranek, & Chan, 1989).

The ways journalists attributed information to sources depended on the roles they played in stories. Journalists have seen some sources as providers of facts, while others offered opinions. Communications scholar Sandrine Boudana (2009) has defined these two roles as "sources" and "voices." Journalists used sources as credible authorities; journalists used voices to "animate the story" (p. 285) and demonstrate respect for pluralistic viewpoints. Journalists who wrongly portrayed sources as voices could alienate them by suggesting that their contributions were not based on fact. Wrongly portraying voices as sources put the credibility of journalists at risk. Portraying voices as sources suggested that their perspectives had the critical distance of objective observers.

Journalists tried to remain on good terms with sources they thought they might need again. That could lead journalists to avoid using quotes that reflected poorly on sources (Soloski, 1989). Upsetting real people, who were less likely to be repeat sources, carried less risk.

The ways that journalists have imagined the two types of sources have shaped their approaches to them during all three stages of the reporting process. The usual suspects were easy to find, unnecessary to vet, and required little management. The search, evaluation, and management processes for real people tended to be more difficult, riskier, and time-consuming. Still, journalists wanted to use real people in their stories—particularly as they became more wary of the usual suspects, and saw new opportunities in search-related technologies.

Skepticism of Authority and Technological Advancements

This dissertation focuses on how the ways journalists find sources have been shaped by two trends: an increasing skepticism of the usual suspects, and the availability of increasingly powerful technology. As described earlier in this chapter, journalists have had mixed feelings about relying on the usual suspects for news. At the same time, journalists have embraced technologies that had the potential to make their jobs easier, or more enjoyable.

Skepticism of Usual Suspects

News has not always been dominated by the usual suspects. To the extent that source considerations existed in colonial times, they were mostly based on the judgments of individual printers. Most colonial newspapers were intended to be advertisements for printing businesses. Source considerations thus related to 1) who and what individual printers could find and 2) whether the printers felt the source material was of good taste. Colonial newspapers did not have reporters; sources were whoever wished to submit content. Their publications were dominated by "local advertising, occasional small paragraphs of local gossip, and large chunks of European political and economic intelligence taken directly from London newspapers" (Schudson, 2003, p. 72). Newspapers also copied items from other colonial newspapers, and printed letters from acquaintances of printers who lived in other colonies (Clark & Wetherell, 1989). Newspaper content changed, however, after the British passed the Stamp Act in 1765. The act drastically raised prices for distributing publications in the colonies, which angered printers. They turned political and used their publications to air their grievances (Starr, 2004). Pro-Crown viewpoints were generally not accepted, and newspapers that attempted to accommodate "both sides" led readers to drop their subscriptions in protest (Main, 1961).

Processes for finding news sources changed in the 19th century, when newspapers began to employ reporters and print more local news. Sources were no longer necessarily guest authors or content that printers acquired from other publications. Sources could be people whom reporters asked questions. Reporters could also serve as sources themselves, writing in the first person about events and scenes they observed. Civil War reporting included their own observations as well as their communications with others in battle. Many newspapers were also still open to contributions from other writers—and in a variety of formats, including

> poetry, stories, and other belles lettres, which they saw not as mere entertainment but rather as engines of refinement and enlightenment that were just as deserving of column inches as the latest happenings in the police court, the circus, and the streets. (Tucher, 2006, p. 136)

Interviewing became increasingly common after the Civil War. Reporters no longer had to choose sources among those based around events that were occurring on a given day; the interview itself was a kind of media event, "a journalistic coup"

(Schudson, 1995, p. 82). Being the first to interview a particular source could itself be newsworthy.

Some 19th century newspapers remained partisan, and their leanings shaped which sources reporters used. Those newspapers featured stories about their own party's speeches and rallies, while not covering similar activities by other politicians. But other newspapers were becoming increasingly commercial. The "penny press" favored funding from advertisers and subscribers over political parties, and aimed for mass audiences rather than partisan ones. Penny press newspapers competed with each other in the areas of price and on speed. Newspapers would use headlines like "News by Telegraph" and "Arrival of the Asia" (a steamer that brought in overseas news) to show readers just how speedy they were (Schudson, 1978, p. 66). The more efficiently that journalists could find sources and gather information from them, the better. "There were several logistical locations where stories might be expected to occur, such as central police stations and courts processing crimes that might titillate the urban masses" (Tuchman, 1978, p. 18).

In the 20th century, journalists increasingly adopted an ideal of objectivity in their reporting. Objectivity was connected to other efforts, such as the formation of professional associations and creation of codes of ethics, to enforce standards of who should or should not be considered a journalist (Schudson, 2001). Objectivity prioritized sources who could provide balanced facts rather than opinions. Journalists were free from the limits of using single-party sources—"only to find their new-found independence besieged by a squadron of information mercenaries available for hire by government, business, politicians, and others" (p. 162). The work of objective journalists became to identify authoritative sources and present what they said, while keeping the tone of the article neutral (Tuchman, 1972). The objectivity norm in journalism, thus, was connected to a reliance on the usual suspects.

In the late 20th century, journalists became increasingly interested in finding alternatives to the usual suspects. Contextual journalism, public journalism, and crowdsourced journalism all arose during this time.

Contextual journalism. Reporting styles changed in the second half of the 20th century. Most newspaper stories in the 1950s were written in "inverted pyramid" style, with the most salient facts in the first paragraph. These usually took the form of answers to the five "W" and one "H" questions (who, what, when, where, why, and how). But a shift occurred sometime in the late 1960s and early 1970s to a writing style that was more contextual in nature. Rather than simply reporting "just the facts," journalists provided more background information and analysis in their news stories (Fink & Schudson, 2014). That meant stories that were longer and had softer leads (Stepp, 1999) and were more likely to be based on past or future events, rather than those that had occurred in the last day or so (Barnhurst, 2011). Broadcast journalists began to put more of their stories in their own words, while shortening the sound bites they used from other speakers. The gap in soundbite length between elite and non-elite speakers also shrank. Elites spoke for an average of 48.9 seconds in 1968; by 1988 it had shrunk to 8.9 seconds. Nonelites have always been allowed less time to speak—13.6 seconds in 1968 and 4.2 seconds in

1988—but the difference between the two type of sources has been less dramatic (Hallin, 1992).

Several factors may explain the shift toward contextual journalism. One may be economic changes. Newspapers faced increased competition for audiences from television news beginning in the 1950s. Print journalists may have adopted a more contextual form of writing to differentiate their content from that of television and radio, which tended to have shorter, event-driven stories. Barnhurst and Mutz (1997) also cited cultural changes in journalism, such as an increased interest in social science methods, and a growing complexity of everyday life that required more explanation. Barnhurst said news audiences also expected more of journalists:

> This was a reaction to the times - an era when there was heavy institutional criticism, and when everything had to be 'relevant.' The media were criticized for not providing enough context to political events, so that people could make informed decisions. There was huge demand for the media to change, to be responsive and provide explanations, recommendations, and a discussion of the causes of events. (quoted in Wooley, 2001)

A new genre even developed around this time called "explanatory journalism," aimed at helping audiences put current events in greater context (Forde, 2007). The Pulitzer Prize committee created a new category in 1985 to honor explanatory journalism.

Journalists were also expressing their skepticism of the usual suspects more publicly than they had before. They recognized that the usual suspects were becoming more adept at using news media to control the flow of information. Journalists became increasingly adversarial during political news conferences and interviews. The adversarial behavior of journalists may have partly been an assertion of their professional status, which had long been contested (McChesney, 2011; Zelizer, 1992). Asking confrontational questions allowed journalists to "present themselves as autonomous professionals who are willing to hold even the most elite agents of power accountable before the public" (Clayman & Heritage, 2002, p. 772). Journalists who took an adversarial stance earned the respect of their colleagues, while those who did not were seen as lazy, gullible, or both. Crouse's *Boys on the Bus*, which followed political reporters, noted several instances in which journalists derided each other for being too acquiescent to the news frames of politicians. Said one colleague of *New York Times* reporter Johnny Apple:

> The Kennedy people played him like a yo-yo. His needs and their needs absolutely coincided. They wanted to be in the paper today and he wanted to be in the paper every day. They just leaked him stuff and he put it right in. (1973, p. 78-79 footnote)

Editors often did not share the enthusiasm of reporters for contextual journalism, according to Crouse. Just as Apple was assured of getting in the *New York Times* every day with his compliant stories, editors frequently killed stories by another journalist, Jules Witcover, when he "tried to inject some analysis" (p. 108).

Public Journalism. Public journalism, also known as civic journalism, emerged in the late 1980s. By one definition, public journalism was "a search for ways that journalism can serve a purpose beyond—but in place of—merely telling the news. That purpose is reinvigorating public life by re-engaging people in it—by renewing civic capital" (Merritt, 1995, p. 262). To do this, journalists gave the usual suspects less power over setting the news agenda, and instead focused their reporting on "how citizens frame their problems and what citizens see as solutions to those problems" (Pew Center for Civic Journalism, 1995). Journalists were supposed to pursue "solutions-oriented" stories that could empower the public to get more involved in civic life. Public journalism often included election coverage as well as projects that were aimed at promoting community "conversation" (Anderson, Dardenne, & Killenberg, 1994). At least 20 percent of U.S. newspapers attempted a public journalism project at the movement's height (Friedland & Nichols, 2002).

Some scholars traced the beginning of public journalism to the 1988 presidential race, when "political candidates were using journalists to a new degree" (Eksterowicz, 2000, p. 13). Journalists in the movement felt uncomfortably close to politicians, who had become increasingly aware of the power of mass media and increasingly savvy at exploiting it. At the same time, journalists felt more distant from the public, whose opinion of the press was dropping. A Gallup poll that asked “how much trust and confidence do you have in the mass media — such as newspapers, TV and radio — when it comes to reporting the news fully, accurately and fairly," found the percentage of respondents who answered "a great deal" or "a fair amount" dropped from 72 percent in 1976 to 53 percent in 1997 (Gallup, n.d.). By 2013, it had dropped even further, to 44 percent.

Some supporters of public journalism have claimed that its roots went back even earlier, to colonial newspapers in the mid-1700s. Media scholar Jay Rosen has argued that colonial newspapers supplied "the public’s own thinkability as an actor" (2000, p. 679) by, for the first time, presenting a forum that could represent public opinion in opposition to the King. Other scholars have noted connections between public journalism and the Progressive era, when muckraking journalists wrote investigative stories to expose government corruption and social problems. Some scholars agree that muckraking and public journalism were grounded in the recognition of similar problems but contend that the latter took a less confrontational approach, emphasizing positive stories (Fee, 2005; Gamson, 2003).

Public journalism has also been connected to the philosophy of John Dewey. Dewey wrote that publics came together when they were affected by the "indirect consequences" (1927, p. 16) of human actions. Although publics were often not well organized, Dewey believed that communication could help bring them together into a more cohesive, articulate body that he called the Great Community. Dewey's view contrasted with that of Walter Lippmann, who doubted the public's ability to act in its own best interests on matters involving an increasingly complex state. He was also suspicious of propagandists who used manipulative tactics to sway public opinion. Lippmann called for the development of a class of experts that would be trusted to represent the public's interests in advising government actors.

Public journalism never gained widespread support. Media executives did not believe that it improved reporting or led to better connections between journalists and audiences (Pew Center for Civic Journalism, 1998). Determining its impact on news audiences was difficult (Massey & Haas, 2002). Funding for the Pew Center for Civic Journalism, which supported public journalism experiments, ceased in 2003. Journalism professor Lewis Friedland wrote that public journalism was hindered not by its ideas or initiatives, but rather structural challenges: "The magnitude of the task at hand collided with the opacity of the institutions of both journalism and public life that needed to be changed" (2004, p. 36). Some journalists were not necessarily opposed to the ideals of public journalism, but favored more "modest" aspects of it, such as enterprise and solutions-based reporting, over "bolder" approaches like holding town meetings and polling the public (Voakes, 1999). Some critics of public journalism maintained that it never had a coherent philosophy and that the differences between it and mainstream journalistic practices were not clear (Glasser, 2000). Others contended that public journalism was ultimately a conservative movement that sought to empower journalists rather than the public (Schudson, 1999).

Crowdsourced journalism. Journalists have sometimes used crowdsourcing to report stories differently than those that depended on the usual suspects. Crowdsourcing has been defined as “the act of taking a job traditionally performed by a designated agent (usually an employee) and outsourcing it to an undefined, generally large group of people in the form of an open call” (Howe, 2006). Some scholars have defined crowdsourcing as an online-only phenomenon (Brabham, 2013). Others have traced the practice to pre-Internet collaborations, including the 19th century efforts of amateur botanists to collect and classify flora (Howe, 2008).

Being in the crowd has usually required both passion and privilege. Collaborators on these projects have had time and money to spare: "they’re contributing their excess capacity, or 'spare cycles,' to indulge in something they love to do" (Howe, 2008, p. 29). Some crowdsourcing activities have offered monetary rewards, but the chances of earning a living wage have been low. For instance, Proctor and Gamble's InnoCentive competition has offered substantial prizes—up to $100,000—to scientists for solving research problems (InnoCentive, n.d.). Just submitting a project has not guaranteed any compensation at all, however, so most of the labor has been unpaid. Amazon's Mechanical Turk has paid participants to perform menial tasks, such as tagging photos with descriptive text to make them more searchable online. This, too, has not been a path to riches. A personal finance blogger wrote that he averaged a $7.11 hourly wage in his first visit to Mechanical Turk. Noting that it was a rate below minimum wage, the blogger recommended that readers only "fill in spare moments with it—or use it as a stopgap when you're job hunting" (Hamm, 2009). A survey of users on the crowdsourcing website iStockphoto indicated that many of them chose to contribute photos because of the (nominal) monetary rewards, but also because they got a chance to develop their skills and gain recognition from their peers (Brabham, 2008).

Several news organizations have experimented with crowdsourcing—particularly on investigative projects that required sifting through voluminous collections of documents. ProPublica, for example, sought help from readers to track the progress of $27 billion in construction projects that were funded through the American Recovery and Reinvestment Act in 2009. ProPublica has also crowdsourced research on the home mortgage crisis, student loans, and the claims process for Gulf Coast residents who were hurt by the 2010 BP oil spill. The blog Talking Points Memo recruited readers to read through thousands of pages of documents released by the U.S. Department of Justice in response to accusations that some U.S. attorneys were fired in 2007 for political reasons. The *Guardian* crowdsourced an investigation into fraudulent expense claims by Members of Parliament in 2009. "I think now we've realized that actually, we're not always the experts," according to the *Guardian's* former Data Editor, Simon Rogers. "There's somebody out there who knows a lot more than you do, and can thus contribute. So you can get stories back from them, in a way" (Stray, 2010).

The term "crowdsourcing" has also been used to describe citizen journalism projects. Citizen journalism has been defined as reporting that is "participatory" and "user-centered" (Lewis, Kaufhold, & Lasorsa, 2010). Members of the crowd performed work that was once reserved for reporters. Publications that began as citizen journalism initiatives have included Korea's OhMyNews, as well as the Northwest Voice and MyMissourian in the U.S. (Bentley et al., 2007; Joyce, 2007). The Huffington Post launched the crowdsourced journalism initiative OffTheBus to report on the 2008 U.S. presidential race. Twelve-thousand people signed on to help by submitting information about campaign-related events in their communities. Some of them wrote news articles or first-person journals. Other volunteers provided supplementary help in the form of "recording, digging, web searching, e-mailing, news scanning, tape editing, expertise-sharing, columnizing, team playing, and eye-witnessing" (Huffington & Rosen, 2008).

Technological Advancements

Journalists have found computers both fascinating and terrifying. On the one hand, journalists have been attracted to technology because they love novelty, and because they saw in it the potential to make their work more efficient and enjoyable. Technology could present "new opportunities to improve news gathering, by enabling journalists on deadline or on a budget to cast their news gathering net more widely to include non-traditional sources or experts located in far-away places." (Pavlik, 2004, p. 28) On the other hand, many journalists have seen themselves as technologically-challenged and feared that new innovations might lead to more work for them, not less. They also feared that computers could one day replace them entirely.

Precision journalism. Philip Meyer was one of the first journalists to call for the use of computing in reporting. He took a year off from reporting to develop a concept he called "precision journalism," a term that described the application of quantitative social science methodologies to news reporting. Meyer studied social science methods as a Nieman Fellow at Harvard University. Such fellowships have been designed to allow journalists to "step back from deadlines, renew their intellectual curiosity and enrich their understanding of the topics they cover," according to the Nieman Foundation's website.

When his fellowship year was over, Meyer returned to work as a National Correspondent for Knight Ridder newspapers. He applied some of what he learned about social science to his coverage of race riots in Detroit. The riots began following a police raid of an unlicensed bar. Ultimately, however, the riots reflected broader tensions between blacks and whites; race-related conflicts had occurred in more than 40 other U.S. cities the previous summer. Meyer used survey data to refute two claims by editorial writers: first, that participants in the Detroit riots were less educated than non-rioters; and second, that rioters were more likely to have grown up in southern U.S. states. His findings provided fuel for the primary thesis of his book *Precision Journalism*, that “we journalists would be wrong less often if we adapted to our own use some of the research tools of the social scientists” (1973, p. 3).

Precision journalism contrasted sharply to the New Journalism movement, which also developed in the 1960s. New Journalists wrote “journalism that would… read like a novel” (Wolfe, 1972, p. 34), sometimes blurring the line between fact and fiction. Examples of New Journalism include Truman Capote’s *In Cold Blood*, which was based on the story of two men who murdered a Kansas family. Capote befriended the two defendants while they awaited trial. Although the book was based on real events, critics challenged the accuracy of some details. Capote himself did not consider the book to be journalism, but rather a “nonfiction novel” (Plimpton, 1966). But critics of Capote, and the New Journalism movement in general, saw it as a “bastard form, having it both ways, exploiting the factual authority of journalism and the atmospheric license of fiction” (MacDonald, 1965, p. 3). Communications scholar Everette Dennis noted the tension between New Journalism and precision journalism. "New journalists push reporting toward art. Precision journalists push it toward science" (1974, p. 11).

Meyer contended that New Journalism was not the only threat to the authority of news organizations. Too often, he believed, reporters got stories wrong because they relied on anecdotal evidence and hunches. Meyer also argued that the flow of public information was becoming increasingly voluminous and complex, and reporters needed to develop better tools to interpret it. Finally, he wrote that using social science methods could help reporters cover a broader range of stories and perspectives beyond the “self-selected spokesmen” (1973, p. 2) who appeared most often in news stories.

Meyer believed that the journalistic ideal of objectivity prevented widespread acceptance of data analysis in news stories. Objectivity, or at least the “simpleminded” version that Meyer said operated in the U.S. press in the post-war period, encouraged journalists to be as detached as possible from the subjects they covered. “An editor’s explanation: a newspaper reporter should be ‘a professional amateur’ and not clutter his head with too much knowledge about any one thing, lest he lose touch with his readers” (1973, p. 7). Data analysis was seen as an interpretive tool; it was to be used by social scientists, not journalists. Objective journalists only described what they saw; interpretation was the job of people they interviewed.

Still, journalists did begin to adopt some social science methods into their reporting. Political polling had been a regular part of news coverage since George Gallup's triweekly reports in the 1930s (Schudson, 1998, p. 223). In the 1960s and 1970s, news organizations became increasingly interested in conducting their own polls (DeFleur, 1997; Garrison, 1995). CBS News established its first election polling institute in 1967. The number of media-sponsored election polls more than doubled between 1976 and 1988 (Ladd & Benson, 1992). The increase was due to the increasing computing power available to newsrooms as well as their skepticism of third-party pollsters, who often had political affiliations (Meyer, 1991).

The addition of polls did not necessarily lead to good reporting. *USA Today*, ran polls in 1992 that suggested a seesaw race between incumbent president

George Bush and challenger Bill Clinton. One poll showed Bush two percentage points ahead; a later poll showed Clinton ahead by two percentage points. Neither story mentioned, however, that a two-point difference was within the margin of error of both polls, “raising the question of whether any actual change in the candidates’ positions had occurred” (Patterson, 2005, p. 719).

And even polls done correctly could have negative effects. Some scholars have argued that conducting polls could lead to the trivialization of political news coverage by focusing on the “horse race” aspect of campaigns rather than public issues (Broh, 1980; Hallin, 1992; Strömbäck & Dimitrova, 2006). Columnist Nicholas Von Hoffman (1980) wrote that polls belonged in the category of “pseudoevents”—staged activities designed to attract publicity. Bill Kovach of the *New York Times*, while an advocate of “careful” polling, also expressed reservations. The high cost of establishing in-house polling operations, he wrote, may have resulted in “overplaying the results of our polls because of the investment we've made in collecting them” (1980, p. 570).

Computer-assisted reporting. New terms emerged in the 1970s and 1980s to describe the ways that newsrooms engaged with technology: "computer-assisted reporting," (CAR) and, less often, "computer-assisted journalism" (CAJ). Both terms described the use of computers to search, retrieve, and analyze information for news stories (Garrison, 1995), which was happening more frequently, as computers became increasingly affordable and user-friendly. Word processing software was introduced in the 1970s; many journalists got their first personal computers in the

1980s, at the same time that spreadsheets and database software was becoming commercially available.

CAR enthusiasts found support at the University of Missouri's Journalism School, which founded a CAR institute in 1989. By 1994, it had become the National Institute for Computer-Assisted Reporting (NICAR), and was affiliated with the non-profit organization Investigative Reporters and Editors (IRE). NICAR has trained journalists "in the practical skills of finding, prying loose and analyzing electronic information" (Investigative Reporters and Editors, n.d.). It has also acquired and created databases that it has made available for purchase to news organizations. Other universities later joined Missouri in creating CAR-related programs, including Syracuse University's Transactional Records Access Clearinghouse, and the National Institute for Advanced Reporting at Indiana University.

In many ways, precision journalism and CAR fit "under the same conceptual 'roof'" (DeFleur, 1997, p. 177) and shared similar goals. CAR and precision journalism both aimed to use technology to improve reporting. Precision journalism and CAR also both reflected a fear that journalists could be left behind as technology advanced. "Our readers are outrunning us," one investigative reporter wrote, noting that personal computers were increasingly available to the public (Garrison, 1995, p. x). A survey found that almost half of journalists "often or sometimes felt poorly prepared to cover a story well," and wanted more professional training (American Journalism Review, 1993). CAR advocates feared that journalists were not prepared for the future, and that they needed more training in "social science methods, including statistical analysis" (Davenport, Pico & DeFleur, 2002, p. 20). Precision journalism and CAR also both appealed to journalists who sought more autonomy in their work. By doing their own analysis, reporters did not need to be "dependent on nameless and hard-to-find bureaucrats to analyze and disseminate public data at their own speed or discretion" (Garrison, 1995, p. 8). Journalists were less dependent on the usual suspects, and less dependent on their information technologist co-workers. Technological expertise had effectively moved "from the computer nerd in the corner to the center of the newsroom" (Ciotta, 1996, p. 34).

There were also several differences between precision journalism and CAR. Precision journalism aimed to make reporting more like social science. Meyer wanted journalists to begin their reporting processes with "intensive and systematic fact-finding efforts" instead of from "a base of personal conviction, ideology, or conventional wisdom" (1973, p. 13). CAR, on the other hand, was less about reporting styles and more about the technology itself. It was intended to find and develop tools that could "supplement other, more traditional forms of reporting" (Garrison, 1996, p. vii). Precision journalists gathered data to test hypotheses; CAR reporters were more likely to procure data from outside sources, such as the government, or social scientists. Thus, they had "no control over how or why the observations were gathered or the manner in which they were recorded" (DeFleur, 1997, p. 203). CAR journalists also differed from precision journalists in that they used databases not just for spotting trends, but also for "powerful browsing" (p. 204)—in other words, finding a specific data point, a needle in a haystack, that could make for a good story.

CAR attracted journalists who liked to tinker. NICAR published a bimonthly newsletter called *Uplink*, in which journalists traded tips on how to incorporate the newest gadgets into their newsrooms. One article cited as the biggest obstacles to CAR's progress “unenthusiastic reporters and editors; rarely used equipment that makes it hard to find help when problems occur; and the biggest issue, time” (Banstetter and Grieco, 1992, p. 4). Other CAR journalists wrote software reviews and offered how-tos on topics like the extraction of data from a nine-track tape, which were often used by government agencies at that time. Some journalists even developed their own software. Cox Newspapers editor Elliott Jaspin, for example, created NineTrack Express, which helped reporters transfer data onto their personal computers from government tapes (Garrison, 1995, p. 229). Employees of a Kansas created a programming framework specifically designed for news organizations. Called Django, it was designed to handle “the intensive deadlines of a newsroom” (Holovaty & Willison, n.d.) by creating a user-friendly way to build databases quickly.

CAR has not just been about reporting tools. It has included other kinds of technologies as well—including word processing, email, information storage, and importantly: search. The arrival of electronic backfiles in the 1980s and 1990s allowed reporters to search past stories with increasing ease and speed. Before such backfiles existed, reporters relied to a greater degree on in-house librarians, who located physical copies of past stories upon request (Hansen, Ward, Conners, & Neuzil, 1994). Developers also created tools to help journalists sort through images and videos. The first tools in the 1970s annotated images with text. The text had to be added manually, however, which was a laborious process; annotations were also inconsistent, because people had different interpretations of what the images depicted (Rui, Huang, & Chang, 1999). In the 1990s, developers began creating search tools that sorted images based on color and shape patterns (Jain & Vailaya, 1996). A tool called WebSEEk used autonomous Web crawlers, or "spiders," to collect images from websites and categorize them based on both text and content. Images and videos were then assigned keywords based on descriptive words in their URLs and visual patterns (Smith & Chang, 1997).

Some journalists have argued that the term CAR sounds outdated. Computers are so pervasive in news-gathering now that it hardly makes sense to distinguish when they are used, “any more than we discuss ‘telephone-assisted’ or ‘interview-assisted’ reporting” (Garrison, 1995, p. xi). By 1999, 95 percent of newspapers were using computers in their reporting (Garrison, 2001). Still, many news organizations have continued to use the term. "Computer-assisted reporter" remained a job title at several news organizations, including Scripps Howard News Service and the *New York Times,* as of 2013.

Computational journalism and data journalism. The term computational journalism emerged in the early 2000s. By one definition, it is "the application of computer science to the problems of public information, knowledge, and belief, by practitioners who see their mission as outside of both commerce and government" (Stray, 2011). Computational journalism can describe other processes besides those associated with reporting, such as the monetization and archiving of news stories (Cohen, Hamilton, & Turner, 2011). It has been an evolution of sorts of CAR, which at its genesis included tools that were also not specifically identified with reporting, such as word processing, email and Web browsers, but which by the 2000s had come into common use in newsrooms.

Data journalism is a subset of computational journalism that has focused on the acquisition, analysis, and presentation of data in news stories. One data journalist has described it as having four components, not all of which were necessarily performed with each story or by a single entity: finding data, interrogating data, visualizing data, and “mashing,” or combining, data (Bradshaw, 2010). Investigations might start with the procurement of a dataset, which journalists then dig into to find stories of public interest; or journalists could start with questions they wanted to interrogate, and then search for answers in data.

Data journalism has taken various forms. Rarely have news organizations presented whole datasets. “Without people and organisations able and willing to take the open data, clean it, structure it, add metadata to it, create tools to analyse it, and tell stories from it, then the data might as well go back in the archive” (Moore, 2011). Journalists may turn data into "visualizations" or "infographics," the simplest of which have been pie charts, bar graphs, and maps. Some visualizations have been much more complex, often taking advantage of the interactive qualities of the web to allow users to scroll through, change, and select specific elements. One visualization of gun deaths used an animated graph to estimate the number of "lost years" based on the ages of people who died. Users could sort the data based on sex, age group, region and time of the deaths (Periscopic, 2013). The *New York Times* combined several visualizations, including videos, slideshows, satellite maps, and animated graphics in its award-winning "Snow Fall" feature, which told the story of skiers who were trapped in an avalanche (Branch, 2012).

Some data visualizations have taken the form of games. The *Los Angeles Times* created a game in which users tried to balance California's state budget by cutting costs or raising taxes. The CU Independent at the University of Colorado partnered with commercial research firm Prediculous on a game in which users tried to predict the outcomes of news stories, such as the Denver mayor's race or the closing level of the Dow Jones Industrial Average. The *Miami Herald* created a game called "Tallanasty," a play on the name of Florida's state capital, Tallahassee. Users played the role of Florida politicians who had to act in accordance with state laws when confronted with hypothetical ethical dilemmas.

Data journalism stories have also had few or no visual elements. Journalists in those stories have focused more on analyzing datasets and forming narratives around them than on creating visual representations. The Center for Public Integrity's "Cracking the Code" series, for example, used a line chart as its sole visual element, but described at length evidence in the data that suggested thousands of doctors had overbilled Medicare for charges adding up to at least $11 billion (Schulte & Donald, 2012).

The many forms of data journalism have indicated a "convergence of a number of fields which are significant in their own right—from investigative research and statistics to design and programming" (Bradshaw, 2010). It has also suggested a convergence of journalists and non-journalists, including computer programmers, graphic designers, and outside firms that specialize in finding data and organizing it. Groups like Hacks and Hackers have brought together journalists and programmers to solve problems. The website Openly Local compiled data from local government meetings in the UK and published it in a database-friendly format. The website ScraperWiki created a tool that allowed users an easy way to create “scrapers,” or tools that extract data from websites. One user-created scraper, for example, compiled smog readings that were posted online from monitors throughout California.

While data journalism has often involved collaboration between journalists and outside specialists like programmers and designers, journalists themselves have faced pressure to acquire data-related skills. Journalism schools began revamping their curricula in the late 2000s to add classes in subjects like computer science, social media and statistics. Arizona State University's journalism school added a Digital Media Entrepreneurship class to its curriculum in 2008. Columbia University began offering a dual master's degree in journalism and computer science in 2011.

Robot Journalism. While journalists have been enamored of technology, and have become more adept at using it, they have also worried that they might be replaced by it. The company Narrative Science has stoked those fears. The Chicago-based firm has developed algorithms that use natural language processing (NLP) to analyze news articles and replicate their writing style. NLP is a branch of computer science in which computers analyze large datasets of language and use the meaning they derive from that analysis to generate new, sometimes very human-sounding, language. The idea for Narrative Science originated at Northwestern University, where journalism and computer science students collaborated on a project called

Stats Monkey. The program took box scores and other data from baseball games and created narratives from them.

> The system can pick out the key plays and players from any baseball game. Second, the system includes a library of narrative arcs that describe the main dynamics of baseball games (as well as many other competitions): Was it a come-from-behind win? Back-and-forth the whole way? Did one team jump out in front at the beginning and then sit on its lead? (Allen, Templon, Hammond, & Birnbaum, 2009)

The class experiment became a business. Narrative Science developed an iPhone app called GameChanger that could instantly create Little League game recaps, which clients (such as the Little Leaguers' fawning parents) could post online. Narrative Science also expanded beyond sports. Its clients have included *Forbes*, which has used a tool cheekily called "Quill" to generate stories on finance—which, like sports, lent itself well to robot journalism due to its heavy reliance on statistics. Other clients have used Narrative Science software to generate top-10-type articles based on restaurant reviews. The company has also attracted interest from other industries, including retail, health care, and marketing, which have sought ways to distill mountains of data into succinct narratives for internal and external communications (Gage, 2013). The CIA has even invested in Narrative Science. As one observer noted:

> Those guys have a lot of data, and it would probably be helpful to have some of that sorted into sentences and summaries. It would be great to show you an example of that work, but obviously that's not gonna happen. (Kafka, 2013)

Journalists have been ambivalent about Narrative Science. One journalist pronounced it "pretty great and pretty creepy" (Carr, 2009). Narrative Science could help journalists by freeing them from what they have seen as grunt work: plugging in new facts to old frames, the routine news stories that are often assigned to entry-level "legmen." Freed from those repetitive tasks, more journalists could perhaps focus on more complex, important, and interesting stories. "If the threat of machine journalism ultimately makes human journalists step up their game, we'd welcome those robot overlords," (Greenfield, 2012) wrote one hopeful journalist. But others have not been so hopeful. Given the financial struggles of news organizations, robots could more likely replace journalists, not elevate them. The chairman of the Local World, a large newspaper publisher in the UK, has suggested that the industry “cannot sustain a model from the middle ages, where a single journalist goes out on a single story, comes back and writes it up” (Hollander, 2013). He predicted future journalists would be "harvesters" of information rather than on-the-ground reporters. Narrative Science's founders have also predicted that their tools will eventually go beyond grunt work: "higher up the journalism food chain—from commodity news to explanatory journalism and, ultimately, detailed long-form articles" (Levy, 2012). The company has predicted a computer will win a Pulitzer Prize by the year 2017.

This dissertation examines how the ways journalists have related to their sources and to emerging technology have shaped the ways they gathered information. Has their wariness of the usual suspects been strong enough to drive them to use other types of sources more, or have the obstacles to using other types of sources been too great? And have journalists seen technology as something that could help them in the sourcing process, or has it been a burden?

Chapter Outline

Chapter 2 takes a snapshot of sourcing practices in day-to-day journalism. It is largely based on interviews conducted with 20 beat journalists about the ways they gathered information for stories they had written. I argue that the reporting process for beat journalism resembles a business supply chain, and that the metaphor can help explain the rationales that guided which sources journalists chose. This chapter also explores the definition of "source" in an effort to provide a more thorough accounting of who and what shapes news content. Journalists tend not to disclose in their articles all of the sources they used, which can make such an accounting difficult. I also identify two categories of sources in addition to the usual suspects and real people: journalists, and objects.

In Chapter 3, I describe ways that journalists have tried to innovate the sourcing process. These innovations have included tools that journalists developed to help identify suitable sources other than the usual suspects. I focus in particular on the Public Insight Network, which developers intended to help journalists find real people; and Storyful, which has focused on finding videos from eyewitnesses to newsworthy events. I also discuss other types of search tools that were not created with journalists in mind, but have nonetheless become a regular part of their information gathering processes.

Chapters 4-6 describe how journalists are using these innovations during different stages of the reporting process. Chapter 4 focuses on search. I examine the ways journalists use sourcing innovations, and under what circumstances those innovations have led to sources other than the usual suspects. In particular, I identify "findability" as a determining factor. Findability determines the likelihood that real people will be contacted as sources or written about as news subjects. Findability includes the availability of contact information, as well other personal information that can help journalists learn about who they are and what they know.

Chapter 5 focuses on the vetting process. Journalists have developed techniques to assess the credibility of potential sources based on the information about them that is available online. When journalists have perceived the information available about potential sources to fit consistent profiles, those sources have been deemed more likely to be credible. This chapter also includes examples of hoaxes that succeeded in spite of the vetting processes journalists have developed.

In chapter 6, I discuss how journalists have tried to use technology to manage their relationships with sources. Gaining access to information required source management, which could include delicate negotiations and an understanding of what motivated sources to cooperate. The source management process could be particularly challenging for journalists who wanted to maintain their relationships with sources beyond a single story.

Chapter 7, the conclusion, includes an examination of which sources still fall through what sociologist Gaye Tuchman called the "news net" (1978, p. 23), in spite of innovations that journalists used to get beyond the usual suspects. I suggest that market-based forces inhibit attempts by journalists to use more diverse sources in their reporting, but that journalists themselves could do more on their own.

CHAPTER 2: SOURCES AS SUPPLIERS

Before getting into the tools that journalists have used to innovate the reporting process, I want to take a closer look at the day-to-day practices of so-called "beat" reporters. My intention is to establish a sort of baseline for sourcing practices in the digital age. Although prior studies have suggested that the usual suspects have played a dominant role in the reporting process, interviewing beat journalists about stories they had reported could reveal whether that was true.

The interviews I conducted suggested that the journalist-source relationship often resembles one of "exchange" (McManus, 1994), at least when examined at the story level. The relationship involves discrete transactions of information among journalists and sources for specific stories intended for specific audiences. Sources most often act as suppliers of information, while journalists act as buyers.

Considering that the reporting process usually involves multiple interactions with multiple sources, a single story requires multiple exchanges. The set of exchanges resembles a model most often used in business: the supply chain. In this chapter, I will examine the supply chain's similarities to the reporting process and explain how business literature on buyer-supplier relationships can yield insights into journalist-source relationships.

I will also explain how applying the supply chain metaphor to the news gathering process can lead to a clearer definition of the term "source," as well as reveal additional types of sources beyond the usual suspects and real people.

Finally, referring to the interview data, I will examine how particular types of sources influenced which stories were covered and how they were covered.

The Supply Chain Metaphor

A supply chain is a collection of processes involving the conversion of raw materials into finished products. Supply chains have most often described the manufacturing of physical goods, but some definitions have also included flows of services, money, and information. Supply chains may be of varying lengths and complexities. The supply chain for a self-employed woodcarver, for example, could be quite short: he buys wood from a supplier, shapes the wood into toys, and sells them direct to customers.

Wood Supplier <-> Woodcarver <-> Customer

This is an example of a "direct supply chain," which involves only three parties. "Extended supply chains," however, can include suppliers of suppliers and customers of customers. In the case of the woodcarver, his supplier may not have been the one to cut down the trees, or grow them in the first place. So the upstream portion of the extended supply chain may look more like this:

Landowner <-> Timber Buyer <-> Wood Mill <-> Woodcarver

The extended supply chain likely also has additional parties on the downstream side. The woodcarver could sell his products to distributors, such as toy stores. In that case, the extended supply chain might look like this:

Landowner<->Timber Buyer<->Wood Mill<->Woodcarver<->Toy Store<->Customer

"Ultimate" supply chains are more complicated still because they include other organizations that provide support services, such as funding and market research, at various points along the chain (Mentzer et al, 2001). These support services are sometimes included in a broader concept called the value chain, which includes the supply chain as well as other activities "that are performed to design, produce, market, deliver, and support" (Porter, 1985, p. 36) particular products and services.

Understanding how the supply chain operates is useful for addressing any problems that might arise. Links in the woodcarver's chain may break if, for example, the wood mill's employees go on strike, or the toy store closes. Systems scientist Jay W. Forrester (1958) was among the first advocates of a more thorough understanding of the interactions among parties in supply chains. He argued that managers needed to use more powerful computers, data collection, and rewards systems to remove uncertainty in supply chains:

> The task of management is to interrelate the flows of information, materials, manpower, money, and capital equipment so as to achieve a higher standard of living, stability of employment, profit to the owners, and rewards appropriate to the success of the managers. (p. 38)

The concept Forrester described later became known as "supply chain management." Keith Oliver, a vice president of the consulting firm Booz Allen Hamilton, used the term to argue that U.S. companies were losing ground to Japanese firms that better managed their inventory (Kransdorff, 1982). Toyota and other Japanese manufacturers had developed a system called kanban, also known as "just-in-time" production, which allowed them to keep inventory levels low, which reduced waste and storage costs. U.S. companies had justified keeping extra inventory to respond to unpredictable customer demand. Oliver recommended instead that companies keep less inventory, but lengthen their delivery times. While it would make some customers unhappy, Oliver said companies could offer more reliable delivery estimates and cut costs.

Although the supply chain concept has most often been applied to manufacturing processes, it has also been used to describe the gathering and processing of information. Information supply chains include not only information sharing from suppliers to end-users, but also feedback from end-users that can allow suppliers to better meet demand (Gunasekaran, Patel, & Tirtiroglu, 2001). Both kinds of supply chains have similar goals: namely, to maximize efficiency and respond to problems reported by customers (Sun & Yen, 2005). Booz Allen Hamilton developed the concept of "Efficient Consumer Response" for the grocery industry, which emphasized information flows in both directions along the supply chain. The term "information supply chain" has been used to describe processes that supported product-based supply chains (Legner & Schemm, 2008). The information supply chain should be "fast, accessible at appropriate levels to all users, operate reliably and be easy enough to use so that all employees and other 'customers' make extensive use of it" (Walsh & Koumpis, 1998).

The Source Supply Chain

Some scholars have used metaphors like the supply chain to describe the news reporting process. Journalist and sociologist Mark Fishman (1980) also likened news gathering to manufacturing. Communications scholar Zvi Reich described reporters as links on a "news chain" (2009, p. 19). Media economics literature has often characterized sources as suppliers of information who were engaged in an "exchange" with reporters (Chibnall, 1977; McManus, 1994; Tunstall, 1971). As described in chapter 1, communications scholar Oscar Gandy (1982) created the term "information subsidies" to describe materials that public relations professionals provided to journalists in a format that lowered the "cost" of news gathering. Press releases that were written in an inverted pyramid style, for example, were similar enough to journalistic writing that they required little, if any, rewriting before being published in news articles.[2]

Those characterizations of the journalist-source relationship differ from others that are not market-based. Gans (1979), for instance, described the relationship as a "dance," a "tug-of-war," or even a "symbiotic relationship of mutual

[2] Publishing unedited press releases as news has generally been frowned upon. Still, journalists have sometimes admitted using portions of press releases word-for-word. Such practices are rarely acknowledged in news articles themselves. The website Churnalism.com was developed to track such occurrences, particularly in the British press. Visitors can enter URLs of news articles, and the website checks to see whether they contain text that was lifted directly from press releases.

obligations" (p. 133). Communications scholar Joseph Turow (1984) called the relationship one of "resource dependence." These characterizations, I believe, are more descriptive of the journalist-source relationship in a general, ongoing sense. Journalists I interviewed described having dinner or drinks with sources to get to know them better, for example—without needing information from them for a particular story. One journalist mentioned having daily conversations with a particular source just to "check in"—and many such interactions did not result in stories.

The supply chain emerged as an appropriate metaphor during the interviews I conducted with beat journalists. The ways journalists described their reporting processes suggested that many of their interactions with sources were specific and goal-oriented. Journalists sought specific information, and they wanted to get that information as efficiently as possible. The "exchange" was particularly clear in articles that were recurring features. One journalist, Abe, described a feature to which he was assigned that was always based at a local restaurant.

> Abe: The interview takes about 10 minutes or so. So it's short. Characters, questions are formulaic. Who are you, why are you there, what are you talking about, what are you eating.
> Katherine: So you tend to follow that pattern every time, those questions?
> Abe: That's what the column is. (personal communication, September 10, 2013)

Relationships based on exchange suggest a journalist-source relationship that resembles one of buyers and suppliers. The source supply chain for Abe's story looked something like this:

Editor<->Restaurant Chef/Owner<->Manager<->Patrons<->Abe<->Audience

In the source supply chain, the first link is the "trigger" (Palmer, 2013)—the person or thing that instigates the story. In this case, the story was a regular feature that Abe's editor happened to assign to him that week. The next step was Abe's phone call to the restaurant in order to get permission to interview people there. After getting permission from the restaurant's chef/owner, Abe visited the restaurant, interviewed the manager, and interviewed some patrons. Abe then wrote his story, and his audience read it. The source supply chain can even continue beyond audiences, which "pick and choose stories they want to attend to and believe, and choose from a seemingly endless supply of information to assemble their own stories" (Bird & Dardenne, 1988, p. 212). Audiences may also interact with other people in their "social set" (Lippmann, 1922, p. 50) about the stories they read, potentially shaping public opinion.

Power Dynamics in the Supply Chain

Many factors can determine whether buyers or suppliers exert more power in the supply chain. Business scholars including Michael Porter (1985) have studied these factors, which led some firms to have a "competitive advantage" in their industries. Porter's findings can also help illuminate the influence of power along the source supply chain, in which journalists play the role of buyers, and sources are suppliers.

Typically, the more powerful one in the relationship is the one that is more concentrated, consolidated or centralized. Suppliers can hold more power in industries that are dominated by a few large firms, because they can be more selective about their buyers. "The firm should sell to the most favorable buyers possible, to the extent that it has any choice" (Porter, 1980, p. 109). The oil crisis of 1973, for example, occurred after OPEC countries, along with other oil producers in the Middle East, announced an embargo against the U.S. because of its support of Israel. Because of OPEC's dominance in oil production, it held more power in the supplier-buyer relationship. The embargo had a drastic effect in the U.S., leading to price controls and rationing.

Similarly, news sources have been more powerful when they held information that journalists were unlikely to get from any other source. When political scandals or other "gee whiz" stories have emerged, news organizations have competed for sources who have been at the center of those stories. Television networks have become so dogged in their pursuit of these sources that paying sources for exclusive interviews, a once frowned-upon practice, has become commonplace (Stelter & Carter, 2013). (The networks, for their part, have argued that they have not actually committed "checkbook journalism" because they did not pay for interviews themselves, but rather reimbursed sources for travel or other expenses.) Some journalists I interviewed indicated that they enjoyed privileged status with some sources who gave them exclusives, or notified them of stories a day earlier than other media. In exchange for the privileged access, journalists could feel obligated to cover those stories even if they otherwise might not have, or give those sources a plug. One journalist I interviewed, Brenda, said that she made it a point to include the name of an attorney in a particular article about a dog custody lawsuit. The attorney had tipped off Brenda about the suit.

> Because she handed it to us exclusively, we give the favor by putting her name in the story. Because that's how, it's like free press, and you know, we're like her publicist, if you will. Because people are like, "oh, she does dog lawsuits," and they call her. "I have a situation with my dog." (personal communication, September 13, 2013)

Brenda could have just as easily found the lawsuit on her own by searching court records, as was part of her regular routine, or "rounds" (Fishman, 1980). Since the attorney gave her the tip, however, Brenda likely would not have found the lawsuit until the following day, when her competitors had access to it as well.

Suppliers are also powerful when there are few substitutes available for their goods. Substitutes are not identical to goods that buyers get from their regular suppliers, but are deemed to be acceptable replacements. Coca-Cola and Pepsi are substitute goods, at least for most consumers. Because they are willing to accept one as a substitute for the other, they have more power in the buyer-supplier relationship. They may choose to buy whichever one is on sale, or not bat an eyelash when they ask for a Coke at their favorite restaurant and are asked "is Pepsi okay?" Consumers who do not see Coca-Cola and Pepsi as substitutes are more likely to be disappointed when they try to find their brand but cannot.

Sources have also been more powerful when journalists could not find substitutes for them. Andrea, who usually covered politics, said she often turned to a small "crew" of commentators as independent experts. Many of them were former campaign operatives or political science professors. Such experts had their pick of press opportunities around election time, because the demand for political analysis was so high. Since her city, like most in the U.S., was heavily Democratic, it was especially difficult for Andrea to find Republican-leaning commentators. "Sometimes I just look to see who's been quoted recently, seems like a good interview. You call them, get to know them" (personal communication, September 21, 2013) she said.

Suppliers have had more power if so-called "switching costs" were high. Switching costs are investments that buyers stand to lose if they change to a different provider. Going to a new grocery store, for example, has few switching costs, except perhaps the inconvenience of having to learn a new store layout. Switching to a new health insurance provider, however, may require giving up doctors, time to research the differences in benefits, and transferring health records. Buyers who face high switching costs are less likely to change suppliers.

One journalist I interviewed described a story that turned out not to be as interested as she had hoped, but wrote it anyway because the switching costs would have been too high. She was covering a campaign event for a local politician that was held in a highly visible location. Her editor believed that because it was so public, and the politician was somewhat of a polarizing figure, "the potential for some sort of chaos was high. So you know, I went. No particular chaos ensued, but I had to write"[3] (personal communication, September 1, 2013). In other words, the story turned out not to be as interesting as she or her editor had hoped. Still, Sabrina had

[3] Stories that are covered based on the anticipation of possible "chaos" reflect what some journalists have called an "assassination mentality": a fear that if chaos were to break out and they were not around to cover it, they would have to rely on reports from wire services or competitors instead. See Peters (1973), p. 7-8.

invested significant time in covering it, and by the time the event was over, she would have had little time to find a different story to write for the following day's newspaper.

Suppliers may increase their power through vertical integration. This essentially means that suppliers take over more processes involved in converting raw materials into finished products, rather than contract with outside firms. Vertical integration can save money and lower risks inherent to dealing with outside parties. Potential downsides to vertical integration include a loss of flexibility and cohesion within an organization. Google's acquisition of Motorola Mobility in 2012 was one example of a vertical integration move. Prior to the acquisition, Google made software for mobile phones—Android—but it had not been in the business of selling the phones themselves. (As has been true of many attempts at vertical integration, this one did not last. Google sold Motorola to the Chinese smartphone manufacturer Lenovo in 2014.)

News sources may also seek opportunities for vertical integration. They may, for instance, seek to circumvent journalists by becoming their own publishers. Digital media have made it easier for sources to "go direct" to the public, by posting information on their own websites and on social media. President Obama, in particular, has been criticized for avoiding journalists in favor of "releasing a sanitized visual record of his activities through official photographs and videos, at the expense of independent journalistic access" (Lyon, 2013, p. A39). President Obama has conducted live chats on Google Hangouts and Reddit. The chats allowed him to choose a few questions he wanted to answer among thousands that were submitted. The Reddit chat, which lasted 30 minutes, included some serious questions about student loan debt and corruption in politics. But he also answered frivolous questions about the White House's beer recipe and his favorite basketball player. Journalists have argued that sitting down on live television "at least has the virtue of forcing the candidate to engage repeatedly and in real time with a single, persistent questioner" (Oremus, 2012). Other reporters argued that the White House press corps had a deeper level of policy knowledge than most members of the public, and would therefore be more likely to ask tough questions.

Buyers can also exert power over suppliers. In many cases, this means inverting the types of scenarios just described. Just as suppliers held more power when there were few of them relative to buyers, a small number of buyers can have more power over suppliers. Similarly, journalists exerted more power over sources when they had many choices. Rick said he was covering a story about a botanic garden that had ignited the passions of people connected to it. Once he started making calls to potential sources, many people called him who wanted to talk. "Sometimes, when you shake the tree, you get people to call you" (personal communication, August 30, 2013). Since so many of them called, Rick could be selective about which ones he actually used in his story.

Buyers could be more powerful when substitute sources were available. Some journalists purposely called multiple people who they anticipated could fill similar roles in their stories. The goal was to have many choices. For instance, they might call an organization's spokesperson as well as its CEO, multiple members of a political body, or many people who live on a block where a terrible accident occurred. Perhaps the most substitutable of all sources have been real people whom journalists have interviewed for man-on-the-street segments. It turns out, however, that the usual suspects have not been viable substitutes for real people in this role. One journalist recalled his experience at a local mall where he was conducting man-on-the-street interviews about holiday shopping. One man he approached for an interview turned out to be a state government official. Although the official was willing to talk about his experience with holiday shopping, the journalist decided not to interview him. In another example, a reporter with NBC's *Today* was ridiculed after he failed to recognize that one of the "tourists" he interviewed for a man-on-the-street segment during the 2012 Summer Olympics was boxer (and former Olympian) Evander Holyfield (Grenoble, 2012). In both cases, the usual suspects were willing to be interviewed, and offered the sort of experiential knowledge that journalists wanted. However, journalists and critics considered the usual suspects to be miscast.

Buyers could be more powerful than suppliers when switching costs were low. Frank, who wrote a regular human-interest column, said he often had to switch subjects at the last minute, when a source got cold feet, or scheduling was too difficult. Because it had happened to him a few times, Frank tried to have backups in mind. On one such occasion when he had to switch stories, Frank realized that he happened to be in the same neighborhood where one of his fallback sources lived. Frank knew that switching sources would be easy, if his backup were available right away. Fortunately, the source answered his phone:

> I said, can I come over? Because in my head I'm thinking: hmm, if I get this guy today, then I can write him up for today and then save this other guy for

> next week, when I can verify him more and stuff. You know, there's a juggling process. (personal communication, September 9, 2013)

Buyers, like suppliers, may seek opportunities for vertical integration. Some news organizations, for instance, have had exclusive contracts with political analysts in order to keep those sources from competitors. Political commentator George Will, for example, had been a contributor ABC for more than three decades before moving to Fox News in 2013. Journalists have also tried to negotiate with sources on individual stories to keep them exclusive to their publications. Lana explained that this was general practice among the local government sources she used:

> It's just the honor among thieves sort of theory. People work together when you have an exclusive. And you know, it's very bad form for one press person to like, rat you out, rat out what you're working on to another reporter. (personal communication, September 3, 2013)

Lana and other journalists I interviewed said it was part of their regular practice to ask sources whom they interviewed for big stories whether they had been contacted by other journalists. If no one else had contacted them yet, sources were asked to keep journalists apprised if they subsequently heard that their competitors were working on similar stories.

The various factors that can affect relationships in the source supply chain show that neither journalists nor sources have consistent competitive advantage. Relationships are fluid depending on the identities of sources, their relationships to others in their field, and the stories involved. By examining supply chains for individual stories, however, we can better understand who and what these sources are, as well as how they influence news stories.

Identifying Sources

The supply chain metaphor is a useful means for identifying what are often complicated relationships between suppliers and buyers. It describes a series of steps during the production process, many of which are hidden to the product's end users. The source supply chain likewise includes many steps in the reporting process that are not visible to news audiences. Interviewing journalists about their news gathering processes can shed light on what those steps are and which suppliers, or sources, are involved.

Interviewing Journalists

I interviewed 20 beat journalists about the processes they used to gather information for stories they had recently written. We discussed five stories each, for a total of 100 stories. The interviews followed a model similar to one developed by media scholar Zvi Reich (2009) called the "reconstruction interview," in which journalists provided "focused accounts on concrete actions they have taken on concrete items" (2009, p. 31). Journalism scholar Angela Phillips (2010b) also used a method similar to that of the reconstruction interview. Her semi-structured interviews with British journalists were based on stories that had been randomly selected from those they had written. She asked journalists about how the stories were instigated and about how they gathered information.

My model differed from Reich's reconstruction interview in a few ways. One major difference was that Reich took several steps to ensure that journalists could maintain the confidentiality of their sources. Journalists he had consulted prior to his project had indicated they would be reluctant to participate otherwise. He thus conducted his interviews with a screen separating him from journalists. The journalists could see the articles they were discussing, but he could not. The journalists also identified their sources only by general descriptions, not by name.

Most of the journalists I interviewed did not express similar concerns about maintaining source confidentiality. I did agree to keep the journalists' names and their publications' names confidential. I also agreed not to quote any text from their articles in my research, since a quick Google search could easily reveal who they were. Some journalists whom I contacted for interviews did reject me outright due to concerns about source confidentiality. I got the impression that they would not have been satisfied with any further confidentiality protections I could have taken; they did not want to discuss their sources at all. Occasionally, journalists who agreed to be interviewed did have reservations about identifying some of their sources. In those cases, I asked if they would instead provide general descriptions of who those sources were in order to assist me with my coding. Those journalists agreed.

The journalists I interviewed all worked for daily newspapers in a large U.S. city. They were all "metro" journalists, meaning that they wrote local, rather than national or international, news. Some, but not all of them, had beats that focused on particular subjects or regions. That is, some journalists tended to write about politics, or crime, or transportation, or another subject. Other journalists had beats that focused on a particular geographic area. Others were general assignment reporters. Even journalists who had beats, however, often wrote other types of articles as well. The journalists all worked in the same large U.S. city, and wrote local news on a fairly regular basis. I defined "fairly regular" as writing a minimum of five articles in the month preceding our interviews. Journalists who write fairly regularly are often described as "beat reporters," and I will periodically describe them as such in this dissertation, although not all of the reporters I interviewed would actually claim to have a beat. Some of them did, on topics such as politics, courts, or crime, or in particular geographic areas. Other journalists I interviewed were "general assignment reporters," meaning that they did not have beats. Still, they often had what could be described as a specialty—they had a tendency to cover particular topics more than others. This could be because they once had a beat on a given topic, so they were, as journalists say, "well sourced"—the relationships and knowledge that they had developed on that beat helped them access stories that might be unavailable to other journalists. Some general assignment reporters might develop specialties just because they had a particular interest in a topic, so they sought to cover it often. Even journalists who had beats sometimes deviated from them, such as when they covered for colleagues who were out, or when they were granted permission to take on special projects.

I chose journalists who had written at least five articles in the month preceding our interview. There were two reasons for this. The first was that I wanted to understand how journalists gathered information for the majority of news stories that appeared in local daily newspapers. Although deeply investigative stories can attract a lot of attention, they are far less common than daily stories about the day-to-day workings of government agencies or profiles of local socialites. The emphasis on journalists who wrote fairly often was in the interest of studying reporting practices that were most representative of daily journalism. The second reason I chose journalists who wrote frequently was in the interest of discussing stories that they could recall easily. Since I wanted to discuss five stories with each journalist, going back further than a month could start to tax their memories.

The stories we discussed were the five most recently written by each journalist prior to our interviews, according to their newspapers' online archives. I used only single-bylined stories, based on the premise that journalists would be able to describe their reporting techniques in more detail when they were the sole authors. However, I learned from some journalists I interviewed that single bylines did not always indicate that one person gathered all the information for a given story. Some journalists mentioned librarians, photographers and "runners" who assisted them with specific tasks, such as searching news clips, gathering quotes from particular sources or attending live events and writing down observations in order to help journalists add "color," or visual description, to their stories.

In each interview, I asked journalists to walk me through their information-gathering processes, as best as they could remember, in chronological order. I always began by asking them how the story originated—for instance, whether they received a press release, got a tip from a source, had a hunch about something, or got an idea from a story reported by another news organization. I then asked them to tell me what they did next, and next, and next, until they were finished gathering information. I also asked journalists whether they had tried to include other information but were unable to—for instance, if they ran out of time, or if a particular source had been contacted but was unavailable. Finally, I had them look at the content of their articles and label which information came from which of their sources.

After we finished going through their articles, I asked journalists generally about their use of social media and about their media “diet”—that is, which media they consumed on a routine basis. I also asked them whether they got back in touch with sources, either to let them know the article featuring them had been published, or to get their feedback.

Taking a dual approach to identifying their sources—that is, asking them to talk about their reporting process and then asking them to label the content of their articles—had an unexpected benefit. It turned out that, even for articles that journalists had recently written, they sometimes struggled to recall all of the sources they used. Having them label their articles after describing their processes often helped jog their memories. Several journalists would come to a particular paragraph in their stories, say, "oh, yeah," and add a new source to the list of those they had already mentioned.

Defining "Source"

Asking journalists to walk through their reporting processes and labeling the sources of specific text in their articles made it clear that the term "source" could include more than just the usual suspects and real people. I am using the term "source" to mean *a person or thing that informs a given story*. The definition may seem basic, but as Entman noted on the concept of framing, scholars can use term to mean slightly different things, "with much left to an assumed tacit understanding of reader and researcher" (1993, p. 52), leading to confusion and hampering the potential to build upon prior research. My definition of source includes three important distinctions: first, not all sources have been human. Second, sources are not the same as subjects, although the two categories often overlap. Finally, sources may contribute to reporting even if they have not been quoted or named in particular articles.

Many definitions of "source" in communications research have not included non-humans. Gans suggested that sources were "actors whom journalists observe or interview, including interviewees who appear on the air or who are quoted in magazine articles, and those who only supply background information or story suggestions" (1979, p. 80). Berkowitz also limited his definition to humans: "people who reporters turn to for their information" (2009, p. 102). Sigal considered sources to be "individuals or organizations," while he called non-human sources and events "channels of information" (1973, p. 121). Other scholars including Manovich (2002) and Reich (2005) have defined "channel" as something else: a means through which journalists and sources communicate, such as over the phone, via email, or in person. And some researchers have categorized documents separately from human sources (Gans, 1979; Martin, 1988).

Prior research has not always made clear the distinction between sources and subjects. It is an important distinction to make. Sources inform stories, while subjects are actors within those stories (Pritchard, 2000, p. 39-40). Sources may also be actors in stories, but that is not always the case. Crime and courts stories, for example, have often featured subjects who were not sources. This is because lawyers often advise their clients not to speak to journalists before their cases are resolved, due to concerns that their statements to the press may affect the outcomes of those cases. Social media users have sometimes been shocked to find themselves reported on as news subjects without any attempts by journalists to contact them directly (boyd and Heer, 2006; Hess, 2014). Likewise, many sources are not subjects. They provide journalists with information, but their names do not end up in stories. Unfortunately, content analyses do a poor job distinguishing sources from subjects, partly because journalists themselves have not always distinguished between them in their writing.

Many prior studies have not considered sources that were not identified in news articles. "Strictly speaking, of course, sources are not observable—reporters often talk to people they do not cite" (Hallin, Manoff, & Weddle, 1993, p. 765). Research on sourcing has often taken the form of content analysis, which, by focusing on texts, leaves out other sources journalists have consulted but not attributed. Some content analyses have even found that news articles could have zero sources (Pew Research Center Project for Excellence in Journalism, 2004). *Zero* *sources*? The very idea defies logic—all information in news articles comes from somewhere. Journalists may not identify the "where" for several reasons.

I realize that, by defining source this way, I may only add to the confusion over the term. I considered using a different word. However, all of the alternatives I considered were problematic. The word "informant" connotes someone who is acting surreptitiously. "Supplier" seemed to be appropriate, considering that I have adopted the supply chain as a metaphor for the reporting process. However, the –er suffix on the word seemed to suggest agency, which source objects do not have. Sociologist Bruno Latour's (2005) "actant" was another tempting choice. Actants, as defined in Latour's actor-network theory, may be human or non-human, just as I argue sources may be. However, using a broad theory like ANT to describe such a specific interaction between journalists and sources seemed like using a sledgehammer to crack a nut. My definition of source is similar enough to others that I hope confusion will be minor.

Hidden Sources

The tendency of journalists not to cite all of their sources in their published work makes it difficult for news audiences to know exactly which information came from where (Carlson, 2009; Manning, 2001). Audiences therefore must trust the abilities of journalists to judge the credibility of their sources (Mencher, 2010). If they include unattributed information in their stories that turns out not to be credible, journalists compromise their own credibility (Reuters, n.d.; Rosen, 2005).

If false information has been attributed to named sources, however, and particularly if they are public figures, those sources share at least some of the blame (Tuchman, 1972).

Clear attribution of all sources, then, would seem to be the best approach for journalists to establish and maintain their credibility with news audiences. Still, journalists rarely attribute all of the information they publish. An experiment by ProPublica came close. In 2011, the online news site launched a tool called "Explore Sources," which allowed readers to refer to documents that journalists used to report stories. When the tool was activated, some portions of story text would become highlighted. Clicking on the highlighted text revealed excerpts of documents that confirmed the details in the stories. The first story for which "Explore Sources" was used was called "Why Can't Linda Carswell Get Her Husband's Heart Back?" (Allen, 2011). It told the story of a woman's fight against a hospital that had, unbeknownst to her, kept parts of her late husband's body following his sudden death. The story included 57 highlighted strings of text, which linked to documents such as court proceedings, medical records, laws and written communications. ProPublica used "Explore Sources" only one other time, in another investigative series involving legal disputes over medical care (Thompson & Jones, 2013).

If source transparency can help journalists deflect blame when published information turns out not to be true, why are tools like "Explore Sources" rarely used? One reason is that it takes a lot of work for journalists to show their work. ProPublica scanned all of the documents it used in its "Explore Sources" stories, and uploaded them to an online service called DocumentCloud. ProPublica also worked with developers at DocumentCloud to build an interface that made it easier for journalists to annotate their stories (Shaw, 2011). Journalists have also claimed that space limitations and a lack of reader interest preclude them from disclosing more of their sources (Phillips, 2010b). Some journalists disagree, arguing that audiences "hunger" to know more about how stories are reported (Lanson, 2000).

Journalists also have professional and personal reasons for withholding the identities of sources. Sometimes they promise anonymity in order to preserve their relationships with valuable sources who request that their identities be withheld. Journalists may also keep sources anonymous if they worry that disclosing them could harm their own reputations in the eyes of news audiences—for instance, in cases where audiences might believe those sources not to be credible. In other cases, journalists might omit the names of sources because they see them as providers of noncontroversial "common knowledge," rather than representatives of subjective viewpoints—and thus they see source identities as irrelevant.

Requested Anonymity. Journalists have granted anonymity to some sources when they deemed the information they provided to be sufficiently important. Newspapers have credited anonymous sources for helping expose government scandals like the Pentagon Papers and Watergate. Promising sources confidentiality, some journalists have argued, may the only way that some potential whistleblowers will talk (Sullivan, 2013). In the case of Watergate whistleblower Mark Felt, *Washington Post* reporter Bob Woodward had to not only promise confidentiality, but also agree to an intricate and circuitous process to travel to their in-person meetings in order to thwart possible surveillance (Woodward, 2005).

Journalists have also agreed to conceal the identities of sources in order to protect them from negative repercussions. Government whistleblowers have faced prosecution under the Espionage Act and other laws for leaking information. Chelsea Manning was sentenced to 35 years in prison for supplying government data to WikiLeaks. Edward Snowden, who leaked data from the National Security Administration to the *Guardian* and other news organizations, accepted an asylum offer from Russia in order to avoid prosecution in the U.S. Advocates for whistleblowers have claimed that prosecution became especially draconian under the Obama administration. Former *Washington Post* Executive Editor Leonard Downie Jr. called the administration's efforts to stop leaks "the most aggressive I've seen since the Nixon administration" (2013, p. 3).

Journalists may also grant sources anonymity if the information they provide is not important at all—but rather, utterly trivial. Examples include sources who are asked for their opinions on banal topics, such as during man-on-the-street interviews. One journalist I interviewed, Sabrina, described one such instance. She interviewed a woman who attended a rally for a political candidate. Later, the woman approached Sabrina to ask her not to publish her name. The woman was worried about what her employer might think of her association with the candidate. According to Sabrina:

> I'm not obligated at that point not to use her name, but I was like, all right, I just don't feel like dealing with it, it's a really short story… So I ended up not using her name. I just refer to her as—I think I described her a little bit, but that got reduced [by editors] to "one said." (personal communication, September 1, 2013)

If sources must remain anonymous, some news organizations have insisted that journalists try to describe them as much as possible. NPR's ethics guidelines have said that journalists should "press [sources] hard for as detailed a description as possible of who they are and their motivation (if any)." Media ethicist David Boeyink (1990) has argued that such descriptions add context that can help audiences evaluate the credibility of sources as well as the validity of reasons for keeping their identities hidden. However, journalists have found it difficult to provide enough information to help audiences make that assessment without revealing source identities (Stenvall, 2008). Being able to at least convey that an anonymous source is powerful can confer status upon journalists as connected players in their profession (Carlson, 2010).

The conditions under which journalists honor source requests for anonymity have varied. For "inexperienced reporters, those covering competitive beats and journalists chasing mega-stories" (Shepard, 1994), anonymity may be a "necessary evil" (Rainey, 2009) in order to get stories. Journalists in those cases have found themselves in a relatively weak position to compel sources to go on the record. If journalists balk at a source's insistence upon anonymity, they risk being beaten by colleagues at rival news organizations who are more permissive.

The practice of anonymous sourcing peaked in the 1960s and 1970s, when roughly half of front-page stories included references to them (Duffy & Williams, 2011). Another study of "straight news" stories in 1975 found that 36 percent of them contained "veiled attributions," or references to anonymous sources such as "officials" or "spokesmen" (Culbertson, 1975). A 2008 study found that roughly 25 percent of front-page newspaper stories in the *New York Times* and *Washington Post* included anonymous sources. Some studies have suggested that anonymous sources were more prevalent in television news. Researchers found that 55 percent of stories sampled from CBS, ABC, and NBC news programs in 1982 contained at least one anonymous quote (Wulfemeyer & McFadden, 1986). A similar study of the magazines *Time* and *Newsweek* found that anonymous sources were quoted in 81 percent of news stories (Wulfemeyer, 1985).

Policies for appropriate uses of anonymous sources have varied and have been difficult to enforce. Professional codes of ethics and journalism textbooks offer only vague guidance (Boeyink, 1990), although professional associations have tried recently to be more specific (Duffy, 2010). The Society of Professional Journalists' Code of Ethics, which was last updated in 1996, has indicated that reporters should "identify sources whenever feasible," and "always question sources' motives before promising anonymity." The *New York Times*' policy on anonymous sources has specified that they should be used as "a last resort when the story is of compelling public interest and the information is not available any other way." But in 2009, the newspaper's then-ombudsman found that the policy was routinely ignored (Hoyt, 2009). The *Washington Post*'s ombudsman also found that policies about anonymous sources were applied inconsistently and that reporters were confused about what the policies actually were (Alexander, 2009). Points of confusion included what it meant for sources to be "off the record" compared to "on background," terms that have appeared not to have standard definitions among reporters or sources (Ashcroft, 1997; Shepard, 1994).[4]

Some journalists and media critics have argued that anonymity is granted far too often, and that the practice has put news organizations at risk. *USA Today's* founder famously decried the use of anonymous sources as the "root of evil in journalism" (Neuharth, 2004), arguing that news organizations risked publishing half-truths or outright lies. Those lies could come from journalists who were hungry for scoops and accolades, and thus failed to apply the proper scrutiny to scandalous claims—or journalists could fabricate their own claims. *Washington Post* reporter Janet Cooke returned her 1980 Pulitzer Prize after admitting that the subject of her story, an eight-year-old heroin addict she called "Jimmy," did not exist. Jayson Blair had been praised as a rising star at the *New York Times* before resigning in disgrace for "frequent acts of journalistic fraud" (Barry, Barstow, Glater, Liptak, & Steinberg, 2003), including fabricating sources and plagiarizing other reporters.

Anonymous sources have not just posed risks to the reputations of news organizations—they have also been hurt financially. Five news organizations paid a total of $1.6 million to settle with nuclear scientist Wen Ho Lee after they published accusations from anonymous government sources that he was a spy. The news organizations largely stood behind their stories, saying that they decided to settle the case rather than reveal their sources. One study suggested, however, that granting anonymity to Lee's accusers left journalists vulnerable to manipulation (Zhang & Cameron, 2003).

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[4] In addition to the cited texts, my interviews with reporters also revealed that these terms meant different things to different people.

Despite scandals involving the use of anonymous sources, news audiences have supported their use—at times. One study found that, although news audiences were generally wary of unnamed sources, 63 percent of them believed that "veiled attribution" was necessary to protect whistleblowers (Culbertson & Somerick, 1976). Subsequent studies suggested that news audiences did not necessarily see anonymous sources as less credible than named sources (Duffy, 2010; Fedler & Counts, 1981; Riffe, 1980; Smith, 2007).

Unrequested Anonymity. Journalists have also hidden the identities of sources even if the sources themselves did not request it. One reason is that journalists have wanted to prevent their competitors from using the same sources. Journalists may also avoid identifying sources out of concern that doing so might make them look bad to news audiences. There are several types of sources that fit this description: publicity-seeking people, especially those who are seeking to profit financially from their news exposure; sources that are seen as less than credible; sources who do not actually exist, also known as "straw men"; and professional rivals who got the "scoop" first.

Journalists may avoid revealing sources they deem particularly valuable in order to prevent competitors from using them as well. Finding good sources is "sacred knowledge, the secret ability of the newsman which differentiates him from other people" (Tuchman, 1972, p. 672). A well-sourced journalist has a competitive edge over his rivals, because he has access to information that others lack. Some journalists considered their sources to be so sacred that they declined to be interviewed for this study, despite assurances that their and their sources' identities would be kept confidential.

Publicity-seeking people may not be identified in news stories. Although they want publicity for particular causes, they may not want their names associated with those causes. As communications scholar Oscar Gandy wrote, a source can get greater value from media exposure "to the extent that the source can disguise the promotional, partisan, self-interested quality of the information" (1982, p. 14). A politician, for instance, may release damaging information about a rival, but not want it to appear that it was part of a smear campaign. Journalists have often been happy to oblige, because publishing self-interested information from sources does not burnish their image, either. They also want to encourage helpful sources to keep returning with other tips (Strentz, 1989, p. 106). The dog lawsuit story mentioned earlier in this chapter is one example. Brenda did not make it clear in her article that the attorney in the case tipped her off about the lawsuit, although a reader might make such an inference.

Journalists have also been reluctant to reveal sources if they believed that their audiences would see them as less than credible. Sabrina revealed in my interview with her that she used Wikipedia as a source in one of her stories. She searched an entry about the origins of a particular holiday. "I am embarrassed to confess that," she said. "That's a very risky thing to do. It's not usually a good idea. But I was very rushed, and fortunately, no one has told me I'm wrong!" (personal communication, September 1, 2013).

Journalists sometimes have not identified, or identified only vaguely, sources that they have used as straw men. Fox News came under fire in the documentary "Outfoxed" for using straw men during interviews. The film included a montage of footage in which hosts repeatedly used the phrase "some people say" to discredit the viewpoints of their interviewees. The documentarians argued that the "some people" cited by the hosts may not have existed at all, but rather served as fictional stand-ins for viewpoints that the hosts themselves wished to express—but did not in order to appear "fair and balanced," according to the network's slogan (Greenwald, 2004).

Fox News has not been alone in its use of straw men. A *New York Times* article on a program that allowed air passengers to apply for expedited "trusted traveler" status at airport customs referenced "some people" who said they had "no idea why they were rejected, while others have been denied based on minor incidents with law enforcement years ago" (Stellin, 2013). A *Washington Post* article about the mortgage interest tax deduction pitted straw men against straw men:

> Some people say the policy should be changed because it doesn't really encourage homeownership as it's supposed to. Others say the government shouldn't be encouraging homeownership anyway. Some people say the government can't keep giving out such a big tax break when it faces huge deficits. Others say the policy isn't giving enough of a tax break to lower-income families. (Rexrode, 2011)

One guidebook to NPR reporting practices included an endorsement of using straw men in interviews. It said that reporters who invoked straw men could be confrontational without sounding like they were the ones doing the confronting.

> You are converting the conversation between yourself and the mayor into a conversation between the mayor and her nastiest critics on the City Council, or on the local op-ed pages. You remain a neutral in the dispute, but you

> present questions in the personae of other people who are not. (Siegel, 1992, p. 44)

By not identifying straw men, or even clarifying whether they actually exist, news audiences received no information to evaluate the validity of the arguments the journalists presented. A politician's "critic" might be a rival politician who hoped to unseat him in the next election, a random voter, a random non-voter, an advocate of a particular cause the politician has failed to support, or any number of other people who had axes to grind.

Finally, journalists have withheld the identities of sources in order to hide the fact that their story ideas originated in other media. Journalists are voracious consumers of media, so it is no surprise that they often get ideas from their professional rivals. However, journalists have been loath to credit their rivals when they have followed their leads. While taking ideas and even whole stories from each other was a practice that pre-dated online news, Phillips (2010b) found that it accelerated in the digital age, as competition intensified and lifting content became as simple as hitting a few keystrokes.

I similarly found in my interviews with journalists that they used each other's work as source material all the time, although that was rarely acknowledged in what they published. Journalists did acknowledge those sources during our interviews. Rick said it was "kind of embarrassing" (personal communication, August 30, 2013) that one of the stories we discussed included quotes that he had lifted from a rival news organization. The story was about layoffs at a local non-profit organization. The rival news organization quoted the layoff letter that employees had received. Rick did not have the letter. He had asked his sources for it, but none had it. He said he confirmed the quotes he took with the non-profit organization to make sure they were authentic. But he did not credit the rival news organization for the information.

A rival news organization's story could spark other journalists to cover similar stories. When that happened, journalists tended to depict it as out of the ordinary. They also said that it was not something they did by choice, but rather, at the order of their editors, who wanted to match what their competitors had. Journalists also sometimes justified taking story ideas from other news organizations by saying that they took a different angle on the story, or added new information. Or, like Vanessa, they argued that they had exposed the story to a new audience:

> If it's slow, and my sources aren't really giving me stories… I'll look around at community newspapers. This story was published in [newspaper], which no one really reads. But it was buried on the website. And actually… one of my colleagues had written about this man before. (personal communication, September 16, 2013)

By mentioning that her colleague had covered the man before, Vanessa appeared to suggest another justification for not crediting the community newspaper: the story had belonged to her organization all along. Her newspaper discovered this man first, even though that had happened years ago. By not crediting the community newspaper, however, she could leave ambiguous to readers whether she had lifted the idea from the other newspaper or was just following up on a long-ago story.

In some cases, journalists justified not crediting their competitors because they were able to find similar information in multiple media sources. One journalist, Rick, said a television reporter originated a story about a politician—then the politician, newly aware of her newsworthiness, sought out other media to cover the story. In his story, Rick identified the politician as a source, but not the television reporter. In another case, Lana saw a story published by one of her competitors that was triggered by a post in a local blog. She decided to cite the blog, but not her direct competitor. Lana said she also did extra reporting to make the story her own rather than just copy what the blog had reported. "I went to the blog and read that, and then I found the Facebook page, which you know, basically gave all the details. Then I called [a politician's] people" (personal communication, September 3, 2013).

Self-evident Anonymity. If information appeared in multiple media sources, it could also suggest something else: that the information was common knowledge. One journalism textbook recommended that reporters should "always attribute what you do not see unless it is common knowledge" (Mencher, 2010, p. 34). Attribution was simply unnecessary when it was something that most people knew. This guidance presumes, however, that journalists know what knowledge is "common." For Nick, seeing similar stories in multiple newspapers meant that something was common knowledge. "If it's really exclusively showing up somewhere else, we'll probably give a source to that place," he said, "If there were, you know, three dozen stories [elsewhere], we probably wouldn't source any one particular one" (personal communication, September 3, 2013).

Reporters have sometimes not identified when they acquired information from objects. Journalists have often used objects in their reporting, including public records, photographs, and databases. Journalists have also not specified in their reporting how they acquired particular quotes, such as whether they were from a conversation, an email, or a press release (Zelizer, 1995).

For some analytical stories, journalists might consult numerous sources to get an overall impression of a topic—but only identify a few or even none of them. That was the case for Nick, who wrote a lengthy profile of a political candidate. He interviewed "maybe two dozen" people who had worked with the candidate to get an overall impression of what current and former co-workers thought of him. But few of the people Nick interviewed were quoted directly in his article. Instead, Nick often referred to these interviewees in the aggregate, using phrases like "some suspected," "some suggested," and "according to members of his staff" (personal communication, September 3, 2013).

Journalists often consulted more sources than they used in their final articles. As mentioned earlier, journalists wanted to maximize their supply of particular types of sources to ensure they would have enough for their final stories. In order to make sure they could all the roles they envisioned for their stories, journalists would sometimes call multiple people who could fill those roles, and then discard the backups. In one example, Lana was working on a story in which a local street was going to be named for a young boy who had been killed. She decided to call two local politicians who had connections to the effort. One politician's spokesperson called back immediately. "They had been working with the family, and they knew all of these details, so it was very straightforward," Lana said. Later, the spokesperson for the other politician called back. Lana confirmed details of the story with him, but "it was like a little bit late in the story, so I didn't include their quote, because I already had a politician quote" (personal communication, September 3, 2013). For Lana, having one quote from a politician sufficed. It did not matter which politician. Lana decided to use the politician whose staff members called back first because she could get that part of the story written well before deadline. Using the first source to call back also acted as a positive reinforcement; journalists wanted to encourage sources to respond promptly.

Journalists also left some sources out because they often were not sure until the last minute how much space they would have to fill. Even though they had virtually limitless space for their articles online, editors still assigned journalists to specific column-inches and word counts. They still wrote for the printed page first. And the amount of space they were given could vary drastically over the course of a day, as new stories came in. Therefore, a journalist who gathered enough information for a 10 column-inch story might throw half of it away by the end of the day. "The joke is that if we could take the reporting and the work that hits the editing room floor, so to speak, we'd have a shadow newspaper," Teresa said. "There's so much that gets left off the page" (personal communication, September 18, 2013).

Even when they had limited space, some journalists said they still felt compelled to seek out more sources than they would end up naming. "I'm an overreporter. My editors hate it," Helena said. "They want me to be faster" (personal communication, September 9, 2013). Eve said she felt she had to contact many sources even if she had little space for her final article.

> One of my editors was like I don't like this story, don't write more than eight inches. And they don't realize that you still have to call, like, you know, six

> people, six different entities just to get the whole story, if you want to want to do a good job. And we all want to do a thorough job. Even though that story was eight inches, you know, you still have to do the same amount of work. (personal communication, September 24, 2013)

Sources who went unmentioned due to space limitations could still influence the content of articles. An article that Vanessa wrote about a young girl with a rare disease, for example, included a description of the disease that was provided by the girl's mother. Vanessa had also interviewed a medical expert who confirmed the mother's description, and also provided greater detail about the disease, but that section was cut by Vanessa's editors. Readers might not have realized, however, that the mother's description of the disease had been backed up by someone with professional knowledge in that field.

Journalists may not name sources whose identities they see as irrelevant to the story. These are sources that journalists see as fact-providers rather than opinionators. They may also be sources whose roles are limited to those of tipsters; they instigated stories, but that was the extent of their involvement.

Source Refusals. Journalists have not always disclosed in their articles which sources they tried, but failed, to get. Journalists sometimes stated in their articles which sources did not return phone calls or refused to comment. This happened most often if journalists believed that not including particular sources left obvious holes in their reporting. Noting that a source refused to comment was a way of conveying to news audiences that the omission was not due to a lack of effort by the journalist. A "so-and-so refused to comment" line might also be a jab by the journalist at a source who was exceptionally rude. But journalists also had reasons not to mention when some sources turned them down. For one thing, taking jabs at sources was a bad strategy if they needed to return to those sources in the future. Additionally, disclosing all source refusals "might reflect on their competence to do the job" (Peters, 1973, p. 14). Journalists built their reputations on their abilities to get good sources, so revealing their failures could compromise their careers.

Knowing which sources refused to comment could be of interest to news audiences. Calling attention to which sources are participating in conversations about public issues, which have refused to participate, and which have not been invited to participate, can help news audiences understand where holes in news coverage exist and, if they choose, actively seek other media that can fill those holes.

Beyond the Usual Suspects and Real People

As some of the preceding examples have suggested, some sources that journalists use do not fit neatly into the two categories I identified in chapter 1: the usual suspects and real people. Journalists themselves can be sources. Their stories have included their own observations and analysis. They have also taken tips and assignments from their colleagues. Objects can also be sources. Objects may be produced by the usual suspects, real people, or journalists, but, as I will argue, they deserve special consideration.

Journalists. Journalists rarely identify themselves as sources. And yet, they have played the same roles that other sources have. They have been eyewitnesses, tipsters, and analysts. Journalists have been particularly appealing sources to each other because they believe themselves to be more credible than the usual suspects or real people (Boyd, 1997; Reich, 2009).

Journalists have served as sources when they were witnesses to news and included their observations and experiences in their stories. They have attended press conferences, observed cleanup efforts following hurricanes, and described what they saw in wartime skirmishes. Edward R. Murrow was known for the strong visual descriptions he included in his radio broadcasts, such as his dispatch from the Buchenwald concentration camp during World War II:

> There surged around me an evil-smelling horde. Men and boys reached out to touch me. They were in rags and the remnants of uniforms. Death already had marked many of them, but they were smiling with their eyes. I looked out over that mass of men to the green fields beyond, where well-fed Germans were ploughing. (1945)

Providing visual descriptions, also called "color," allowed journalists to demonstrate their authority to news audiences. The details they offered proved that they were actually there, in close proximity to the news being made (Zelizer, 1990).

Journalists have been sources for each other when resources to cover news have been scarce. Organizers of media events have sometimes limited press availability, restricting access to a small group of journalists known as "pool reporters," who then were expected to share what they observed with other news organizations. Journalists also helped each other "flesh out details" (Zelizer, 1992, p. 55) in the aftermath of the assassination of President John F. Kennedy.

Journalists have acted as tipsters on stories that they themselves could not, or did not want to, cover. Such tips have been known as acts of "news rescue" (Vergobbi, 1992). Journalists who were unable to report on particular stories themselves handed them off to colleagues or competitors in the belief that *someone* should cover them. They may not have been able to cover the stories themselves because of real or perceived conflicts of interest, the fear of getting sued for libel, or resistance from their superiors. Journalist Daniel Schorr (1977), for example, gave the *Village Voice* a confidential Congressional report that his own employer, CBS, refused to cover. Journalists have also recruited colleagues to report on stories that could have upset their regular sources. Crime journalists have asked colleagues on other beats to report stories about officer misconduct in order to avoid being "frozen out" from future news tips from police (Chibnall, 1977, p. 158).

Journalists can also function as analysts, playing a similar role to that of expert sources. Television news programs have often invited journalists from inside and outside their organizations to provide analysis.

> From a producer's standpoint, journalists are a boon. They are usually articulate, up on the issues, accessible, predictable, and desire the exposure. In fact, journalist sources effectively subsidize the cost of a show by relieving the news program's own reporters from the task of digging up information. (Reese, Grant, & Danielian, 1994, p. 93)

Foreign correspondents and other journalists could be more prone to analysis than their colleagues who were located closer to their home offices. The distance made far-flung journalists harder for editors to supervise and fact-check, allowing them to act "more as independent experts, free to make judgments" (Schudson, 2001, p. 163) rather than act as neutral reporters.

Some scholars have recognized that journalists could play the role of source. Sigal allowed that sources could be "the reporter's own analysis" (1973, p. 124), although according to him, that happened rarely. One study found that 10 percent of

U.S. articles about the Iraq war used journalists as sources (Dimitrova & Stromback, 2005). Journalists comprised roughly six percent of sources and took up 10 percent of the time in network television news coverage of the trial of Timothy McVeigh, who was convicted of a 1995 bombing of a federal building in Oklahoma City (Esposito, 1998). Journalists who covered the trial were particularly important sources, because a gag order prevented many people who were close to the case from speaking publicly.

Journalists have closely followed each other's work, spending "a good deal of time discussing news with newsmen and watching 'the competition'" (Epstein, 1973, p. 150). All journalists I interviewed listed several news outlets that they considered to be part of their regular media "diet"; although there was some variation, most of them cited traditional newspapers (their own and those of their rivals) and online media; a few also included television and radio. Journalists who used social media indicated that the users they were most likely to follow were other journalists.

Past reporting was also a common source. When labeling sources of particular text in their articles, journalists often used terms like "prior knowledge" or "background." When asked to explain, they would often describe past articles they had written about the subject. Lana, for instance, wrote an article previewing an annual parade that included details like how many spectators were expected to attend. "I mean, that's just from covering the event so many times," she said. "Like, I know what it looks like, and I know they have food and snacks and all of that" (personal communication, September 3, 2013).

Journalists may get ideas from their colleagues and rivals about potential stories. Nick, a transportation reporter, describes one story that was inspired by a colleague's complaint about double-decker tour buses.

> He goes, "there's these blanking"—he probably cursed, but, "these mother-blanking buses, you know, they're everywhere, and I can't get away from them. There's gotta be so many more of them than there were before." And I said, I wonder if that's true? (personal communication, September 3, 2013)

Nick's colleague suggested the idea to him because transportation was his beat; the colleague covered other topics.

Journalists have tended to assume that information in published articles are accurate (Ericson, 1998). Their trust in each other, however, can make it difficult to spot when they get it wrong. Journalists tend to assume that mistakes will be corrected—by their editors, or by their audiences. Although many journalists I interviewed were careful to check facts with multiple sources, some of them admitted being less than sure about smaller details that they ran out of time to double-check. Journalists often reasoned that those details must have been right, because no one contacted them to correct them after the articles were published.

However, sources have rarely sought corrections. Many sources have said that they decided not to request corrections because they perceived the errors to be minor and had negligible effects on their daily lives (Palmer, 2013). Still, studies have suggested that 40 to 60 percent of articles have contained errors (Maier, 2002; Maier, 2005; Tillinghast, 1982). One survey found that news audiences were skeptical that reporting errors would do any good:

> They doubted newspapers cared about mistakes or would listen to them. Navigating a newspaper's corrections system would take too much time. The error was so obvious that surely someone at the newspaper would correct it.

> They believed inaccuracies were intentional in journalism that glosses over the fine points and hypes storytelling. ("Readers Speak," 2003)

News organizations have also suffered from the perception that they would rather cover up their mistakes rather than fix them (Lester, 2005; Pew Research Center Project for Excellence in Journalism, 2011).

I did not ask any questions about errors, but many journalists I interviewed pointed them out in the articles we discussed. In almost all cases, they blamed the errors on sources or editors. Brenda said that one of her colleagues changed an emailed statement in such a way that a source appeared to have said the opposite of what she had actually said. "And the woman who wrote the email has been causing a ruckus about getting a retracted statement about this. Because it was so blatantly incorrect at how this guy translated her email," Brenda said. Andrea said that she misidentified the age of a politician's child because the politician's spokesman misinformed her. Nick said he had to keep revising an online story about a traffic accident over the course of a given day because two city agencies gave him conflicting information.

When journalists use each other as sources, factual errors may spread widely before they are effectively debunked. Snopes.com, a website aimed at fact-checking rumors and hoaxes, has in its archives several examples of news stories that were false but nonetheless spread. During the Gulf War, for example, an anecdote spread about a woman U.S. troops in Iraq had nicknamed "Baghdad Betty." She was a radio announcer employed by the Iraqi government to spread anti-U.S. propaganda. According to the *New York Times*, one of Baghdad Betty's taunts went something like this:

> "G.I., you should be home." Why? Because "while you're away, movie stars are taking your women. Robert Redford is dating your girlfriend. Tom Selleck is kissing your lady." And then comes the clincher. "Bart Simpson is making love to your wife." (1991)

The mistaken identification of nine-year-old cartoon character Bart Simpson as a sex symbol was good for a laugh. And in fact, that had been by design. The story originated as a joke on the *Tonight* show (the show's joke actually named Homer Simpson, Bart's father). Baghdad Betty did exist—but, prior to the *Tonight* joke, none of her quoted propaganda had included mentions of *Simpsons* characters. Johnny Carson issued a "retraction" of the story after it had appeared on wire services and in roughly 30 newspapers. Still, the story persisted long afterward. Knight Ridder newspapers ran an article in 2003 that referenced the anecdote without acknowledging that it had been based on a joke.

Journalists sourcing journalists could result not only in repeating mistakes, but also reinforcing blind spots. "If journalists concentrate on reading just what is produced by their fellow journalists, then they merely replicate the disconnection problem" (Nip, 2006, p. 229) between themselves and the public. Rick acknowledged that he had been concerned at times about reading too much reporting by other journalists. "I want to generate my own original stuff," he said. "I don't like to lean on them too much" (personal communication, August 30, 2013).

The prevalence of journalists as sources challenges past research describing the dominance of usual suspects in setting the news agenda. The extent to which journalists base their reporting on their own observations and those of other journalists suggests that a professional logic also plays a large role in how stories are told. The faith that journalists have in each other's credibility and judgment has also shaped their efforts to create new tools for finding sources.

Objects. Some sources have not been human. Source objects are created by humans, though. Those humans can belong to any of the three source categories already defined: the usual suspects, real people, or journalists. Objects created by the usual suspects have included government records, financial statements, and press releases. Objects created by real people have included photos, videos, social media posts, and websites. Journalists have created objects in the form of news articles as well as their own participation in social media.

Why give objects special consideration? Why not just consider them another means of getting information from the usual suspects, real people, and journalists? Indeed, journalists have seen some objects as essentially playing the same types of roles in their stories as the people who created them. Journalists who were interviewed about their use of press releases, for example, had "difficulty speaking about public relations materials separate from the people who produce them" (Curtin, 1999, p. 63). They saw press releases as just another channel for getting the information they would have otherwise received from public relations professionals in person or over the phone. But other objects have not been so closely linked to the people who made them. A database of school test scores is a different kind of source than an interview with an education department administrator. Photos taken at the scene of a plane crash provide different information than an interview with the real person who took them. News articles are a different kind of source than a conversation with a journalist. In those examples, objects are more like data than conversations. Objects could bear the signature of whoever produced them, but they were also independent of them.

Journalists have often preferred sources in object form because they could be easier to control. Communications scholar Dan Hallin observed this in his analysis of the shrinking soundbite. He concluded that television broadcasts used shorter soundbites from sources as news became more "mediated" and "journalist-centered." Rather than letting sources speak at length, journalists instead used soundbites as "raw material to be taken apart, combined with other sounds and images, and reintegrated into a new narrative" (1992, p. 9-10). The use of other types of source objects, including documents, social media posts, and photos, are an extension of that trend. They, too, are raw material that journalists can package into story forms. As Hallin observed, the use of object-oriented sources is "journalist-centered"—it gives journalists more control over how stories are told. Journalists who used objects produced by the usual suspects may thus be able to exert more control over stories than if they used the usual suspects themselves.

Objects have been particularly important to investigative journalists. "'Shoe leather' reporting is often still essential, but there are extraordinary opportunities for reporting today because journalists can find so much information on the Internet" (Downie & Schudson, 2009). Investigative journalists have often referred to the need to have a "documents state of mind" (Houston & Investigative Reporters and Editors, 2009) in order to ferret out information that might be difficult to get from people. Journalist Steven Brill wrote that objects were crucial to a lengthy exposé he wrote for *Time* on rising health care prices:

> Access isn't, in this case, about talking to the CEO of a hospital. It's about getting the bills. It's about getting their publicly available financial reports. About getting the insurance companies' explanations of benefits that they give to patients. Or the cost data the hospital has to file with CMS. In that sense, I got all the information I wanted. I was buried in access—three file cabinets full by the end. (Lieberman, 2013)

Objects can also make news reporting convenient. Journalists tend to be voracious readers of news and have often used articles as sources for their own stories. News organizations that subscribed to wire services used their articles as background information, or published them unedited (Lewis, Williams, & Franklin, 2008). Late night talk show host Conan O' Brien has poked fun at the widespread use of unedited wire copy on television by compiling video montages of news anchors repeating the same canned lines (O' Brien, n.d.). In most cases, the anchors were "ripping and reading" copy from CNN Newsource, which has distributed produced news packages, raw video footage and scripts to more than 800 clients around the country (Hochberg, 2014). In addition to wire services, journalists also often use articles found in their own organization's archives as background material. They may also take ideas and background information from articles that have been published by their competitors, or they may read national stories and "localize" them (Hogle, 2012).

Identifying Source Contributions

Examining interview data more closely can reveal the extent to which different types of sources influence the content of news articles. Several past studies have suggested that the usual suspects exerted substantial control over the news agenda. In order to assess who exerted control in the stories covered in my interviews with beat journalists, I examined data on who instigated stories, the variety of sources journalists used and the word counts associated with different types of sources. The results indicated that the usual suspects were not as dominant as some prior studies have suggested. Our findings may have differed for several reasons, including changes over time, differing definitions of "source," my use of interviews rather than content analysis to gather sourcing data, and my focus on local rather than national reporters.

Story Instigation

For each article I discussed with journalists, I began with the question: how did this story start? I categorized the responses of journalists according to the six types of sources I have already introduced: the usual suspects, real people, journalists, and objects created by usual suspects, real people, or journalists. Most of the time, the journalists I interviewed appeared to remember quite clearly how their stories began.

Who has instigated stories has been a subject of interest for media scholars based on the assumption that the instigator controls the story frame. Journalists had greater control over stories that began as their own ideas; sources had more control when they instigated stories (Berkowitz & Beach, 1993). Prior research has suggested that sources instigated stories more often than journalists did, creating the "potential for manipulation of the public agenda by sources powerful enough to hire press agents and 'manufacture' events" (McManus, 1994, p. 88). Government sources held a particular advantage, given their "organizational capacity to manage the flow of news material professionally" (Cottle, 2000, p. 433) and their ability to create "pseudo-events" (Boorstin, 1964), or activities that were organized for the purpose of attracting media attention. Some scholars have suggested that journalists might not bother to get additional sources for stories that were instigated by government officials (Greenberg, Sachsman, Sandman & Salomone, 1989).

Assigning credit for story instigation can be difficult. Scholars have suggested that sources who send press releases to journalists are clear instigators; they are "active," while journalists who receive press releases are considered to be "passive" (McManus, 1994). But considering that journalists receive so many press releases, and that most of them end up in the garbage (Elfenbein, 1986; Martin & Singletary, 1981), are journalists really being so passive in this process? They do not depend on press releases alone to dictate what they cover. Journalists sort through press releases, reject most of them, and choose a few winners. The story frames intimated by the press releases might not even be the ones that journalists end up using. Press releases could merely "spark story ideas" (Curtin, 1999), leading to published articles that barely resemble the promotional materials that spawned them. Thus, stories that are instigated by press releases do not necessarily reflect a dominance of sources over journalists in control of the narrative. Crediting journalists for story instigation could be just as problematic, though. All story ideas come from somewhere. The ideas that occur to journalists emerge from things they have observed, read, and discussed with their colleagues, friends, and families. How often are ideas truly their own, and how many are borrowed from some combination of outside influences?

These issues aside, I coded story instigation according to how journalists described it during our interviews. If they said they received a press release, I coded it as "Usual Suspects Object." If they said the story resulted from something they had personally wondered about, I coded it as "Journalist." My results did not suggest, as prior studies have, that the usual suspects were particularly dominant instigators. In fact, I found journalists themselves to be the most common type of instigator. The bar chart that follows groups objects and people together since objects are inextricably tied to their authors. However, as I have argued earlier in this chapter, I believe that journalists use objects differently from people in their reporting.

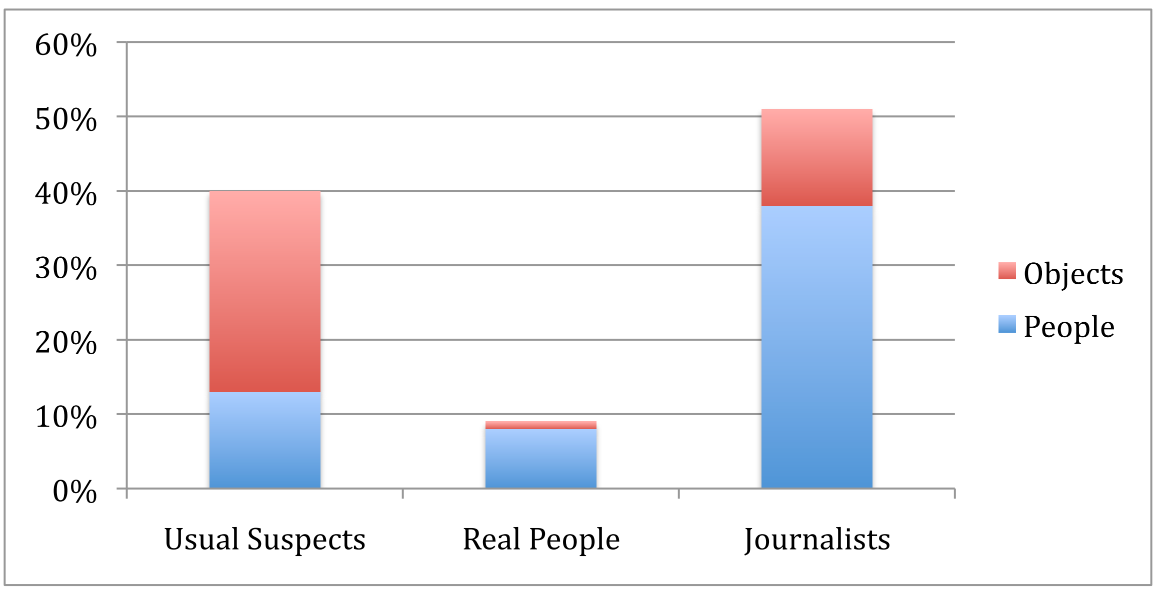


Figure 2.1. Story instigators, categorized by source type.

The usual suspects instigated stories 13 percent of the time. Those were sources with whom journalists regularly spoke, such as politicians, police, attorneys, and public relations professionals. Objects created by the usual suspects were story instigators 27 percent of the time. Those stories began with press releases, government meeting schedules, legal complaints, email blasts, and a police precinct's Facebook page.

Real people were story instigators eight percent of the time. They included a whistleblower who was a low-level government employee, community volunteers, and quirky characters. One real person instigated a story by calling a journalist with an idea he had for a follow-up piece to another story she had recently written. The one instance in which a real person's object instigated a story was a memo that had been emailed to the journalist.

Fifty-one percent of stories were instigated by journalists or objects created by journalists. About one-third of these were "enterprise" stories. It is a subjective term, but one that I used to describe stories that arose from a journalist's own personal hunches, curiosities, and passions. Those included Abe's story about an older couple: "I had just seen them, you know, they live in my mother's building" (personal communication, September 10, 2013). Another story I labeled "enterprise" was an analytical piece by Nick about a politician he often covered. He said he "had been lobbying for a little bit of time to just do a more comprehensive profile" (personal communication, September 3, 2013) of the politician. Sometimes, enterprise stories resulted from the efforts of journalists to follow particular topics of interest. The journalists may have reported one story that was triggered by an outside source, but then they continued to follow developments and wrote new stories when they thought it was appropriate. Aside from the enterprise stories, other articles in the journalist or journalists' objects categories had been assigned by editors, suggested by colleagues, or had appeared in other media, such as wire services, newspapers, blogs, or the social media posts of other journalists.

It would go too far to suggest that this sample of 20 journalists provides a representative breakdown of story instigation practices for an entire profession. Some journalists may be more likely than others to rely on particular types of instigators. However, the journalists I interviewed did not rely exclusively on one type of instigator (a specific breakdown of who instigated each story is provided in Appendix A). The variety of story instigators suggests, at least, that the usual suspects may not play as strong a role in story instigation as prior studies have indicated.

Number of Sources

Generally, writing stories with only one source has been considered bad professional practice for journalists. Using multiple sources has allowed journalists to corroborate information and include more diverse perspectives in their stories. I examined the number of sources that beat journalists in my sample used. I also categorized their sources by type to determine whether, as prior research has suggested, the usual suspects played a dominant role.

The beat journalists in my sample used an average of 6 sources per article. Despite the fact that my definition of "source" was likely broader than the ones scholars have used in prior studies, our averages were not all that different.

Communications scholar Daniel Berkowitz (1987) found that local newspaper stories used an average of 5.6 sources, while national stories averaged 7.6 sources. (Television stories in his study used fewer sources, averaging between 1.87 and 2.93 sources per story.) Journalism professors Dominic Lasorsa and Stephen Reese (1990) found that stories they analyzed about the 1987 stock market crash had an average of 6.1 sources. A cross-national survey of media in newspapers outside the U.S. found lower averages, ranging from a minimum of 1.19 in India to a maximum of 2.19 in Italy (Tiffen et al., 2013).

Some prior studies focused particularly on single-sourced stories. These stories have been of particular concern because stories with only one source are more vulnerable to errors and ignore alternative viewpoints. Prior research has reached widely varying conclusions about the percentage of stories in newspapers that used only one source. One study put the figure at 24 percent (Pew Research Center Project for Excellence in Journalism, 2002). Leon V. Sigal (1973) found that 35 percent of the stories in his sample used only one source. A study of local newspapers in the UK found that 76 percent of articles were single-sourced (O' Neill & O' Connor, 2008). Again, these studies used content analysis—so sources that were not identified in articles would not have been counted.

In my sample, only four percent of stories included one source. In all of those cases, the source fit the category of "usual suspects object." The sources were all legal documents. In our interviews, the journalists who wrote the single-sourced stories identified other sources that they had tried to contact, such as people who were involved in lawsuits, but those attempts were unsuccessful. So although some articles had only one source, it was not due to a lack of effort on the part of journalists.

The most common reasons journalists cited for not including more sources in their articles were lack of space—their editors limited them to a certain number of words or column-inches—as well as lack of time. I asked journalists how much time they spent reporting each of their articles, hoping to assess whether shorter deadlines correlated to fewer sources. However, measuring time turned out to be more problematic than I had expected. Journalists often worked on multiple articles at the same time. Their work on articles could also be of varying intensity at different times. They could have an idea for a story and do some preliminary research, then set that work aside for another story that they deemed more urgent. They may return to their original story several times before actually finishing it. For these reasons, journalists often struggled to answer the time question, and I decided not to consider it in my data analysis.

I believe that the journalists I interviewed likely underreported the number of sources they used. Journalists sometimes could not recall all of the sources they used, particularly when the number of sources was high. Several journalists forgot about some of their sources until we examined the actual content of their articles. When we came upon a name of a person they had not already mentioned, it would jog their memories. I also believe that journalists likely undercounted the number of objects they used in their reporting. Although I asked them specifically about the objects they used, journalists were unlikely to recall every website they might have visited or article they might have read.

I categorized each journalist's sources by type. I did this to test whether, as prior studies have suggested, the usual suspects were the most common type of source. Based on the descriptions that journalists provided of their sources, I coded them to according to the six categories as already defined.

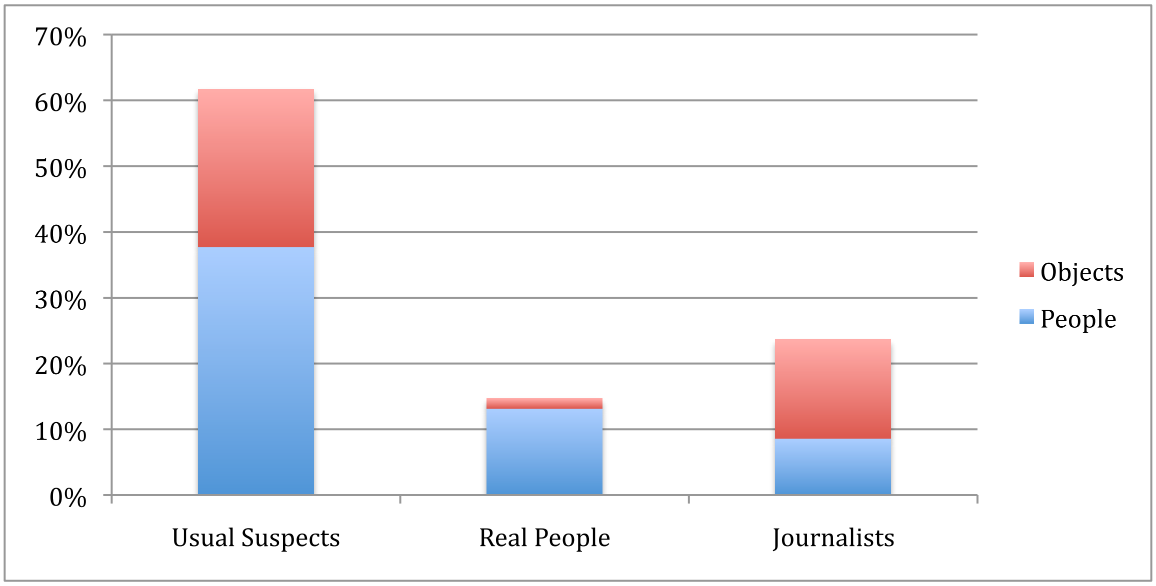


Figure 2.2. Sources used by journalists, categorized by type.

The usual suspects were, indeed, the most common type of source. They accounted for 38 percent of sources. Objects created by the usual suspects were the second most common, comprising 24 percent of sources. However, even when both categories are added together, for a total of 62 percent of sources, the usual suspects appear to be less dominant than prior studies have suggested. Sigal (1973) identified 78 percent of sources as officials, a subset of the usual suspects category. Gans (1979) found 85 percent of sources were "Knowns," a category that is roughly similar to the usual suspects. In my sample, journalists' objects were the next most common type of source. They were 15 percent of all sources. Real people were 13 percent. Journalists were nine percent of sources, and objects created by real people were roughly two percent.

Despite the fact that journalists used the usual suspects more than any other type of source, they rarely had an exclusive say in the articles in which they were featured. While 95 percent of stories included at least one source that was either a usual suspect or an object created by a usual suspect, only 10 percent of articles used sources that *only* belonged to one of those two categories. The remaining 90 percent of articles included at least one of the other four remaining types of sources.

Source Word Counts

Counting the overall number of sources does not reveal how influential individual sources might have been on the stories in which they were featured. One source may contribute a single fact, while another source could frame an entire story. Identifying the extent of each source's contributions can help audiences gain a better understanding of whose versions of events are represented most fully. Connecting sources to their contributions can also help journalists and audiences hold sources more accountable for the information they provide, particularly if that information turns out to be false or misleading.

The beat journalists I interviewed labeled their articles according to which sources provided which information. The unit of analysis was the sentence. I did not ask journalists specifically to label source contributions by sentence, but most of them did so on their own. Sometimes, journalists indicated that certain sentences could be attributed to more than one source. In those cases, I coded those sentences multiple times according to each source specified. For instance, if the journalist said that a particular sentence could be attributed to a politician and a prior news story, I would code it once in the category of Usual Suspect and once in the category of Journalist Object. If a sentence could be attributed to two real people, I would code it twice in the same category. I did not code sentences that only indicated that particular sources had refused comment. I coded each sentence according to the six source categories, and then counted the total number of words attributed to each category.

An example of a coded article is below. It is Brenda's story, mentioned earlier in this chapter, about a lawsuit over a dog. The text has been redacted in order to maintain Brenda's anonymity, but the labels she added are visible. The shades of the text blocks indicate how I coded each sentence. The blue blocks represented information in the Usual Suspects Objects category. As Brenda indicated in her labeling, the first five paragraphs came from the text of the lawsuit. The green section represented information that came from a real person. It was a quote from the dog's owner. The second blue section came from an emailed statement that

Brenda received from the leader of an organization she had contacted for comment.

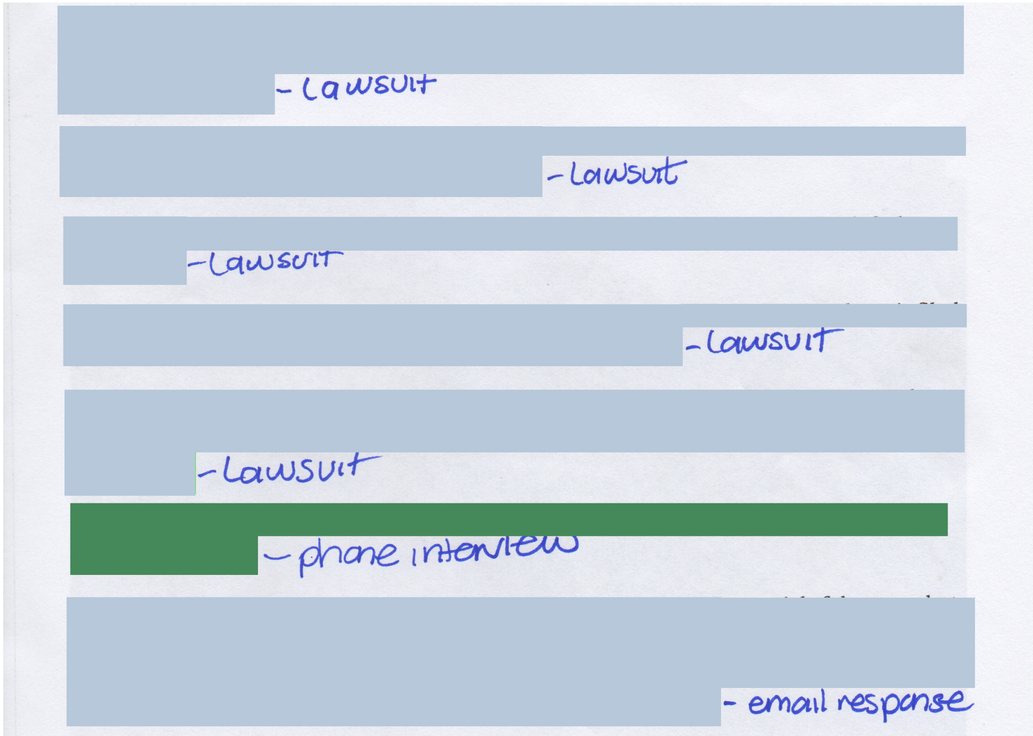


Figure 2.3. Article labeled by Brenda and coded according to source type.

Another example of a coded story is below. This was a story by Jack about local politics. The dark blue blocks represent information that came from the usual suspects. The first two paragraphs were about an announcement that a politician made on a local radio show. The third paragraph came from a different usual suspect: a political analyst who worked at a local college (the line after the third paragraph was Jack's marking to show that the paragraph came from the political analyst, whose name appeared in the last line). The light blue paragraph represented information that came from an object created by a usual suspect. It was an email from another politician's spokesperson. This article features two orange paragraphs, which Jack did not label but identified during our interview as information that came from prior reporting. Other dark blue paragraphs represented quotes from a politician who appeared on television, phone interviews with two other political analysts, and a phone interview with a spokesperson at the local board of elections. The final paragraph also contained information that came from the board of elections. It is light blue, however, because the information came from an object: the board's website.

Figure 2.4. Article labeled by Jack and coded according to source type.

The following article is by Sabrina. It is another political story. Sabrina attended a campaign event for a local politician. The brown blocks of text represent information that came from the journalist herself—as Sabrina labeled it, her "personal observations." The dark blue blocks came from the politician's speech at the event. The green block came from a real person who spoke in support of the politician (Sabrina erroneously labeled this on her article a little bit above where the real person's quote actually appeared, noting that the politician "introduced her." Sabrina then noted that she checked the spelling of the real person's name afterward with the politician's spokeswoman). The block of text after the real person's remarks appears as light blue fading into dark blue because it was coded twice. The dark blue represents a usual suspect, the politician who spoke at the event. The light blue represents a usual suspect object, which, as Sabrina labeled, was a press release. Finally, the article ends with more of Sabrina's observations.

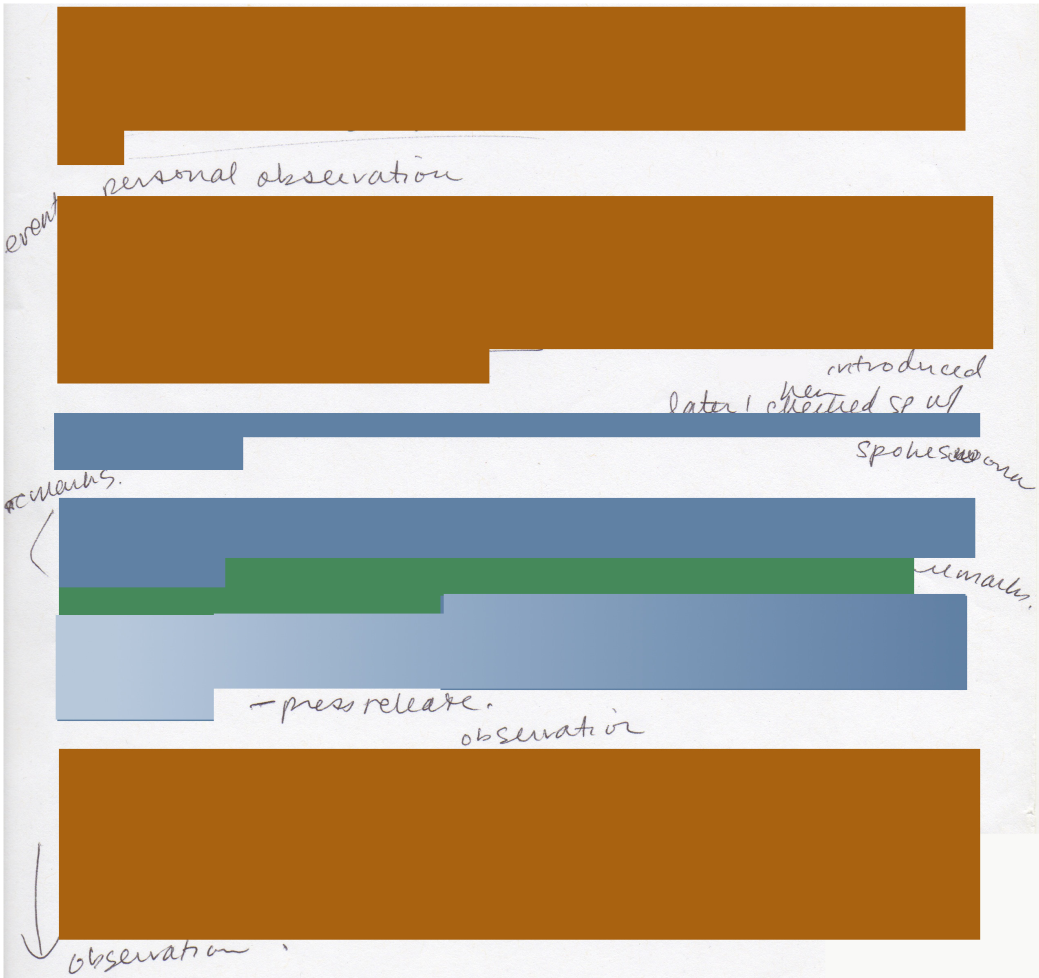


Figure 2.5. Article labeled by Sabrina and coded according to source type.

Averaging the source percentages from all journalists yields the following results.

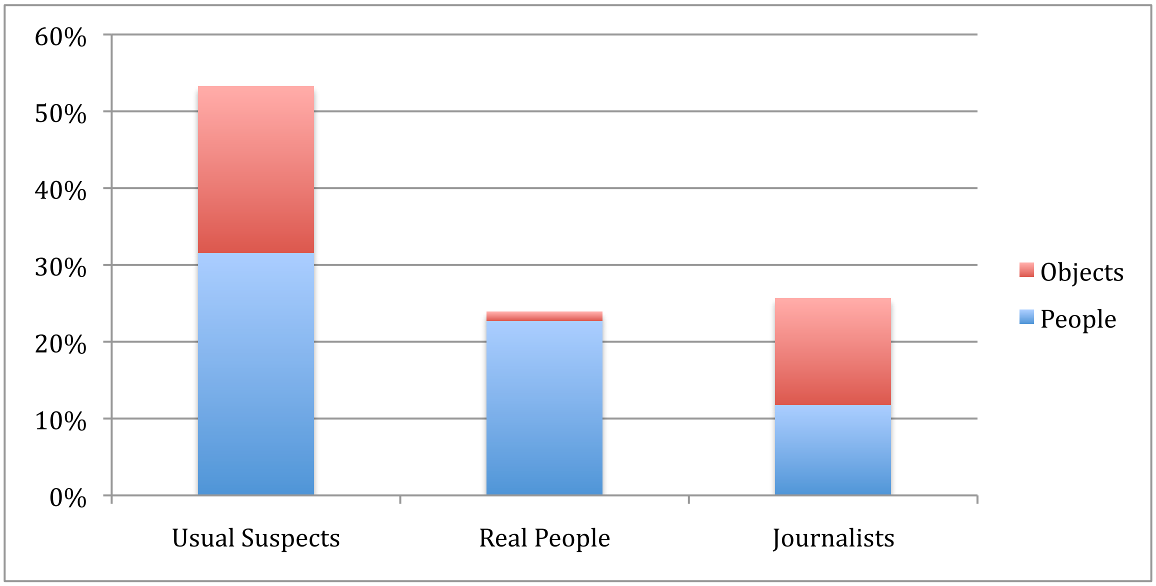


Figure 2.6. Percentage of words attributed to each source type.

The usual suspects and objects created by the usual suspects account for the highest and second-highest percentages, respectively, of word counts. The usual suspects contributed 32 percent of words; usual suspects objects contributed 22 percent. A comparison of source numbers and word count percentages reveals that the usual suspects and objects created by the usual suspects contributed fewer words on a per-source basis.

As seen in Figure 2.2, the usual suspects comprised 38 percent of all sources. But as seen in Figure 2.6, the usual suspects contributed 32 percent of all words. By contrast, real people represented only 13 percent of sources, but accounted for 23 percent of words.

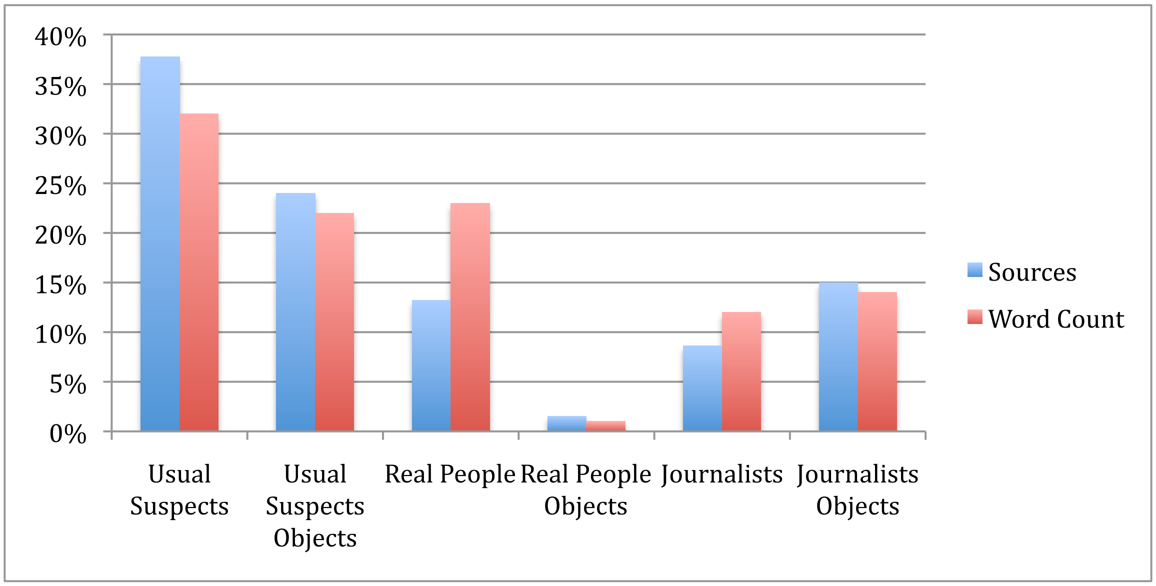


Figure 2.7. Percentage of sources compared to percentage of word count.

The percentage of words attributed to real people merits further discussion because their contributions varied substantially from journalist to journalist (for the complete dataset, see Appendix A). Seven of the 20 journalists included no real people at all in their stories. Meanwhile, three journalists attributed more than half of the words in their articles to real people. What accounted for such variation? One clue may be the types of articles in which real people appeared most often. The three journalists with particularly high real people word counts tended to write longer, human-interest types of stories. Real people were often at the center of their narratives, and much of the story content was based on their perspectives. The three journalists were all older and more experienced than average. Their experience may have allowed them to develop deeper sources over time. Their experience also could have also helped them hone techniques for finding real people and winning their trust quickly. Because the use of real people varied so much among the journalists I interviewed, it is difficult to draw conclusions about how often these types of sources are used and what kinds of contributions they tend to make. Research that focused on specific types of journalists, such as those that write for particular beats, could yield more insights.

My interviews with beat journalists suggested that news content was not overwhelmingly based on the contributions of the usual suspects. The usual suspects and journalists appeared to share responsibility for story instigation. Usual suspects were the most common type of source, but they were rarely the only type of source featured in stories. Finally, real people tended to contribute more words than other types of sources in the articles in which they were featured. That suggested that, while they may not appear as often, the stories that did feature real people depended on them heavily for information.

Why do my findings suggest that the usual suspects have less influence over reporting than other scholars have found? One reason could be that the usual suspects have lost influence over time. Most studies on news sourcing took place at least 20 years earlier. Journalists have tried since then to exert more control over the reporting process. Another reason that the usual suspects could appear less dominant in my research is that my definition of source is likely broader than the ones other scholars have used. My method for identifying sources is also different. For the most part, prior sourcing studies have been based on content analyses, which cannot reveal the numerous sources that journalists leave unidentified in their texts. Finally, my findings may have differed from prior studies because my interview subjects were local reporters. Most prior research focused on national reporters, who may generally be more dependent on the usual suspects for information.

The results of my interviews with beat journalists also suggested that the supply chain is an apt metaphor for the reporting process. Journalists described their reporting processes in a series of steps, in which they contacted specific sources with the intent of acquiring specific information. The labels that journalists applied to their articles indicated that it was relatively easy to trace the results of their various "exchanges" with sources. Interviews with journalists were the only way to reveal all of these exchanges, since the articles themselves rarely identified all sources and which information they provided. The interviews also indicated that some journalists were more likely than others to include real people in their stories—although it was not always clear why.

CHAPTER 3: DIGITAL SOURCE TOOLS

Some journalists have used digital tools to make their reporting processes more efficient. Other journalists have used these tools to report stories in new ways. Chapters 4-6 will describe the ways journalists have used digital tools to find, evaluate, and manage sources. In this chapter, I will describe how these tools originated and how they work.

Journalists have used several types of digital search tools to find sources. Most of my analysis in this chapter will focus on two tools that were created by journalists for the specific purpose of expanding their pool of potential sources: the Public Insight Network and Storyful. However, I will also describe other tools that were created by non-journalists with journalists (and sometimes other types of clients) in mind. Finally, I will discuss social media tools that were not created for journalists, but have nonetheless been used for news gathering.

Tools Created by Journalists

I am focusing most of my attention on digital tools that were created by journalists because their very existence reveals perceived shortcomings in the reporting process. These tools have represented attempts to solve journalistic problems. Journalists do not like to be known as problem solvers. They prefer to think of themselves as problem identifiers. They have identified when officials were corrupt, when budgets failed to balance, and when traffic intersections were unsafe. But generally, journalists have not been involved in solving those problems. That was someone else's job. They may have hoped that their stories led to solutions, but they usually stopped short of advocating for particular ones. The jobs of journalists have been to illuminate, not to fix.

Consumer advocates have been an exception. They have also called attention to problems, but they have additionally used their public platforms to right specific wrongs against people who sought their help. Consumer advocates have the luxury of choice, though. They could choose the wrongest of the wrongs among the stories submitted to them. Consumer advocates could choose the most sympathetic of victims, and the most egregious of villains among the shoddy contractors, recalcitrant refunders, and other rip-off artists who have often been targeted in such features. They could choose stories in which it was easy to take sides. Other journalists who have wanted to advocate for particular causes could do so, but they have tended to work for organizations that unabashedly supported particular points of view, such as political platforms or humanitarian causes.

Journalists who have wanted to work for mainstream news organizations, however, have felt that they must avoid advocacy. Professional ethics codes have also advised journalists to avoid real and perceived conflicts of interest, including "political involvement, public office and service in community organizations if they compromise journalistic integrity" (Society of Professional Journalists, 1996). Journalists have even been reluctant advocates on problems that affected their own professional interests, as demonstrated by their limited involvement in debates over the public journalism movement, funding for public broadcasting, and cross-platform media ownership.

Study of the Public Insight Network and Storyful can reveal which problems journalists have been passionate enough about to work on possible solutions. The tools target different problems, and the tools themselves work differently, but both have ultimately been aimed at expanding sourcing options beyond the usual suspects.

Public Insight Network

The problem that PIN was trying to solve was a lack of diverse knowledge among the usual suspects. PIN was a sourcing database that was created on the premise that anyone could have knowledge that could be of use to journalists. Anyone who wanted "to share knowledge and insights with journalists, helping them cover the news in greater depth and uncover stories they might not otherwise find" (Public Insight Network, n.d.) could register with PIN as a source.

Most sources joined the database by answering queries from journalists about stories they were reporting. Queries were often posted on the websites of news organizations that used PIN (also known as "PIN partners"). In order to sign up, sources had to provide at minimum their names, email addresses, and ZIP codes. Sources were encouraged, however, to submit as much information about themselves as possible in order to help journalists identify stories for which they might have relevant knowledge. Sources could provide additional information about themselves by creating profiles in PIN's system, called Source, although few of them did so.

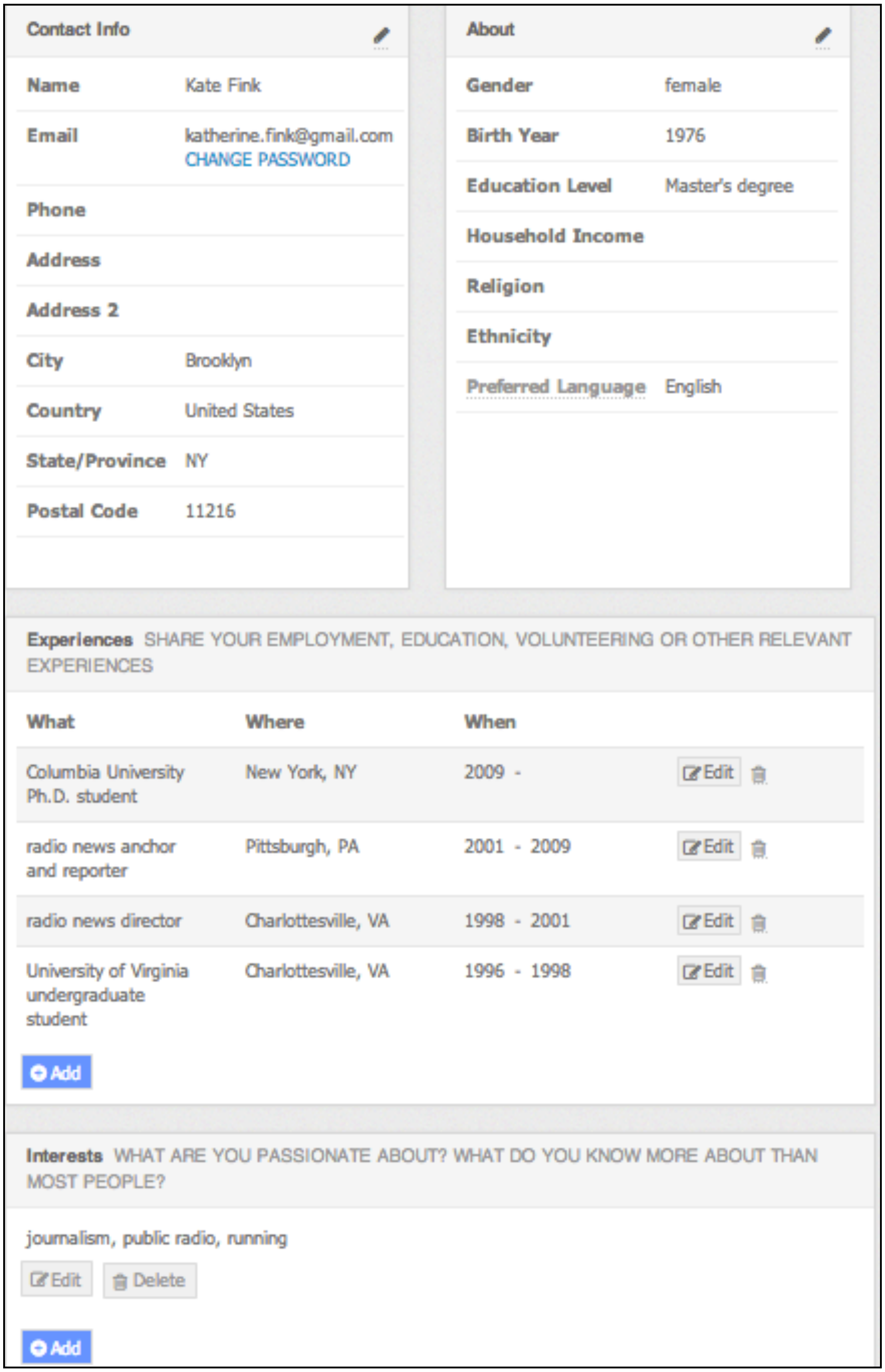


Figure 3.1. Author's profile in PIN's Source system.

When sources responded to queries, those responses became associated with their profiles in Source. Thus, the more often they responded to queries, the more that journalists could learn about the type of experiential knowledge they had.

Have you been affected by a DUI incident?

Since 2008, California traffic safety officials have stepped up efforts to prevent serious crashes involving impaired drivers who are under the influence of alcohol or drugs.

The number of Californians arrested for driving under the influence (DUI) has declined since then and so have injury crashes caused primarily because of alcohol or drugs, but fatal crashes caused by impaired drivers are slightly up and so are certain age groups that are arrested for driving under the influence.

In 2011, approximately 77 percent of DUI arrests in California were male. Female drivers made up 23 percent of the arrests.

KPCC crime and public safety reporter Erika Aguilar is interested in talking to people involved in or affected by a DUI incident. That includes drivers, passengers, victims, relatives, counselors, health and legal experts.

Help shape KPCC's coverage by sharing your insights. We read every response and they all help contribute to KPCC's journalism. Responses are confidential. If you're willing to be public with your responses, though, look for the permission buttons below and click yes.

MORE FROM KPCC

- Weekend Traffic: 405, 91, Foothill Boulevard to see closures | MARCH 20TH, 2014

First Name *

Last Name *

Email *

Zip code *

Phone

Have you been affected by a DUI incident? When?

How were you involved in the incident? Tell us what happened.

Would you be comfortable talking to a reporter about this?
- Yes
- No
- Maybe

Are there parts of the California DUI laws that confuse you? If so, what and why?

May we publish your insights and attribute them to you? (Your comments may be edited for length or clarity.) *
- Yes
- No
- Contact me first

Submit

Figure 3.2. Example of PIN query.

PIN began in 2003 at Minnesota Public Radio. In the area of public broadcasting, MPR is a giant. Begun in 1967 as a college radio station, MPR eventually owned 38 stations throughout Minnesota, as well as two in South Dakota, and one each in Michigan, Idaho, and Iowa. MPR also purchased 42 translators, which are devices that boost the geographic reach of radio signals. The combination of radio stations and translators meant that MPR signals reached practically everywhere in Minnesota, although signal strength in the northern part of the state was less consistent. MPR owned all NPR-affiliated stations in Minnesota. It also owned and operated the Fitzgerald Theater in St. Paul, which hosted live tapings of the long-time public radio program *A Prairie Home Companion* as well as other events.

Although a giant in its own right, MPR was actually part of a larger entity: American Public Media. APM was the second-largest producer of public radio programs in the country, after NPR. APM formed in 2004 to develop and distribute programs, such as the business show *Marketplace*, for public radio audiences outside Minnesota. APM also operated radio stations in California and Florida, published magazines, and offered event-planning services.

PIN began as the brainchild of Bill Kling, MPR and APM's founder and long-time president (he retired in 2011). Kling said PIN's genesis occurred at a board meeting during which members discussed ways to get MPR listeners more involved in the organization. Kling said board members were convinced that public radio audiences had knowledge that could be helpful to reporters. Too often, he said journalists learned about that knowledge too late, when listeners called to correct mistakes in news stories. Kling envisioned a collection of sources who were like the people he encountered when he attended the annual Aspen Ideas Festival, where he found himself "listening to people who really were experts, and knowledgeable in ways that the general public wasn't" (personal communication, November 15, 2012). In fact, Kling originally intended for PIN not just to be a resource for journalists, but also for other people who were looking for expertise on particular topics. He thought teachers could use PIN, for example, to help find guest speakers for their classes.

Kling's vision for PIN did not much resemble the database in its final form. Although Kling said he was open to having anyone join the database, several MPR employees said he actively encouraged journalists to add people to PIN who were "well-connected" and "friends," such as leaders in the non-profit community Kling knew. Journalists begrudgingly added the contact information of Kling's friends when he provided it, but they saw little point. MPR journalists already knew how to contact those non-profit leaders; they were among the usual suspects.

Kling's tendency to imagine PIN sources as expert members of the public radio audiences reflected a tension that existed in other newsrooms that used the database, as well. "It's been sold to reporters as a reporting tool. It's been sold to managers as an engagement tool" (personal communication, January 17, 2013), one journalist said. Kling, like other managers, saw the potential for PIN to help news organizations build loyalty among their existing audiences. Deeper engagement with the public radio audience could lead to more donations from individuals and businesses. Journalists, however, were not as interested in engaging with their existing audiences. Public radio audiences were heavily populated with the usual suspects. Journalists instead wanted PIN to help them reach real people *outside* their existing audiences. Those sources were the hardest to reach.

Michael Skoler wanted to move PIN more in the direction of real people. Kling hired him in 2003 to oversee MPR's 63-person reporting team, as well as implement PIN. Skoler said his own vision for PIN "was always a populist view… I wanted to connect reporters to people who didn't necessarily have titles" (personal communication, July 23, 2012). Skoler had worked as a science reporter for NPR and other outlets for 17 years, but left journalism to earn an MBA and work as a media and technology consultant. He later returned to public broadcasting, leading the Public Radio Collaborative, a joint reporting effort that involved NPR and its member stations as well as the BBC and CBC.

Skoler originally planned for PIN to be part of a larger initiative called PIJ, or Public Insight Journalism. PIJ was to have included a polling institute, where reporters could test hunches about potential stories to see whether those ideas resonated with the public. PIJ also included a series of news-related games, including one that invited users to try to balance Minnesota's state budget. Game players were invited to sign up for PIN. Skoler created Budget Balancer as a means for recruiting sources, but also to provide direction for MPR's political news coverage. He believed that political reporting too often focused on the potential consequences of budget cuts, rather than the ways that spending decisions related to one another. Budget Balancer, he hoped, would help users see that government spending was a process of setting priorities, of making tough choices among competing visions for Minnesota's future. He also hoped that the game would change reporting practices by providing MPR reporters with data on which areas of government most interested listeners. The game eventually evolved into one called "Budget Hero," which focused on the national budget.

PIN's strength as a source-finding tool depended on numbers. The more people who joined the database, the likelier journalists were to find useful sources. But recruiting potential sources was not easy, because PIN was a new concept. Skoler and Andrew Haeg, a business reporter who was tapped to help lead PIN, focused their initial recruitment efforts on loyal MPR "members" (in the public broadcasting system, "members" are people who regularly donate to their local stations). Much like a Tupperware or jewelry salesman, Skoler asked MPR members if they would invite over their friends to hear a pitch from him about PIN. Skoler would explain his vision for PIN and ask attendees what would make them want to sign up for it. Haeg distributed cards on which interested people would write their names, email addresses and ZIP codes. Skoler and Haeg then took the cards back to MPR, and manually entered the information into the database.

PIN began expanding to other newsrooms in 2007. Four public radio organizations signed on: New Hampshire Public Radio, Oregon Public Broadcasting, Denver's KCFR, and WUNC in Chapel Hill, North Carolina. Since then, other types of organizations have joined, including newspapers, television stations, and online-only news sites. By the end of 2013, PIN was being used in about 80 newsrooms.

At its most basic level, PIN replaced what were often informal record-keeping processes that individual journalists kept on their sources. It was a "BFR," or "Big Fucking Rolodex," as some MPR reporters called it. Skoler and Haeg winced at that name. To them, PIN had the potential to be more than a rolodex. PIN user profiles could be more robust. Every time sources responded to queries, their answers were attached to their profiles. That meant that, over time, journalists could learn a lot about their most active sources. Haeg said he believed that PIN was at its best when it was a "discovery engine"—a tool to learn about new or undercovered stories from people who had a personal connection to those stories. APM tried to discourage the use of PIN as a "virtual casting couch," or a means to find "needles in the haystack" (Haeg, personal communication, May 15, 2012)—people who fit such a specific profile that reporters were unlikely to find them.

PIN's administrators have often cited radio station KPCC's coverage of the aftermath of a 2009 prison riot as a success story. The riot itself had been heavily covered in southern California media; KPCC's scoop related to how prisoners were treated after the riot ended. Reporters learned from a PIN source that inmates had been kept outdoors in cages for several days with little protection from the sun or from cold temperatures at night. The PIN source, Charlene Padilla, had a son in the prison who told her about the conditions. She and her son persuaded more than 50 other inmates to write to KPCC detailing their experiences after the riot.

Roughly two-thirds of organizations that have used PIN have been in public media. They have been public radio stations, public television stations, or producers of programs that were distributed on public radio or public television stations. One explanation for PIN's popularity among public media organizations was that they were more likely to have heard of it. APM was already well-known among public media organizations before it created PIN, and it used its pre-existing networks to market the database. APM also publicized PIN at public media conferences and in the public media trade journal, *Current*.

PIN also held particular appeal for public media organizations because their leaders shared Skoler's populist vision for news gathering. Populism had in fact been part of NPR's founding. As its "Purposes" statement suggested, NPR's founders advocated for varied programs in order to serve diverse populations that commercial broadcasters had been ignoring:

> National Public Radio will serve the individual: it will promote personal growth; it will regard the individual differences among men with respect and joy rather than derision and hate; it will celebrate the human experience as infinitely varied rather than vacuous and banal; it will encourage a sense of active constructive participation, rather than apathetic helplessness. (Siemering, 1970)

Populism has also been part of the public broadcasting funding model. Donations from individual listeners and viewers have been the public broadcasting system's largest revenue source. Public broadcasters have also received funding from government appropriations, grants, and educational institutions. A commission that reviewed the public broadcasting system after its first ten years praised its diversified funding model, but cautioned that its reliance on individual donations might result in programming that "caters to the largest givers" ("Public Trust," 1979), favoring wealthy elites over the rest of the population.

A key challenge for PIN has been its financial sustainability. Kling says PIN was never a revenue generator during his tenure at APM; in fact, it had been "the opposite" (personal communication, November 15, 2012). Revenues consisted of licensing fees paid by the newsrooms that used it. The standard fee had at one point been $5,000, but has varied from newsroom to newsroom. PIN also attracted funding from the Corporation for Public Broadcasting and the John S. and James L. Knight Foundation. But Kling said the value of PIN should be measured in part by whether it has helped newsrooms produce better stories. "If you can make your product better, then revenue opportunities occur, you know, here, there and everywhere, that may have nothing to do with Public Insight Network but have to do with the value of your content" (personal communication, November 15, 2012).

Storyful

PIN has aimed to bring more experiential knowledge into news by making it easier for journalists to connect with real people. Storyful has also helped journalists access experiential knowledge, but in a different way—it has focused on objects created by real people. In particular, Storyful has helped journalists find and verify videos and photos that real people captured at the scenes of newsworthy events.

Storyful founder Mark Little has called his company "the first news agency of the social media age" (Little, n.d.). Storyful has specialized in finding and verifying social media content for news organizations that want to use it in their coverage. Storyful journalists search for what many news organizations call "user-generated content" (UGC)—mostly videos and photos that have been uploaded by users of social media platforms like YouTube and Twitter. While it once produced its own articles for a public audience, Storyful has since become more of a wire service, feeding content to paid subscribers of its "Pro" platform. Most subscribers have been large news organizations interested in international news including Reuters, the Wall Street Journal, both ABCs (the one in the U.S. and the one in Australia), and Yahoo! News. Storyful has also had some less news-oriented clients, including the Weather Channel, and the human rights organization Witness.

While its business model was once based on subscription fees alone, Storyful launched a new revenue stream in 2013: video licensing. When Storyful journalists contacted video producers to ask for permission to use their content, they began also offering to manage the rights to it. Uploaders who agreed to let Storyful license their videos could share revenue with the organization on advertisements that appeared at the beginning of their videos on YouTube. Video rights management has been a boon for Storyful, generating about 40 percent of its revenues in 2013 and helping it earn a profit for the first time (Silverman, 2013).

Little founded Storyful in 2010 after taking a leave of absence from the Irish television network Raidió Teilifís Éireann (RTÉ). He had worked as a journalist and host at RTÉ since 1991 (RTÉ, 2009). Little said he founded Storyful to harness the power of social media. He believed that social media allowed unmediated, "authentic" communications between first-person witnesses and the public (Little, 2013). By "authenticity," Little had in mind amateur videos that he saw on YouTube during the Arab Spring uprisings in 2010-2011. "I realized the potential to get closer to the story, faster. I was inspired by the collaborative spirit of social networks. I saw all the things that had inspired me to be a journalist in the first place" (Little, n.d.) he wrote on Storyful's blog. Little said the videos uploaded by activists and others who were on the ground during the uprisings was more authentic than the type of coverage he often had to do as a foreign correspondent, where "you were only ever really covering the war from the piece of dirt where your satellite truck was parked" (Little, 2014). Authenticity came from being there; it was a form of experiential expertise. It was also something that journalists could verify systematically by interrogating the UGC using data-driven techniques.

Storyful employed around 35 people as of 2013. Of those, about three-fourths had backgrounds in journalism; most of the others were technologists or administrative employees. David Clinch, who co-founded Storyful with Little, is the organization's Executive Editor and is based in Atlanta. He had worked for CNN before joining Storyful. Most Storyful employees have been based in Little's hometown of Dublin, Ireland, but a few have been scattered in other parts of the world, including the U.S., Germany, and Hong Kong. Despite not all being located in the same office, employees have remained in constant communication with each other during their work shifts by signing in to a company-designated Google Hangout, a video chatting service. Editorial meetings took place in the Google Hangout several times a day.

Editorial priorities at Storyful largely followed stories that were dominating major national and international media on any given day. "We do not do anything unless there's already a conversation on the social web" (Little, 2014). Journalists have given particular consideration to topics and regions that were of interest to subscribers. When Witness joined, for example, Storyful journalists began to pay more attention to Latin America, a key region of interest for that organization.

Storyful sometimes also received requests from clients to investigate specific videos of interest.

Organizations that subscribed to Storyful accessed its content via an online dashboard, which included a breaking news ticker, a social media feed, and links to pages that were dedicated to news in particular geographic regions or on special topics, which changed over time. In November 2013, for instance, Storyful had a page devoted to updates about the digital currency Bitcoin. The page included three Twitter feeds that followed Bitcoin's devotees as well as analytics provided by the website Topsy, which showed how often Bitcoin was being mentioned on social media. A separate window showed Bitcoin-related conversations on the social media site Reddit.

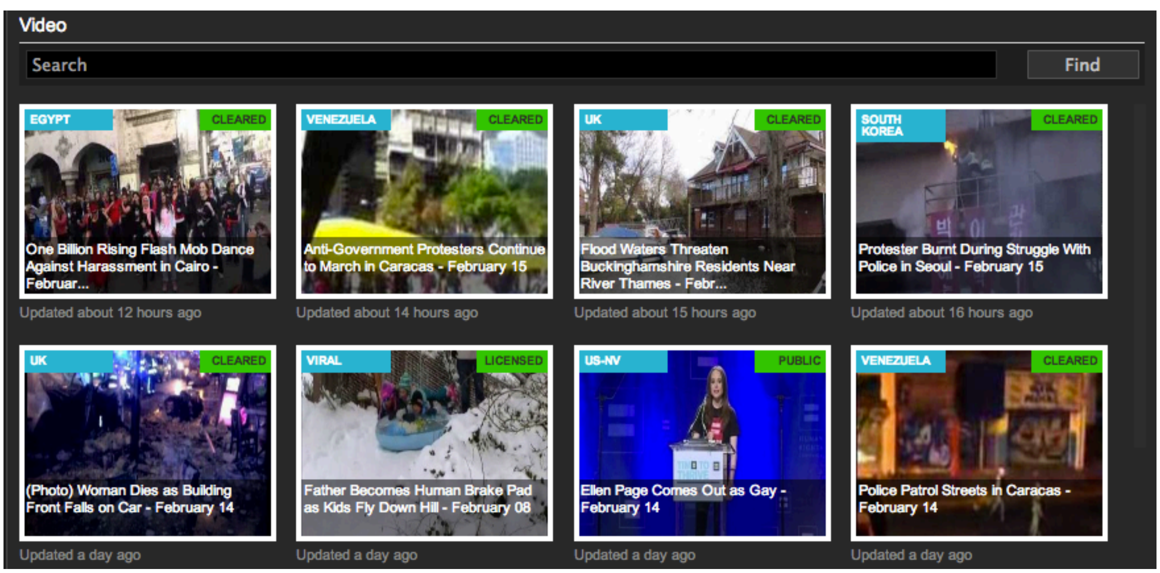


Figure 3.3. Sampling of videos available to Storyful clients.

Storyful's process for identifying newsworthy content has used algorithms and people. In 2013, Storyful was testing a program called Streamdesk that helped identify content that was attracting attention on multiple social media platforms, including Instagram, Facebook, Youtube, Vimeo, Liveleak, and Dailymotion. Storyful journalists also used 700 carefully curated Twitter lists to identify what was happening in particular areas. Lists are a function in Twitter that allows users to organize groups of people they want to follow, separate from their main feeds. Users may create lists to, for example, follow a particular group of friends, or people who work in a particular field, or people who have similar interests. Users may create their lists, or follow lists that others have made publicly available. Most of Storyful's Twitter lists have been organized by country. Every U.S. state has also had its own list, along with several major cities. During major news events, Storyful has often reshuffled the people it included on relevant Twitter lists in order to include users who were tweeting the most useful and timely information. Storyful's Boston Twitter list, for example, included users who were tweeting updates during the aftermath of the bombing at the city's marathon in 2013.

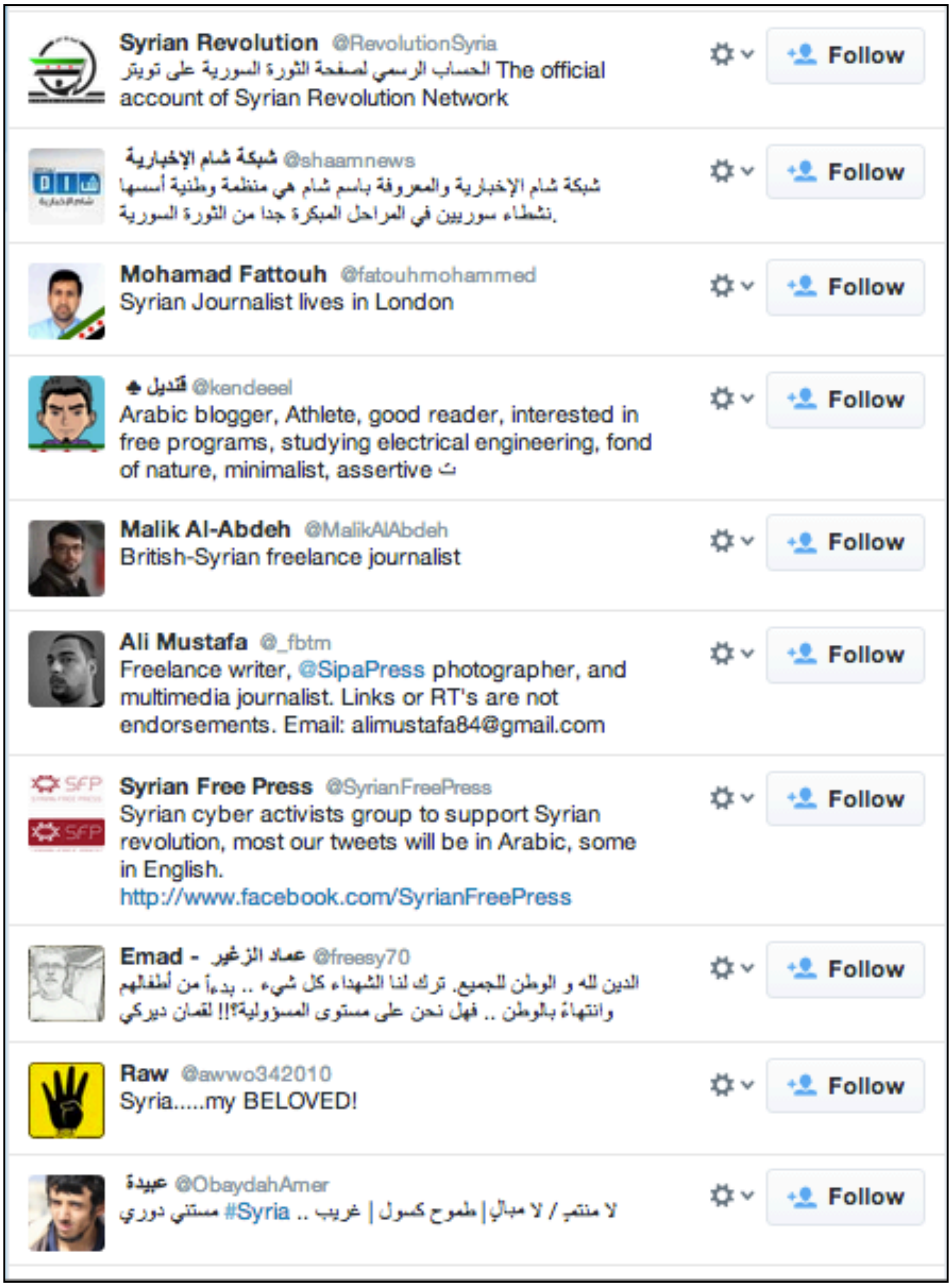


Figure 3.4. Profiles of some of the 285 users on Storyful's Twitter list for Syria.

When Storyful journalists found UGC that they deemed potentially newsworthy, they would begin investigating its veracity. (I will explain Storyful's verification process in more detail in chapter 5.) After deeming the content worthy of sharing with their news partners, Storyful journalists would assign it one of three categories: Pending, Contact, or Cleared. Pending indicated that Storyful had not been able to reach the person who posted the content. This designation was merely intended to give clients notice about the existence of the content; they were not supposed to use it until its uploader had granted permission. The Contact designation indicated that Storyful had found contact information for the uploader, but had not yet been granted permission to use it. A Cleared designation meant that the content could be used. Storyful told clients that they should always credit the content uploaders. Journalists were aware that clients sometimes did not.

Although Storyful originated as a wire service for hard news, its video licensing arrangements have also targeted content that was likely to go viral. Such videos have included "Bob the Pug Loves Willie Nelson," about a dog that whined on car trips unless Nelson's music was playing, and "Trombone Player Makes Huge Sneeze During Concert," which was much as described. As one Storyful journalist explained, "we deliver the broccoli and the cake" (personal communication, November 14, 2013)—the broccoli being news, and the viral content being cake.

News Corp acquired Storyful in December 2013 for roughly $25 million (News Corp, 2013). Storyful has continued to operate as a stand-alone organization, working with clients inside and outside its parent company.

Tools Created by Others for Journalists

Journalists have used other source-finding tools that were created by non-journalists. These tools have either been databases, like PIN; or social media aggregators, like Storyful. These tools differed, however, in that they were not created by journalists—nor were journalists the only kinds of clients they aimed to serve.

Databases

Public relations professionals have created databases that, like PIN, required users to register in order to indicate their willingness to be sources. Unlike PIN, their primary clients were other public relations professionals, not journalists. Although both Help a Reporter Out (HARO) and ProfNet pitched themselves as serving publicists who were looking for media exposure and journalists who were looking for sources, both organizations' revenue models depended on their popularity among their public relations clients.

Help a Reporter Out (HARO). HARO has been a matchmaking service for reporters and public relations professionals since 2007. It began as a Facebook group. Reporters posted requests for sources they hoped to find for stories they were working on, and public relations professionals would respond with potential leads. Once the group reached 1,200 members, which was Facebook's limit at the time, HARO became an email list. Instead of posting on Facebook, reporters entered their queries into a form on HARO's website, helpareporter.com. Anyone who wanted to receive the queries could register for free by submitting an email address on HARO's website. The queries were compiled into emails that were sent three times each weekday. Queries have followed a particular format, an example of which is below:

Summary: Are you a Boomer Caring for an Aging Parent?
Name: Reshma Kapadia (National Media Outlet)
Category: Business and Finance
Email: query-14u0@helpareporter.com
Media Outlet: National Media Outlet
Deadline: 04:00 PM EST - 19 April
Query:
Looking for Baby Boomers who are caring for their parents and trying to figure out how to financially make it happen and not compromise their own retirements or funding their childrens' education/needs. (HARO email, April 15, 2011)

The first line in the query, the summary, was essentially a headline for reporters to attract the interest of potential sources. Summary lines for all queries appeared together at the beginning of each email. Each summary line was a clickable link, allowing users to jump directly to particular queries. The category assigned to the example story above, Business and Finance, was among eleven that reporters could select. The others have been: Biotech and Healthcare, Education, Energy and Green Tech, Entertainment and Media, General, High Tech, Lifestyle and Fitness, Public Policy and Government, Sports, and Travel. The email address in the above query was a temporary one created by HARO; emails were automatically forwarded to a separate address that the journalist provided to HARO. The deadline provided in this example was four days after the query was distributed, which was relatively long; most asked for responses within 1-2 days.

In the example above, the author requested that the name of her media outlet be kept confidential. Sometimes, reporters also withheld their names. Reporters would disclose both to any sources they actually contacted. Reporters sometimes requested to keep such information in their queries in order to avoid a deluge of unwanted emails from aggressive PR professionals. Although reporters obviously wanted some responses to their queries, they often found themselves inundated with emails that contained no relevant leads but rather tried to push other types of sources on them. The temporary email addresses were another measure aimed at sparing reporters from marketing spam.

HARO was created by Peter Shankman. As a public relations professional himself, Shankman said he was frustrated when he was unable to help reporters connect with sources. The particular example he cited as inspiration for HARO was when a reporter asked him for help finding an expert on sub-Saharan Nigerian farming soil (Van Buskirk, 2009). In addition to public relations professional, Shankman has also described himself on his website, shankman.com, as an "Angel Investor," "Entrepreneur," and "Adventurist." His first job was actually in journalism; he was a Senior News Editor for AOL in 1995. Three years later, he switched to public relations. He has written books on marketing and social media, has invested in and served on the board of several high-tech startup companies, and traveled frequently for consulting and speaking engagements. He has also blogged and tweeted frequently, often about public relations topics or his "adventurist" hobbies, such as skydiving and running iron-man triathlons.

HARO's tone once strongly reflected Shankman's personality. The earliest versions of HARO's website included appeals for sources and reporters to participate in the interest of spreading "good Karma." When HARO moved to an email digest format, an advertisement appeared at the top that was written in Shankman's voice. The ads read like radio scripts. They were text-only, suggested or stated explicitly Shankman's endorsement of a particular product or service, and often related to marketing, social media, or the busy lives of professionals. This is one example:

> OpenChime.com is far and away the best place for local services. Without them, I don't know how I'd get around to making a half dozen phone calls and leaving as many voicemails for handymen, maid services, or gutter cleaners that'll never call me back anyway. Nowadays, I just tell http://www.openchime.com and they take it from there. (HARO email, March 15, 2011)

By 2009, the ads generated over $1 million annually for HARO (Van Buskirk, 2009). Rates for the advertisements ranged from $300 to $1,500 as of 2011 (Rafter, 2011). In 2010, HARO launched a second revenue stream: tiered packages of additional services for sources who wanted better access to reporters. Those services include the ability to filter queries by category and create profiles that reporters can search on the HARO website for potential sources. Other paid services included text message alerts and "head start" notices about new reporter queries. The testimonial-style ads have continued at the top of HARO emails, although Shankman left the company. He sold HARO in 2010 to the public relations firm Vocus.

Sources and journalists have had good things to say about HARO, although sources have offered more praise. Most testimonials on HARO's web page have come from people who found publicity through the service, rather than journalists. "Getting this kind of coverage is like winning the lottery," wrote one source. While some journalists have found HARO helpful, others have recounted horror stories of dealing with overly-aggressive publicists who contacted them through the service. Queries could lead to overwhelming numbers of responses, many of which did not relate to the information or sources journalists had requested. Some journalists also found that, although HARO assigned them a temporary email address, having their name in a query alone could help spammers find their permanent email addresses and flood them with more emails.

ProfNet. ProfNet has offered a connection between reporters and academic experts. ProfNet's original subscribers were media relations professionals at 130 colleges and universities. The service was particularly popular among smaller schools that struggled to compete with Ivy league and other top universities for media attention (DeLoughry, 1993). Subscribers have also included industrial research laboratories and government-funded scientific institutions (Bromley, 1995). The service later expanded to include public relations professionals who represented non-academic experts.

ProfNet launched in 1992 on the Internet service provider CompuServe. Its creator, Dan Forbush, was an associate vice president for university affairs at the State University of New York at Stony Brook. Forbush quit his university position to run ProfNet full-time, but then sold it to the public relations company PRNewswire in 1996. The service included about 7500 subscribers as of 2000 (Phan, 2000). In 2012, ProfNet launched a newsletter featuring lists of experts who were available to speak on timely issues.

Like HARO, ProfNet has been based around queries from journalists. Queries could be sent only to particular types of sources, such as activists, colleges and universities, and corporations. Queries could also be tailored to particular parts of the U.S., or to a few places outside the country, such as Canada and the UK. Public relations professionals then passed the queries along to people at their institutions who they felt might be qualified to respond.

Sources have paid fees to use ProfNet. Journalists and bloggers have been able to use the service for free. Journalists and bloggers have had to meet certain standards, however, in order to use the service—such as proof that they have been published before and that the stories about which they are querying will actually be produced.

Also like HARO, journalists have reported mixed results with ProfNet. The complaints have been similar: that the responses they received could be unhelpful, and that the volume they received could be difficult to sort through (Parsons & Johnson, 1996). Some journalists have also accused each other of using the database for "lazy journalism," cherry-picking source responses that fit into their preconceived narratives. "Where journalism gets really dangerous is when reporters go source shopping for someone to enforce — and not challenge — those preconceived notions and opinions," (Copeland, 2004) one journalist wrote.

Social Media Aggregators

Like Storyful, social media aggregators have allowed journalists to find UGC from multiple platforms, including Twitter, Instagram, and YouTube. Some aggregators have allowed users to search social media posts by location. Others have tried to detect trends in the use of particular words to give clients early warning of breaking events. These services have been of interest not only to journalists, but also to other clients, like emergency responders, marketers, and corporate investors.

Geofeedia. Geofeedia has offered a social media monitoring service based around particular locations. Paying subscribers could log in to Geofeedia's website and identify areas of interest on a map. By drawing circles or other shapes on the map, users would see icons pop up inside those shapes that represented recent social media posts in those locations. Users could sort through the posts individually as well as create continuously-updated feeds from those areas. Geofeedia pulled in UGC from six sources: Twitter, Instagram, YouTube, Flickr, Picasa, and Viddy.

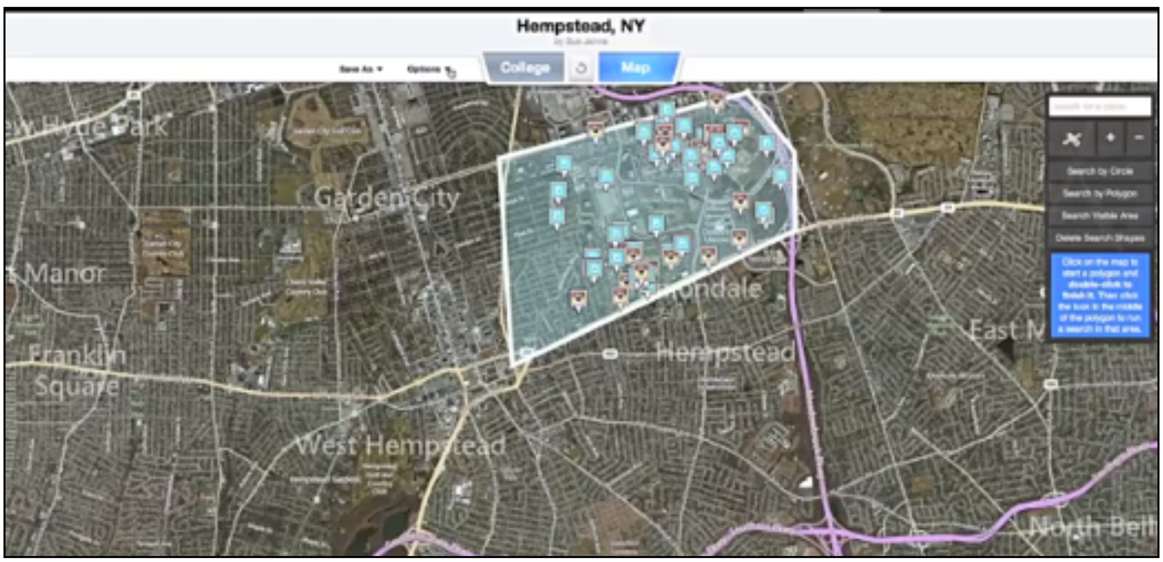


Figure 3.5. Geofeedia map display. Users could find social media posts in a given location by drawing boundaries around the area of interest. From geofeedia.com.

Geofeedia has found social media posts that had been tagged by location. That meant that they contained metadata that revealed where users had been when they made their posts. Some social media services allowed users to specify their latitudes and longitudes. Most mobile devices had a setting that, when activated, added location data to social media posts automatically. Most social media posts, however, have not contained location data. Estimates of the percent of location-tagged tweets have usually been in the single digits; the rate for Instagram posts has been much higher, around 40 percent (Vanden Breul, personal communication, September 25, 2013).

Founded in 2012, Geofeedia has been led by CEO Phil Harris, a longtime technology investor and one-time executive at the travel site Priceline. Geofeedia has been entirely subscription-based. At its launch, subscribers paid $1,450 per month for up to five users (Myers, 2012). A promotion Geofeedia offered in 2013 gave large newsrooms access for an annual fee of $6,000; smaller newsrooms paid $3,000 per year (Harris, 2013).

One of Geofeedia's strongest selling points has been its emphasis on visual content. Three of the social media platforms it draws upon (Instagram, Flickr, and Picasa) are primarily photo-sharing platforms. Instagram additionally has video content, as do YouTube and Viddy. Twitter may be best known as a text-based platform with its famous 140-character limit, but users share photos and video as well. In fact, a feature Twitter introduced in 2013 encouraged users to include visual media by displaying images in tweets themselves, rather than require users to click on a link to see the images. Tweets that included embedded images were more likely to be clicked on and retweeted (McDermott, 2013; Zarella, 2013).

News organizations have used Geofeedia largely in two ways: to find eyewitnesses to breaking stories and to gather UGC from planned events. After a 2012 shooting inside an Aurora, Colorado movie theater, one journalist created a feed of the area around the theater to gather information from people who were posting to their social media accounts. Another journalist used it to find photos that could provide confirmation of tornadoes that had hit Texas in 2012. Planned events that news organizations have covered using Geofeedia included Margaret Thatcher's funeral procession. Journalists with the BBC drew boundaries on Geofeedia's map around the procession route and gathered photos from people as they posted them online.

Journalists have not been Geofeedia's only clients. Other users have included law enforcement agencies, which have used Geofeedia to spot unusual social media activity that could warn of emergencies like crimes, fires and accidents. The Detroit Crime Commission used Geofeedia to monitor areas of the city with known gang activity, and to thwart potential disruptions to the 2012 World Series. Businesses have used Geofeedia to monitor social media in and around their properties to look for marketing opportunities or respond to problems. The South Dakota Department of Tourism used Geofeedia to track social media conversations around its major attractions, including the Mount Rushmore National Memorial, Badlands National Park and the World's Only Corn Palace.

Banjo. Banjo is in some ways a simpler version of Geofeedia. It is a free mobile application for Apple and Android devices.

Like Geofeedia, Banjo has allowed users to search for UGC by location. Users could enter a location anywhere in the world. The app displayed a map decorated with icons that represented recent social media posts in that location. Users could zoom in and out, drag the map to a different location, and select any of the icons to view their content. Results were limited to social media posts that contained geolocation data. That means that, like Geofeedia, results tended to be heavy on content from Instagram and Twitter. Unlike Geofeedia, Banjo also created an aggregated feed of geotagged social media posts by users' friends. Data for the friends feed came from Instagram, Foursquare, Twitter, Facebook, Google+, and LinkedIn.

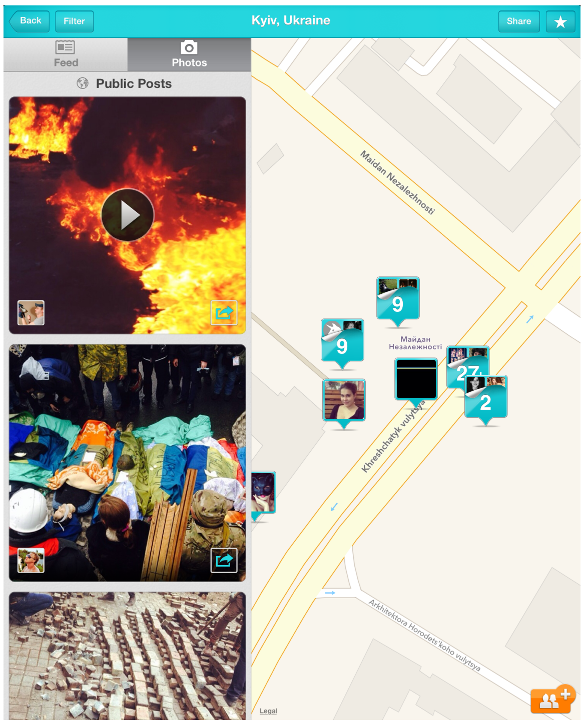


Figure 3.6. Banjo interface. Social media posts displayed are from Ukraine during anti-government protests, February 2014.

As the friends feed might suggest, Banjo has targeted individual customers more than organizations. CEO Damien Patton said he was inspired by a missed connection at an airport; he and a friend both happened to be in Boston on a layover, but because they were using different social media platforms, neither knew the other was there. Patton has also said that Banjo aimed to make "emotional" connections across distance (Bloomberg TV, 2013), allowing users to experience far-away happenings through the eyes of their friends. Banjo has also curated its own feeds of geotagged and non-geotagged social media posts from large entertainment events, like sports games, concerts, and conferences.

Banjo was also unlike Geofeedia in its emphasis on the present. While both tools could be used to find UGC at the scene of breaking news events, Geofeedia also allows for some searching of the recent past. Geofeedia users could search up to seven days in the past (and further by request). Banjo's mobile apps also did not allow users to refine their searches by keyword.

Dataminr. Founded in 2009, Dataminr's customers have been largely in the financial or government sectors. The company's website has boasted that the service can alert clients to breaking news events in advance of mainstream news providers. Its approach has included algorithms that flag unusual activity on Twitter but also "merging Tweets with third-party and client proprietary data to perform multi-variable event detection" (Dataminr, 2012). Dataminr's algorithms have used more than 30 variables to determine whether a tweet is newsworthy (Timms, 2013). Such an early warning system can benefit real-time traders, whose profits can depend on knowing something even just a few seconds ahead of competitors. Dataminr has had a partnership with Twitter that allows the company access to the full "firehose" of tweets, a level of access that has only been granted to a handful of other companies.

News that Dataminr broke to its clients included the death of Osama bin Laden in 2011. Dataminr CEO Ted Bailey said his company sent clients an alert about the death roughly 20 minutes before newswires published the story. Dataminr's alert was based on an analysis of 19 tweets on the evening of May 1, 2011. Bailey said the alert was triggered partly because of volume—the typical number of bin Laden-related tweets during that period of time had been three, so 19 was a major deviation. Dataminr also based its determination on sentiment analysis, or "how many words and phrases within this sudden swell were indicative of an intense emotional reaction towards the subject at hand" (Bailey, 2011). Dataminr's alert was also triggered in part due to a linguistic analysis of the tweets—specifically, the fact that so many of the tweets that mentioned bin Laden also mentioned death. Stock markets climbed briefly after news of the death, then receded after less than a day.

Other news events for which Dataminr has claimed it beat news outlets included a shooting at the U.S. Capitol in October 2013. The S&P Index dropped soon after the shooting. Dataminr also notified clients of Blackberry's November 2013 announcement that the mobile device company would hire a new CEO rather than continue to seek a buyer. In this case, Dataminr did not exactly break the story, even though its alert system may have been responsible for spreading this news quickly among investors. However Dataminr was actually tipped off about the Blackberry announcement by a tweet from a traditional news organization: *The Globe and Mail*.

Other Digital Search Tools

Journalists have also used social media and Internet search engines to look for sources. Social media is a "nebulous term" (Hermida, 2012) but it has included platforms for which "users are central to both the content and form of all material and resources" (Hardey, 2007, p. 869) and have tended to include features like user profiles, friends lists, and comments (boyd, 2007).

Twitter

Twitter was the most popular social media platform among journalists I interviewed. Twitter was created in 2006 by Jack Dorsey and other developers who were looking for a new project as their podcasting startup failed. Twitter has sometimes been called a "microblogging" service. Users may post only up to 140 characters at a time. Users may "follow" other users, meaning that they will see their status updates as part of a continuously-updated feed. Users may send messages to other users by "mentioning" them, meaning that they include an "@" symbol before their usernames. Users also sometimes use hashtags in their tweets; essentially, this means an "#" symbol followed by a keyword. Hashtags can help users search for people who are tweeting about the same topic.

In 2011, Twitter launched a guide for journalists. Recommendations have included: "tweet your beat," "use hashtags for context," "cite your sources," and "share what you're reading" (Luckie, 2012). As those recommendations might suggest, many journalists have used Twitter for self-promotion more than reporting.

Facebook

Journalists believed Facebook to be a better tool than Twitter for learning about potential news subjects. Many more people simply had Facebook accounts. Seventy-one percent of adults who were online in 2013 said they used Facebook, compared to 18 percent who used Twitter (Duggan & Smith, 2013). Facebook has reported having 1.23 billion users as of 2013. Facebook also appealed to journalists because user profiles could also be more revealing than those on Twitter. Twitter profiles were limited to 160 characters and might also have a photo, a location, and a website. Facebook profile pages could contain that information and more, including current and former occupations, schools attended, places visited, and preferences in areas such as music, books, and sports teams. Facebook could also be more useful for finding personal connections. Facebook users had "friends," a status that required agreement from both parties, while Twitter had the less personal "followers." Anyone could follow anyone on Twitter, unless users blocked them from doing so.

Facebook's history has been well-documented, in particular by the 2010 film "The Social Network," which was based on the 2009 book *The Accidental Billionaires*. CEO Mark Zuckerberg began Facebook in 2004 in his Harvard University dorm room. It first included only Harvard students, then expanded to other schools, and became open to the general public in 2006. In 2011, Facebook hired a journalist program manager to help promote the platform's potential for news gathering. Facebook has allowed journalists to set up pages separate from their personal sites that were dedicated to their work. It also launched a Journalists on Facebook group, on which moderators have regularly posted messages highlighting examples of ways that journalists have used Facebook in their work.

Some journalists I interviewed said that they found Facebook was less useful for reporting than it once was. They said more users had put more of their personal information behind privacy walls. Facebook also began charging users a dollar if they wanted to send messages to people with whom they were not "friends." Journalists said they had sometimes paid the fee, but were more likely to try to contact sources some other way.

Other Tools

Some journalists said they had used other social media platforms as well, but less often. LinkedIn is a site geared toward professionals and job-seekers. It has regularly held phone and online tutorials for journalists to recommend ways that they could use the platform in their reporting. LinkedIn even offered a free one-year Premium account as an incentive for journalists to participate. Several journalists I interviewed had taken the tutorials, but few said they had ever used their LinkedIn accounts for reporting. Other social media platforms that were mentioned in my interviews with beat journalists, but were rarely used, included Instagram and Pinterest.

In this chapter, I have introduced several kinds of digital tools that journalists have used to find sources. These have included tools that journalists have created themselves for the purpose of finding real people, or objects that were created by real people who had witnessed news events. Other tools have included databases that were created by public relations professionals primarily to help potential sources attract the attention of journalists. Social media aggregators allowed journalists and others to search multiple platforms for posts that were in specific geographic areas, or about similar topics. Finally, journalists used well-known social media platforms like Twitter and Facebook, although they often used them for other purposes besides news gathering.

Different tools drew from different pools of potential sources. Databases like PIN, HARO and ProfNet required that sources register with them first. That meant that sources first had to become aware that the databases existed, and then decide to join them. Other tools drew sources from the pool of social media users, and had a particular preference for users who uploaded visual content and enabled location services on their social media posts.

Journalists have used these tools in different ways. In the following chapters, I will describe in more detail how they have used these tools, which sources they have found, how they determined whether sources were credible, and which sources remained difficult to find.

CHAPTER 4: FINDING SOURCES

Journalists in the digital age have more powerful search tools available to them than they did before. So how have they used their increased search power to find information?

The journalists I interviewed and observed tended to use digital search tools to follow and research pre-defined sources. Journalists monitored the usual suspects, watching their latest movements and statements. They also kept track of other journalists, to check up on their competition as well as socialize. Journalists also used digital search tools to research real people whose names or locations made them attractive as potential news sources. In other words, journalists generally used digital search tools to gather data about people whose roles in potential stories had already been determined. The extent to which real people were "findable" to journalists shaped how they were portrayed in news stories, or if they were mentioned at all.

One search tool, the Public Insight Network, was intended to be used differently. American Public Media promoted PIN as a story discovery tool—one that journalists were supposed to use when they were still trying to figure out what their stories were about. PIN was aimed at tapping the experiential knowledge of anyone who was willing to share it with journalists. PIN's creators and administrators wanted the database to help lead journalists in new directions, to unearth stories and sources that would have otherwise been difficult to find.

PIN faced several challenges. The most significant was resistance from journalists who found that using PIN required not just learning how to use a new tool, but also changing their reporting processes. Newsrooms and individual journalists who had hoped that PIN would simply help them work faster were disappointed. PIN did not speed up their existing workflows; it disrupted them. Newsrooms where PIN thrived saw the tool as less of a disruption.

Competing News Values: Speed and Originality

Digital search tools have been great at answering relatively simple questions. Who was president in 1922? Where's the nearest Mexican restaurant? How do I fix my bicycle?

Journalists have also tended to use digital search tools to answer simple questions. They might ask: what did the mayor do today? Who's at the scene of this natural disaster? Where does this accused criminal work?

Searching for answers to more complex questions has been harder. How can health care be provided more fairly? How can we stop kids from bullying each other? What questions have journalists not even thought to ask because of gaps in their knowledge? These are the types of searches "during which you do not know what you are looking for but will recognize it when you find it" (Stark, 2009, p. 1). Digital search tools, while constantly growing more sophisticated, have not provided satisfactory answers to questions of this complexity.

And yet, it has been complex questions that journalists have been most interested in answering. During my interviews with beat journalists, I asked them to identify stories—any stories, not just the ones in our sample—that they had most enjoyed reporting. To my surprise, none cited breaking news stories, despite "the adrenaline rush that comes only from deranged pilots, hurricanes, upset victories in baseball or politics, triumphs against all odds, tragedy or reversal in the lap of luxury, and other unplanned and unanticipated scandals, accidents, mishaps, gaffes, embarrassments, and wonders" (Schudson, 2008b, p. 55-56). Almost all journalists instead cited stories that required deep sourcing, analysis, and, importantly—time.

> "This totally is my favorite kind of story: where I can add information to the conversation that would not have been otherwise unearthed."
> "The story is very thorough with reactions from all involved."
> "It's an analytical look at a conflict that we usually cover on a day-to-day basis. It goes deeper."

Some journalists struggled to come up with any examples of stories they had enjoyed reporting. They said the pressures of their daily assignments prevented them from reporting stories that they really wanted to cover. Their inability to think of examples was further evidence that journalists most valued stories that required time—and many of them did not have time.

In addition to stories that were deeply sourced and analytical, journalists also valued those that they believed could correct injustices that were committed against vulnerable people.

> "[It was the] type of story that could have an impact and hopefully sheds light on something that was in the dark for way too long."
> "What I love about this kind of reporting is not only the investigative part, it's the exposure of criminals and the ability to right the wrongs."

> "Long story short, the kid is getting a new wheelchair from the donations of many of the [newspaper's] readers."

Phillips (2010a) also found that journalists valued deeply reported stories. She asked journalists about stories they had written that they felt were "important." Stories they identified were "ones which they had found themselves, which were original and usually followed up with a considerable amount of research" (2010a, p. 91). Their reasons for valuing original reporting were based on a desire to differentiate themselves from their peers and to advance their careers, which could lead to greater professional autonomy in the future. Having a reputation for digging up important stories led to more opportunities to dig up important stories.

If journalists valued these types of stories so much, why did they so rarely write them? Boczkowski (2010) found that the digital age brought with it increasing pressure for journalists to produce greater numbers of stories in less time. He also noted that, while the overall number of stories had increased, reporting had also become more homogenized. Newsrooms strove to match all stories that their competitors had, as well as do their own original stories. To do this, they constantly monitored their competitors and quickly duplicated any stories that they had missed. In the Argentinian newsroom Boczkowski observed, journalists in the Ultimo Momento, or Latest Moment division, were expected to write stories in half an hour or less. But he also found that newsrooms continued to employ some journalists who covered non-routine stories. Ultimo Momento journalists were evaluated based on speed; journalists in the non-routine news division Conexiones (Connections), were evaluated based on originality.

The newsrooms I observed were similar in that they also valued both speed and originality. Sociologists Luc Boltanski and Laurent Thevenot (1999) might define these as two values as competing "orders of worth." These "orders" are essentially value systems that have been used to justify judgments and actions. Orders of worth that Boltanski and Thevenot identified included "market," which was determined based on price, "industrial," which valued efficiency or productivity, and "inspired," which was based on "grace, nonconformity, creativeness" (p. 368). A starving artist, for example, could be valued highly according to the "inspired" order of worth, but not on the "market" order. Different orders of worth could operate simultaneously—and conflict. For example, the starving artist's landlord may value the originality of her art, but not be so impressed by her late rent payments.

In many newsrooms, speed and originality have operated as competing orders of worth. Writing stories that are both speedy and original has been difficult; it calls to mind the adage popular among engineers: "fast, good, cheap: pick two." But although operating under multiple orders of worth is difficult, Boltanski and Thevenot have suggested that it is possible, if people are flexible enough to move among different orders in order to suit different situations. "The persons must have the ability to ignore or forget, when they are in a given situation, the principles on which they have grounded their justifications in the other situations in which they have been involved" (p. 365). Being able to operate among different orders of worth does not resolve the fundamental disagreement over which value system should prevail, but it can allow the parties involved to compromise and move on.

Economic sociologist David Stark has written that the friction from competing value systems can itself be valuable. When situations arise in which the parties involved become cognizant of the clash between competing value systems, it can prompt a re-examination of the "traditions, conventions, and institutionalized customs" (2009, p. 32) that they once took for granted. Organizations that successfully manage multiple orders of worth are what Stark has called "heterarchies," networked structures with distributed systems of measuring performance. Heterarchies are accountable to each other, rather than to a single leader. Their flattened structures can encourage flexibility, diversity, innovation, and entrepreneurship.

Although many newsrooms have valued both speed and originality, speed has tended to dominate. Most journalists I interviewed said that they were expected to produce a certain number of stories every day or every week. They could pursue longer stories only if they had time. Helena said her newspaper had recently undergone major staff reductions, which pushed her to write even faster. "My workload kind of doubled, would be the best way to put it… I wouldn't normally do these stories," she said of the five that we discussed during her interview. "I guess I'm trying to say is these are easier stories to write, time-wise" (personal communication, September 9, 2013). Another journalist, Brenda, said that she tended to work on a longer story each August; she had more free time then because most of the usual suspects she covered in her daily assignments went on vacation.

Since speed tended to be valued more than originality, it made sense that most journalists I interviewed and observed used digital search tools based on strategies that they thought would help them find information and sources quickly. Finding information quickly was more important than finding information and sources that were original.

Quick Searches: Monitoring and Directed Research

Journalists most often used digital search tools to gather data on specific people who they could identify by name or location. Most often, this meant the usual suspects. Journalists would monitor the usual suspects, tracking their latest activities and statements. Journalists also tracked each other to see what their competitors were doing, as well as to confer and joke with one another. Finally, journalists used digital search tools to gather data on real people whose names had popped up in the news, or who were potential eyewitnesses at the scenes of breaking news events.

Monitoring the Usual Suspects

Some usual suspects were important enough that anything they did or said could be newsworthy. Social media provided opportunities for journalists to keep up with what the usual suspects were doing or saying.

Many journalists I observed and interviewed had Twitter accounts and used them frequently. Journalists used their Twitter feeds as news tickers based around the usual suspects as well as other people who were associated with them, such as spokespeople and family members. This was particularly true for journalists who covered politics, since politicians and their staff members were active on Twitter and often used it to communicate with constituents. Tweets from politicians and their staff members could signal that news was about to happen. Or tweets could themselves be news, if they were provocative. One such tweet occurred during an event that Sabrina was covering. A politician, who in the past had accused a rival of moral failings, suggested during a speech that the two of them had made up. He said that he would even be comfortable letting the rival babysit his children. Sabrina said this statement from the politician might have otherwise generated little attention—but then his wife tweeted in response.

> She tweeted no, not with my kid. And the way that she did it—really fast, and [the politician] also retweeted it, I mean it was kind of, it was clearly trying to recover from this kind of blunder… everyone was tweeting the babysitting thing. It was totally going to be the moment that was remembered... and it was. It was like the headline of every tabloid article. (personal communication, September 1, 2013)

The fact that the politician's wife responded instantly and in public made the moment more newsworthy. It added elements of conflict—between the wife and her husband, as well as the wife and the political rival—that added drama to an otherwise routine story. News stories about the event ended up focusing on the babysitting blunder rather than the issue that the politician had actually wanted to discuss.

Journalists also monitored the Facebook activities of the usual suspects. In one newsroom I observed, journalists did a story on two lawmakers who had joined a Facebook group that called for impeaching the state's governor. Journalists at first debated whether to pursue the story; one argued that Facebook users could be added to groups without their knowledge. Their editor argued, however, that lawmakers needed to be responsible for their public images, including on Facebook. He said the politicians should have known that they had been added to the group and removed themselves if they disagreed with its premise. The news organization did the story. (Both lawmakers claimed to have been unaware that they were in the group. One removed himself from it before the story was published; the second said he would remove himself if he could figure out how.)

Monitoring Other Journalists

Journalists on Twitter mostly followed politicians and other usual suspects—but they also followed other journalists. Keeping tabs on their rivals helped journalists see when they had missed stories. They also followed journalists to keep up with the news in general, to learn from each other, and to socialize with each other.

This type of surveillance was not entirely new; journalists had monitored each other in the past (Boczkowski, 2010; Boyd, 1997). But continuously-flowing updates on Twitter and elsewhere online kept journalists constantly on their toes. For instance, Andrea once woke up on a Saturday morning to see on her Twitter feed that other reporters on her beat were discussing an announcement that she had missed:

> This was actually a really bad situation for me, because everyone had this. Not everyone, but a lot of our competitors had this story, and I couldn't get it verified myself. So after, maybe like let's say three prominent, you know, like papers, or like websites, or something like that, you're like, all right, this has

> to be true. We need to also have a story, even if we don't really, technically have a story ourselves. (personal communication, September 21, 2013)

By noon, Andrea had written a story for her newspaper's website that was based on the three stories by her competitors that she had seen online.

Journalists also followed each other on Twitter in order to learn from their "competitor-colleagues" (Tunstall, 1971) and confer with other reporters on their beats. Andrea said conversations on Twitter could shape her reporting:

> That's something that I feel now is like a huge part in the way I see stories. And the way my colleagues are seeing them on Twitter. You know, so you're interacting with each other on Twitter, too. They're like bouncing ideas or observations off of each other… if there's reporters that I trust, and they're seeing things a certain way, it helps me to realize that I might not have immediately realized, you know, like, that was going on. Or that this was important in the speech. (personal communication, September 21, 2013)

In a sense, Twitter had become a 21st century home for "pack journalism" (Crouse, 1974)—the practice of journalists who, despite working for competing organizations, conferred during the reporting process and wrote articles with similar frames. Crouse wrote that many reporters he followed during the 1972 presidential campaign took cues from AP reporter Walter Mears when they were trying to decide how to frame their stories. "Two other reporters, one from New York, another from Chicago, headed toward Mears shouting, 'Lead? Lead?' [*Boston Globe* reporter] Marty Nolan came at him from another direction. 'Walter, Walter, what's our lead?'" (1974, p. 22). Historian Robert Darnton wrote that he similarly conferred with reporters in his "sub-group" (1975, p. 180) when he wrote for the *Newark Star Ledger* and *New York Times* in the 1960s.

Journalists I observed on Twitter were not as overt as the "boys" had been about seeking advice on leads. Often, however, they did not have to ask. Journalists made it clear how they planned to frame their articles by "live-tweeting" the events they covered, essentially using Twitter as a reporter's notebook. In fact, some journalists, have explicitly recommended using Twitter for this purpose. Among them has been Steve Buttry, a longtime news editor who has frequently blogged about best practices for journalists in the digital age. "Live-tweeting and taking thorough notes probably won't work well together unless you're an excellent multi-tasker. Cutting and pasting quotes and some narration from your tweets will actually make the writing go quicker" (2011). In other words, using Twitter to take notes allowed journalists to simplify the constant juggling act known as "backpack reporting," or being a "one-man band." Backpack reporting required journalists to use multiple tools as they covered events, such as notepads, smartphones, video cameras, still cameras, and audio recorders. Using Twitter for note-taking allowed them at least to get rid of the pen and paper.

I examined the extent to which journalists revealed their story frames on Twitter by observing their tweets during the 2013 New York City mayoral campaign. Specifically, I reviewed the tweets of journalists who often covered campaign events.[5] Their tweets often revealed points that ended up in the articles they wrote afterward. Often, a predominance of tweets by many reporters on a particular topic suggested a common frame for their articles. For example, Democratic mayoral

[5] I mostly followed journalists who worked for newspapers and online-only sites, including the *New York Times*, the *New York Daily News*, the *New York Post*, *Newsday*, the *Wall Street Journal*, the Associated Press, Capital New York, Crain's New York, and Politicker.

nominee Bill de Blasio (who would eventually win the election) gave a speech to business leaders during which he called himself a "fiscal conservative." The line was heavily tweeted by journalists who were covering the speech.

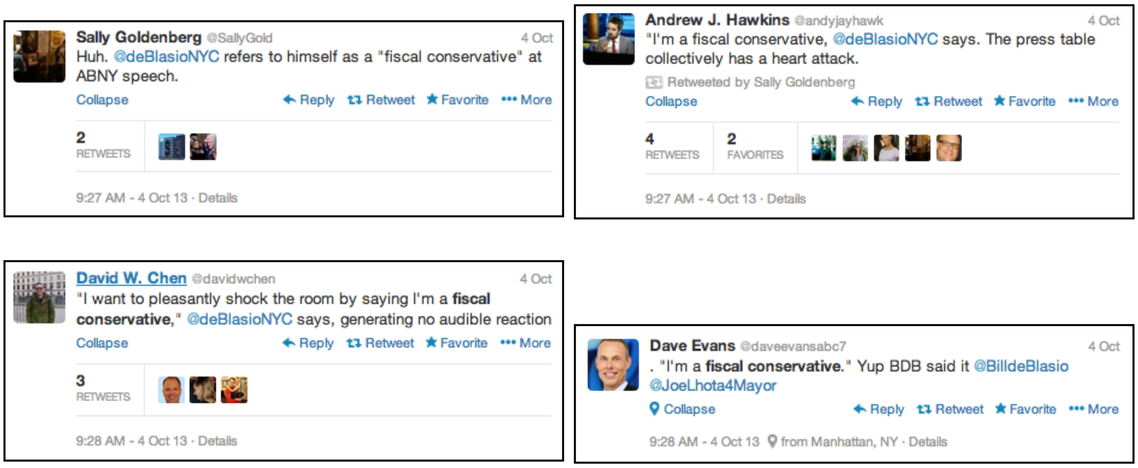


Figure 4.1. Journalists' tweets in response to "fiscal conservative" statement.

Sure enough, de Blasio's "fiscal conservative" claim dominated the next day's headlines.

> *New York Daily News*: "Bill de Blasio Calls Himself a 'Fiscal Conservative' in Front of Audience That Frowned on Liberal Ideas"
> *New York Post:* "Bill de Blasio: I'm a Conservative"
> *Wall Street Journal*: "De Blasio: 'I'm a Fiscal Conservative'"
> Bloomberg News: "De Blasio Says He's a 'Fiscal Conservative' Raising NYC Taxes"
> Crain's Insider: "De Blasio Calls Himself a 'Fiscal Conservative'"
> CBS New York: "De Blasio Labels Himself 'Fiscal Conservative' In Speech To Business Leaders"
> Capital New York: "New York Business Group Applauds Fiscal Conservative Bill de Blasio" (October 5, 2013)

Not all journalists who tweeted about the claim ended up writing about it. Neither David W. Chen with the *New York Times* nor Dave Evans with the local television station WABC wrote about de Blasio's speech at all. The fact that so many other journalists did, however, and that most of those journalists also followed each other on Twitter, suggested a type of conferral that was similar to what Crouse had observed in the 1970s. Journalists who tweeted about the "fiscal conservative" line were not asking each other whether they intended to make it the focus of their articles, but the fact that so many of them tweeted about it signaled to each other that they thought it was important. They were using Twitter as their reporters' notebooks, and they were allowing each other to look at their notes.

A heavily-tweeted observation or quote would find its way into articles even when it was on a tangential topic. That occurred during the final debate between de Blasio and the Republican nominee, Joe Lhota. A comment Lhota made toward the end of the debate became a major focus of journalistic coverage, even though it was not policy-related and came at a time when few people were still watching. The local NBC affiliate had already ceased its broadcast of the debate (a cable channel was still airing the last half hour of it), and Game 6 of the World Series (which turned out to be the deciding game for the Boston Red Sox) had begun.

During those last, little-watched minutes of the final debate, Lhota decided to try out an analogy that he thought fit his underdog status in the mayoral contest. Lhota likened himself to the Sylvester Stallone character Rocky Balboa in the movie "Rocky IV." He compared de Blasio to Ivan Drago, Rocky's Soviet opponent in the film. Journalists, who just a few minutes earlier had been complaining on Twitter about the length of the debate and the fact that it overlapped with the baseball game, suddenly began to howl (or, in Twitter parlance, perhaps they "twowled"):

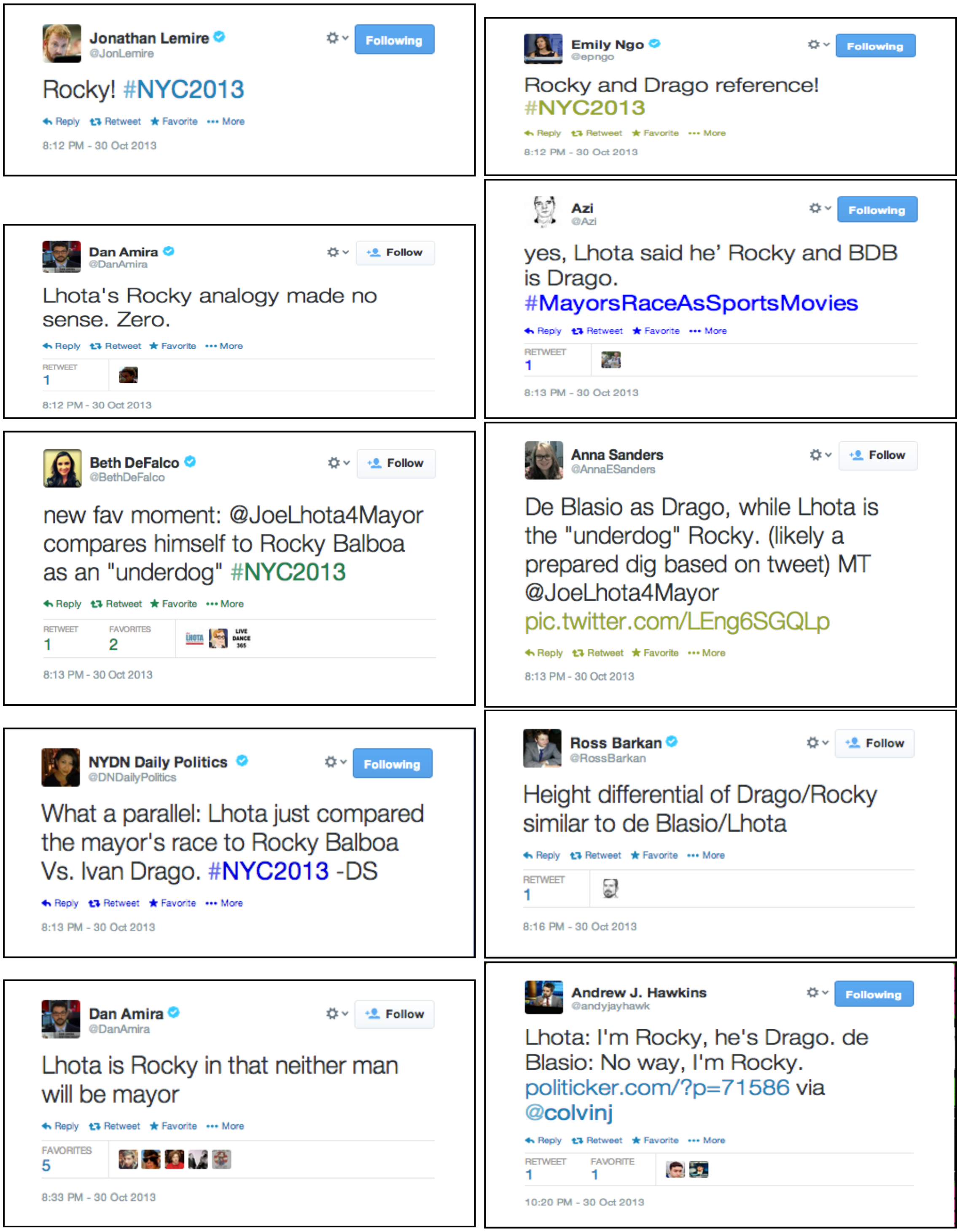


Figure 4.2. Tweets in response to Lhota's "Rocky" reference.

Many of the following day's headlines also referenced the Rocky line.

New York Post: Mayoral race like ‘Rocky IV’

Wall Street Journal: NYC Mayoral Debate: Joe Lhota Compares Himself to Rocky
Bloomberg News: Lhota Says He's Underdog 'Rocky' in NYC Against De Blasio
Gothamist: Final Debate: Lhota Is Rocky, De Blasio Is A Commie Boxer With Amazing Hair
NY1: Lhota Likens Himself To Rocky Balboa In Final Mayoral Debate
DNAInfo: Lhota Compares Himself to 'Rocky' in Battle for Mayor

Some news organizations made more subtle allusions to the "Rocky" line. *Metro*, a free daily, ran the headline: "Joe Lhota takes final swings at Bill de Blasio during last debate of mayor's race." And even news organizations that did not include Rocky references in their headlines, such as the *New York Times*, *New York Daily News*, and *Newsday*, still mentioned the analogy in the body of their articles.

As some of the Rocky-related tweets might suggest, Twitter has functioned for journalists not just as a notebook but also as a place to joke around. Twitter has served as what Goffman called a "backstage" (1959, p. 170): a place where people who were on the same "team" could poke fun at others who were not on the team. Journalists, even those who were direct competitors, could see themselves as part of a team in the sense that they were all members of the same profession; they were often united by a common adversarial stance against people they covered (Clayman & Heritage, 2002). Conversations among journalists on Twitter thus could function as a backstage for the journalist "team," especially while events they were covering were underway. Reporters Crouse observed who wanted to joke during live news events could not do so silently, as journalists now can on Twitter. However, Crouse described one news event during which journalists did have a semi-private backstage. During a local television station's interview with George McGovern, other reporters were allowed to watch from a separate room. They took the opportunity to chat amongst themselves while the interview was underway.

> "Who are your heroes?" the newscaster asked McGovern.
> "General Patton!" shouted Jim Naughton of the *Times*.
> "Thomas Jefferson and Abraham Lincoln," said McGovern.
> "What do you think of the death penalty?" asked the newscaster.
> "I'm against the death penalty." There was a long pause. "That is my judgment," McGovern said, and lapsed into a heavy, terminal silence. The press laughed at McGovern's discomfiture. (1974, p. 17-18)

Although journalists have treated Twitter as a backstage, it might as well have had a transparent curtain. Twitter has not been a private space, except for users who tweeted from protected accounts. The jokes and other chatter of journalists have thus been visible to anyone who looked for them. Other Twitter users could also join in on their conversations. In the example below, journalist Sally Goldenberg's tweet about de Blasio's "fiscal conservative" claim attracted responses from a former New York City Council member; a press officer for a state lawmaker; and a person whose occupation was unclear, describing himself in his Twitter profile as "Helping people navigate the challenges of life while networking them to the best resources available."

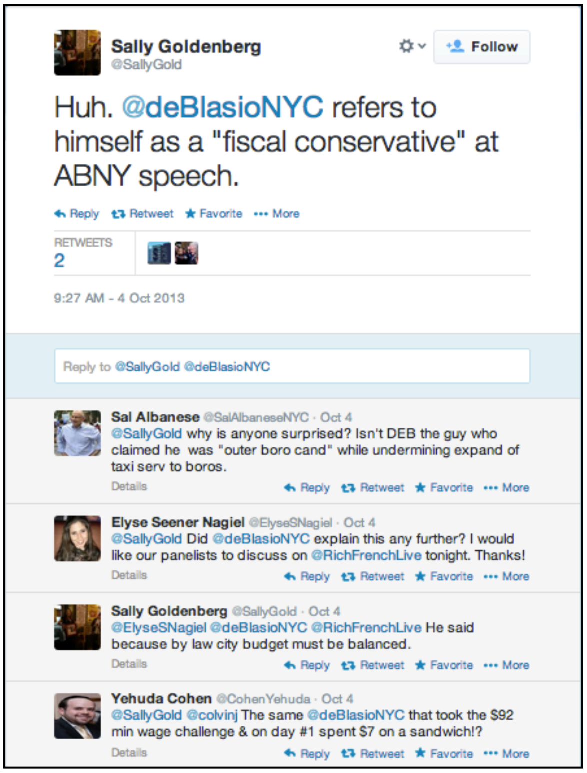


Figure 4.3. Journalist's tweet with responses below.

Comments from journalists that might have been acceptable in a closed backstage could be controversial in the open one that has existed on Twitter. One journalist I interviewed said that she resisted tweeting altogether because she believed that reporters were too "snarky." She said she was concerned that journalists, in their attempts to entertain each other and whoever else might be reading, veered too far away from straight reporting and into the realm of commentary. Many news organizations and observers have advised that journalists be less formal on Twitter than they would in their reporting, in order to attract more followers (Friedman, 2012). One study found that nearly a quarter of journalists on Twitter told jokes (Holton & Lewis, 2011). But journalists who have been less guarded on Twitter have put themselves at risk. The *Arizona Daily Star* fired reporter Brian Pederson in 2010 for comments he made on Twitter that criticized the newspaper and joked about Tucson's homicide rate (Schuster, 2011). CNN fired Octavia Nasr, its senior editor for Middle East affairs, after she tweeted that she was sad to hear of the death of Shiite cleric Sayyed Mohammed Hussein Fadlallah. "One of Hezbollah's giants I respect a lot," she said in her tweet. A CNN spokesman said Nasr's tweet was an "error of judgment" that did not meet the network's editorial standards (Stelter, 2010).

Researching Real People

Journalists used digital search tools to research real people whom they could identify—either by name, or by other attributes such as their locations. Searches that were less specific tended not to work. Several journalists I interviewed had made open calls for sources on social media. Most, including Abe, said they had little success. "I'm often surprised that, I'll put out calls on Facebook, does anybody know anybody, who, you know, recently bought a something. Or is doing this. And that has never worked out for me" (personal communication, September 10, 2013). Abe was particularly surprised by the lack of response on Facebook, because he had a public page that identified him as a newspaper reporter. He had more than 1,000 friends, including people he knew well but also others he did not. "So it's not like reaching out to my own network of friends," he said. "So I always felt like oh, that'll find people. But it hasn't happened" (personal communication, September 10, 2013).

Nor were many journalists satisfied with broad-based searches on Twitter. Eve said, “it's definitely an interesting tool. It's just, you know, how much time can you spend when you've gotta make calls and read and do reporting and things like that?" (personal communication, September 24, 2013). Eve had tried to search Twitter for new story ideas and sources but felt she lacked direction; she got little return for the time she spent on it.

But if journalists had a name of a real person about whom they wanted to know more, they would gather as much data as they could about that person online. The amount and type of data they found could determine whether those people ended up in the news at all. Brenda said information that she found online about a pot-bellied pig influenced her decision to write about it. The pig was at the center of a landlord-tenant dispute, which she said were normally of little interest. But based on what she learned about the pig and its owner, she thought it had potential.

> So you Google the woman's name, then you look for Bobby the Pig, and you find this chubby thing, and it matches up with the plaintiff's name… and everything came together. And you got confirmation from the neighbor. Yeah, that's Bobby. Yeah, and he has a Twitter account too. And you're like, *what*? What is he tweeting about? (personal communication, September 13, 2013)

Brenda's ability to gather data on the pig and its owner, including photos and text that had been posted on social media sites, prompted her to pitch her editors on the story. The data also allowed her to fill in details about the case when she was unable to interview the parties involved. The pig's owner, and the pig itself, were out of town at the time Brenda reported the story.

Journalists would also conduct location searches to find real people who were eyewitnesses to breaking news. Journalists could search by location in different ways. Many social media sites offered general location information, such as where particular users lived or worked. Facebook's Graph Search allowed users to find friends who had lived in or visited particular locations. LinkedIn users could search a particular company's employees by country. And searching for social media posts that had been geotagged could help locate people who were at the scenes of accidents, crimes, and natural disasters while they were unfolding.

Geotagging can be done manually or automatically. Facebook posts offered a manual option. Users who opted to add a location to their posts could choose from a drop-down list that included several possible options based on where Facebook believed those users to be. Users could also enter locations that were not on the list. Facebook users who used the mobile version of the platform and enabled location services on their devices might see lists of places that were a more precise match to their actual locations.

Figure 4.4. Locations options offered by Facebook. At left are options for laptop user with hometown of "New York, NY." At right are options offered to iPad user in Brooklyn with location services enabled.

While manually geotagged posts could be useful, journalists saw automatic geotagging as more credible. Mobile users who enabled location services on their devices automatically had geotags added to their posts on platforms like Instagram and Twitter. The tags included their latitudes and longitudes. While this geodata was not always visible to other users, in many cases it was not difficult to find. Twitter users could find geodata by accessing the platform's API, or by clicking on individual posts that indicated they had been geotagged. The symbol at the bottom of the tweet below next to the words "from Ukraine," for example, indicated that it had been geotagged.

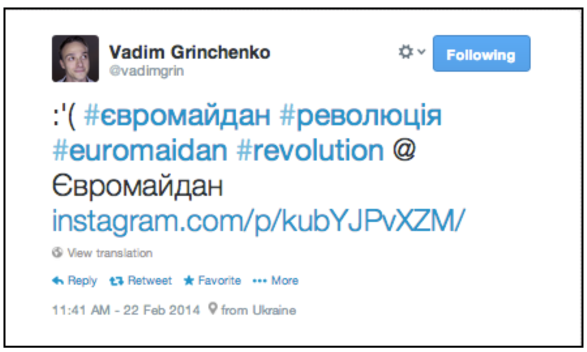


Figure 4.5. Geotagged tweet from Ukraine anti-government protests.

Clicking on the words "from Ukraine" in the above tweet opened a Google map that showed where Grinchenko was: at 50°26'59.2"N latitude, 30°31'29.2"E longitude. It was in the area known as EuroMaidan, where the protests were taking place.

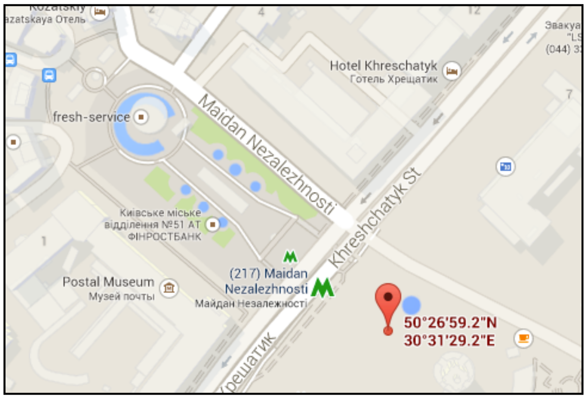


Figure 4.6. Location of Grinchenko's tweet.

Grinchenko's tweet also included a link to a photo he had posted on Instagram, which provided a glimpse of what had been happening during the protests.

Figure 4.7. Photo of bullet in Kyiv, Ukraine.

Services like Geofeedia and Banjo made geotagged social media posts easier to search. Journalists used those tools to search for social media content across multiple platforms, including Twitter, Instagram, Facebook, Picasa, and Flickr. Several journalists used Geofeedia to find sources following the bombing at the 2013 Boston Marathon. Will Vanden Breul with Geofeedia said journalists could draw an area on a map from which they wanted to retrieve social media posts. They could also search by keyword.

> I had a couple journalists I recall who were looking to find tourists at the event to interview who were stuck inside or stuck outside their hotels and where they were in the blast zone. So if I type a keyword like hotel into there, this will update the rest of my dashboard for me and tell me that I've had 65 posts by 50 different users. And I can go out to the map and see where those were dispersed geographically throughout the area. (personal communication, September 25, 2013)

One journalist at a Philadelphia-area newspaper wrote that he used Banjo, another aggregator of geotagged social media posts, to report on a "bomb device" that emergency responders were investigating at a local shopping mall. Andy Stettler used Banjo to look for people who had recently posted that they were at the mall. One user had posted on Foursquare and Twitter that he was at the mall's Apple store, so Stettler asked him whether he had seen any sign of police. The user responded that he saw nothing out of the ordinary, and Stettler retweeted that information (Stettler, 2012). It was a minor detail in what ended up being a minor story; the "bomb device" turned out to be a hollow grenade. Still, using Banjo allowed Stettler to provide his Twitter followers with more information about what was happening during the investigation.

Tools like Geofeedia and Banjo also offered news organizations a means for reporting stories that were outside of their usual coverage regions. A local news website could have used the Associated Press or other wire services to cover those stories, but social media provided an alternative. One journalist in a small mid-Atlantic city said she used Geofeedia to gather social media content from other parts of the country: "when the Boston bombings happened, when the Aurora [Colorado] shooting happened, when the Empire State Building shooting happened, [Hurricane] Sandy, all those things" (personal communication, October 4, 2013).

Some journalists also used Geofeedia to report on pre-planned events, such as high school graduation ceremonies and state fairs. The BBC used it to aggregate photos and videos that people posted along the procession route for the funeral of former British Prime Minister Margaret Thatcher. The BBC presented the social media in an interactive map and slideshow.

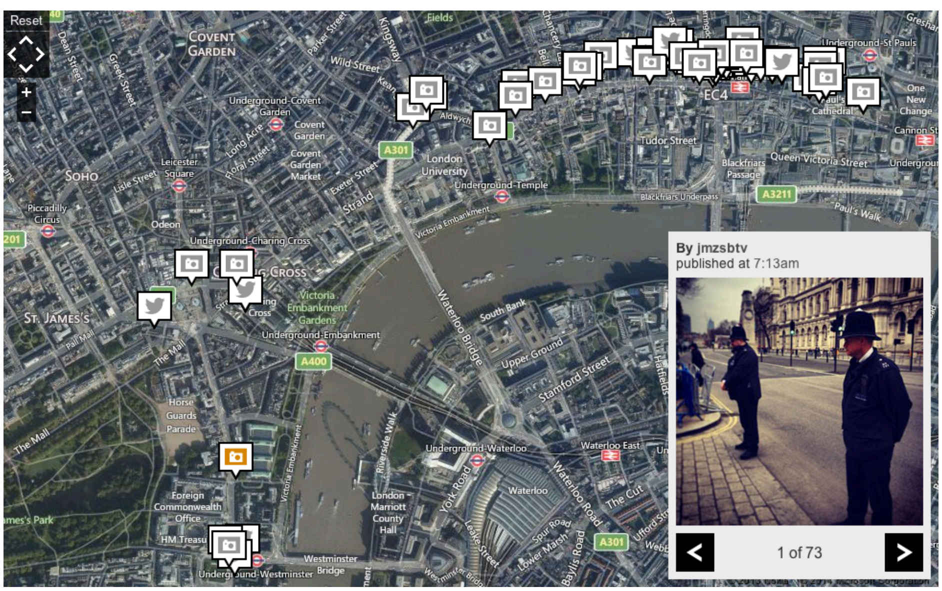


Figure 4.8. Map from the BBC's Thatcher funeral coverage, http://www.bbc.co.uk/news/uk-22164910

Quick Searches: the Role of Findability

Because journalists tended to search for real people according to particular attributes like name and location, the information that they could find about real people quickly influenced how those people were portrayed in news stories, or whether they were covered at all.

People's findability depended on the ease with which journalists could access data about them online or in other readily available records, such as government documents or news archives. The peculiarities of online communication have allowed some people to become more findable than they might have been offline. boyd (2007) identified four characteristics of online social networking that explained why findability has changed in the digital age. First, online communication is persistent; it continues to exist as a semi-public record for years after it is initiated. Online communication is also easily searchable, by keywords, locations, or other means. It is replicable, in that images and text can be easily copied and pasted into new contexts (and also be easily altered). Finally, social networking audiences are invisible; people are often not fully aware of who is on the receiving end of their communications.

Findability could be intentional or unintentional. The most intentional attempts at findability have been from people who have communicated directly with journalists. These attempts have often been unsuccessful; journalists have tended to be wary of sources who tried too hard to get their attention. Other intentional attempts to become findable have included participation in source databases like the Public Insight Network, which I will describe later in this chapter.

Some people may not necessarily intend to be findable to journalists, but nonetheless were because of their activities online. They could, for instance, participate in social media, write blogs, create websites, and leave comments on other websites. They were particularly findable if they consistently used their real names in their online activities.

But the ways people have been depicted online, and the extent to which they even had an online presence, were not completely under their control. Thus, there have been several ways that people could be unintentionally findable.

Public Records

It could be as simple as having an unusual name. Someone named "John Smith" is naturally less findable, due to the myriad other John Smiths in the world, than someone named "Moxie CrimeFighter Jilette." (This is the actual name of magician Penn Jilette's daughter.) Several journalists mentioned that it made a difference when sources or subjects had unusual names. Vanessa, for example, wanted to research someone who had posted a strange listing on the website AirBnb.com. The website allowed people to rent out rooms in their homes to temporary visitors. Vanessa was surfing AirBnb to look for story ideas, and found one listing that was unusual: the user offered to rent trailers in his backyard. He also had some unusual rules: among other things, visitors had to be okay with the fact that others on the property might walk around nude. Vanessa was pleased to see that the person who posted the unique listing also had "a very unique first name." She Googled him and was able to gather more information about him on other websites.

Brenda said she might not have written one of the articles we discussed if not for the unusual name of a news subject. Brenda often reported on court cases, and she had been tipped off to one in which a man had been accused of assaulting his girlfriend. Ordinarily, the case might not have warranted a story. Neither party was famous, and nothing else about the case seemed remarkable. But Brenda decided to search for the man to see what else she could learn about him. He had a relatively common first name, but it had an unusual spelling, which made him easy to find. Brenda found a photo of him, his address, and where he worked. His occupation was of particular interest to Brenda, because he held a managerial position at a local company. That detail ultimately compelled Brenda to write about him; she decided that his senior position made the story of greater public interest.

Other examples of unintentional findability included documents and other information published by third parties. Government records made people more findable. The salaries of government employees have often been posted online and made searchable by name. Property assessment records have sometimes been searchable by owner. Campaign finance records identified donors to political campaigns. An argument could, perhaps, be made that this kind of findability was not wholly unintentional. One could choose not to work for the government, buy property, or donate to political campaigns. Generally, however, one does those things with some goal in mind other than gaining public attention. Increased findability is an unintended consequence.

Increased findability could be particularly damaging if it resulted from an arrest. News organizations including the *Chicago Tribune*, the *News Herald* in Panama City, Florida, and the *Journal Star* in Lincoln, Nebraska have regularly posted local jail data, including the names, photos, and charges against people who were arrested. These data have been hugely popular among online visitors, which has made them hugely popular among news organizations, as well. Increased online traffic generated more advertising revenue. But news organizations have also argued that publishing arrest data was a public service. The data informed audiences about public safety and the activities of government bodies like police and corrections departments. Posting records online also presented opportunities for crowdsourcing. Online visitors who noticed something unusual in the data could notify journalists, who could then investigate. The Reporters Committee for Freedom of the Press has fought against government efforts to restrict access to arrest data. Instead, the Committee argued that prosecutors should go after "bad actors" (Thompson, 2014) who misused the data.

The "bad actors" the Committee likely had in mind were the many entrepreneurs who operated their own mugshot websites. Sites like Mugshots.com, Justmugshots.com, and Bustedmugshots.com attempted to capitalize on the same advertising boom that news sites enjoyed as a result of the photos' voyeuristic appeal. Mugshot websites also had a knack for appearing high in Google search results, due to their "stickiness" (Kominers, 2009)—their tendency to hold the attention of visitors for long periods of time. If you had been arrested and little other information was available about you online, Googling your name might yield multiple mugshot sites on the first page of results. Most of the independent mugshot websites claimed that they would remove arrest information in certain cases, such as when people could prove that they had been exonerated or had their records expunged. Several people who requested the removal of their photos, however, told the *New York Times* that the sites wanted to charge them several hundred dollars. After the *Times* article, Google announced it would change its search algorithm to prevent mugshot websites from appearing so prominently in results. Some law enforcement agencies also decided to remove mugshots from their own websites (Morel, 2014).

Friends and Foes

Unintentional findability could also result from information posted online by non-governmental actors. On Facebook, for example, users could "tag" people who appeared in photos they had uploaded. Facebook's facial recognition software identified when photos featured people. After each photo was uploaded, Facebook prompted users to tag, or label, each person who appeared in the photo. Moving a mouse over someone's face prompted boxes to appear around every person that the software recognized. Users could enter a name to match each face. When Facebook users were tagged in photos, they and their friends might see messages alerting them to the new photos. People who tagged photos thus made other people more findable. And not necessarily in a way that reflected well on them. "We've all been the recipient of such a notification. 'So-and-so has tagged a photo of you'," wrote a technology journalist about the etiquette of photo tagging. "Depending on who so-and-so is, one can't help but instinctively wonder, 'Is it a flattering photo? An interesting, well-composed one? Incriminating?'" (Titlow, 2012)

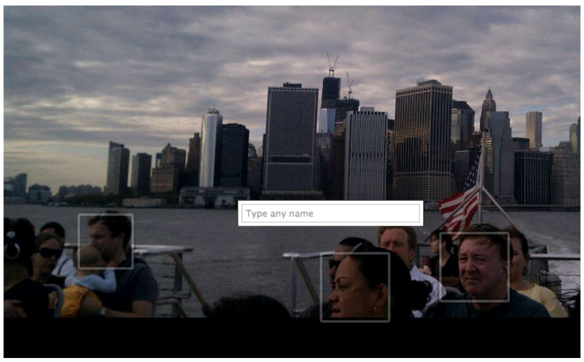


Figure 4.9. Example of Facebook photo-tagging prompt.

People may find themselves unintentionally findable on review websites. RateMyProfessors.com has included reviews written by students about their instructors. The website Angie's List has consumer reviews of professionals like plumbers, realtors, and doctors. The website DontDateHimGirl.com once provided a forum for women to anonymously "review" ex-boyfriends for the unsuspecting women who might date them in the future. One poorly-reviewed man sued the website for libel. He lost, but DontDateHimGirl.com later removed its "database of alleged cads" anyway, transitioning to tamer content about dating and sex advice (DontDateHimGirl.com, 2010). Yelp has included reviews about a wide range of services. One reporter I interviewed, Nick, said that he found a source through Yelp. Nick was researching a particular business, and went on Yelp to see what people had said about it. The source he found had written a "very colorful" review. "Thankfully, he had an easy to search name" (personal communication, September 3, 2013), Nick added.

Oversharing

People may make themselves findable but not understand the extent to which they are doing so, or understand the potential consequences. The practice of making potentially risky personal information public has sometimes been called "oversharing." A common risk of oversharing has been embarrassment. But risks could also include identity theft and other forms of fraud, if social security numbers, birth dates, and other personal data were widely available. An email account belonging to former vice presidential candidate Sarah Palin was hacked not due to technical wizardry or a password that was too easy to crack—it was because of the security questions that Yahoo! users answered in order to help them reset forgotten passwords. The questions were about things that were personally familiar to them—information that may not be easily findable for real people, but could be for the usual suspects. The hacker was able to reset Palin's password by entering her ZIP code and birthday on Yahoo! Mail, and then trying several iterations of an answer to the security question “Where did you meet your spouse?” The hacker learned through online research that Palin had met her husband at Wasilla High School (Zetter, 2008). Security experts have since noted that the answers to "lost password" questions are readily findable for many people, not just public figures.

They have recommended that, rather than actually answering the questions, users instead enter something unrelated, effectively treating them as additional password fields.

Some people have unwittingly overshared by enabling location services on their mobile devices. Sharing one's location can be useful, particularly in emergencies or when friends try to meet up. The social media platform FourSquare specializes in helping people let each other know where they are by identifying their locations on their mobile devices. Foursquare users who "check in" at certain locations often can be designated the "mayor" of those places. Some businesses have offered discounts to Foursquare users who visit them the most. Foursquare users can make their locations available not just to their friends, but the whole cyberuniverse—and some of them have done so without thinking about the possible consequences. A blogger who described himself as a one-time "power user" of location-based social media said he quit suddenly after a fan tracked him down.

> I had someone look up historical data on my checkins and put themselves in places so they would "run into me." Once I switched my habits, they did as well (that is when I figured it out).
> Their response: "well, you put it out there."
> I did. I opted in to getting stalked. (Hyde, 2010)

Several initiatives have pointed out the risks that social media users took just by revealing that they were somewhere away from home. A Dutch organization called FortheHack created the website PleaseRobMe.com, which compiled Twitter and Foursquare data and made them searchable by user or location. "If you're comfortable being a human homing beacon, that's fine, we just want you to be fully aware of what that means and the potential risks it might involve" (Groeneveld, Borsboom, & van Amstel, 2010), the website's creators wrote. PleaseRobMe's front page included a list of "New Opportunities," which updated automatically as social media users posted new check-ins (Van Grove, 2010). PleaseRobMe also had a Twitter account that automatically tweeted warnings to users who had posted their locations. The website lasted about a month before developers announced that they were "satisfied with the attention we've gotten for an issue that we deeply care about" (PleaseRobMe.com, 2010).

Other similar websites followed. ICanStalkU.com aggregated social media posts that included geotagged photos. The site contained a continuously-updated list of users who had posted photos and where they were located. It, like PleaseRobMe, also tweeted users warnings about disclosing their locations.

Figure 4.10. Image from ICanStalkU.com website, July 21, 2010. (Retrieved via archive.org)

The website's developers stopped updating their list of "stalkable" social media users in 2012. More recently, graduate student Chris Weidemann developed GeoSocial Footprint, a website that rated Twitter users "no risk," "low risk" or "high risk" depending on how many of their recent tweets included geolocation data. A heat map on the website revealed the locations where people tweeted most often, suggesting likely locations for a user's home or workplace.

Warnings about the dangers of location oversharing came following a burglary that was believed to have been related to a tweet. The burglary occurred at an Arizona journalist's home after he tweeted the following message.

Figure 4.11. Tweet from journalist Izzy Hyman, May 24, 2009.

Hyman discovered the burglary after he returned home. News stories at the time suggested that Hyman believed the thieves saw his tweets and recognized an opportunity. Hyman actually changed his mind later. "When they finally arrested someone, there wasn't a reason to think it had anything to do with tweets" (personal communication, December 13, 2013).

Still, Hyman's case pointed out the plausibility of that scenario—that burglars *could* find vulnerable targets on social media. And later, some burglaries were actually connected to social media. In 2010, an Indiana man was arrested for robbing a Facebook friend. The so-called "Facebook Burglar," Shaun South, had grown up across the street from the victim and became her Facebook friend about six months before the burglary. The victim, Kari Pendleton, had posted to her friends on Facebook that she was going to a concert that night. South was caught because Pendleton had a security camera set up in her home (Thacker, 2011). Other suspects have also earned the "Facebook Burglar" nickname after being accused of similar crimes (Mahoney, 2013; "Police: Thieves," 2010).

The ability to make oneself less findable, to journalists or anyone else, has depended on access to knowledge and finances. People who understood social media functionalities and privacy settings were better positioned to control how they appeared online. Young adults have been more likely than older adults to monitor what information about themselves was publicly accessible, and they made more of an effort to control their online reputations (Madden & Smith, 2010). Reputation management businesses have offered to help people who worried about the effects of their unintentional findability. Techniques for repairing online reputation damage have included creating new social media profiles and linking them to each other in an effort to push unflattering websites lower in search engine rankings. Online users have tended not to search beyond the first page or two of search engine results (Kamvar & Baluja, 2006; McGee, 2011; Silverstein, Marais, Henzinger, & Moritz, 1999), so flooding the web with new material could obscure mugshots or other information people wanted to hide. Firms like Reputation.com have charged $399 and up for such services (Adams, 2013).

Original Searches: The Public Insight Network

Unlike digital search tools that have helped journalists find information quickly, the Public Insight Network was designed to help journalists find information that was original. Andrew Haeg was one of PIN's original designers:

> I felt journalism had been reduced to this kind of paint-by-numbers exercise where, for some reason, you already think you know what the story is, or have these impulses about what news is. And we have impulses about who sources are that have been kind of handed down to us over time. And if we stop and really think about what we're doing, and we think about what we're trying to educate our audience about, then we would take a totally different approach. (personal communication, May 15, 2012)

Haeg believed that journalists did not stop and think about their work because deadline pressures left no time for it.

> I think in the 24-7, you know, I've gotta blog, tweet, do five other things, and get the stories out, I think we've lost our sense of discovery and curiosity. And it's just like we come in, we harvest the quotes, we harvest the data, we get the expert, we get the real person to put on top of the story, and you know, we wash our hands, and go to bed. (personal communication, May 15, 2012)

The routine, maximally efficient, "paint-by-numbers exercise" described by Haeg is an example of what psychologist Daniel Kahneman described as a "System 1" activity in his book, *Thinking, Fast and Slow*. System 1 is in charge of the fast thinking. It "operates automatically and quickly, with little or no effort and no sense of voluntary control" (2011, p. 20). System 1 is instinctive. It bases its decisions on prior experience. System 2, by contrast, requires effortful concentration. It is characterized by what John Dewey called "reflective thinking," a process of recognizing problems, weighing possible solutions, and testing hypotheses. "Some inhibition of direct action is necessary to the condition of hesitation and delay that is essential to thinking" (2009, p. 139). In other words, System 2 is a time-consuming, energy-intensive process. It requires full concentration.

System 1 has been useful for routine, reflexive, ongoing activities. It has not been useful for dealing with the unexpected. It can lead people to draw false conclusions because of gaps in their knowledge.

> Jumping to conclusions is efficient if the conclusions are likely to be correct and the costs of an occasional mistake acceptable, and if the jump saves much time and effort. Jumping to conclusions is risky when the situation is unfamiliar, the stakes are high, and there is no time to collect more information. (p. 79)

When System 1 is in danger of drawing ill-conceived conclusions, System 2 can correct it. But because of the effort System 2 requires, sometimes it just sits out of the decision-making process. "When faced with a difficult question, we often answer an easier one instead, usually without noticing the substitution" (p. 11). Kahneman has sometimes referred to System 2 as "lazy."

System 1 has been the driving force behind routine journalism. It has favored speed over originality, and simplicity over complexity. Kahneman observed that System 1 often told the best stories; they were good, he wrote, because they were simply told and clearly understood. "It is the consistency of the information that matters for a good story, not its completeness. Indeed, you will often find that knowing little makes it easier to fit everything you know into a coherent pattern" (p. 87). It is for similar reasons that journalists may avoid telling "complete" stories. Some journalists have acknowledged that having too many sources can be a burden, because they make stories overly complicated (Reich, 2009). Journalist-turned-academic Jack Lule also found that journalism tended to take the form of familiar archetypes that can be traced back to Greek mythology. Journalists have used these "fundamental stories," or "myths," as models because they were broadly accessible to news audiences. Such stories were based on the "shared experiences of being human" (2001, p. 36), so they were easy to understand. Lule also found that myths tended to reinforce, rather than challenge, social order. They were not forces for change. In that way, myths could work against journalistic values relating to independence, truth-seeking and holding powerful institutions to account.

PIN has been a System 2 tool. At least, that is how its biggest cheerleaders at American Public Media have promoted it. Rather than using it to produce quick, "catch and release" stories, journalists were supposed to consider PIN "a journey" (personal communication, March 15, 2013), one APM employee said. It should be used to ask questions of news audiences, the answers to which would then be shared back and used to generate additional questions, a "virtuous cycle" (personal communication, February 15, 2013). APM employees often spoke of the "PIN mindset," a point of view that belonged to people who "got it," who understood that the database should be used in a System 2 kind of way.

The PIN Mindset

APM tried to instill the PIN mindset in newsrooms that used the database, also called "PIN partners," by requiring them to dedicate at least a half-time employee to local management of the database and integrating it into the reporting process. This person, who was called an "analyst," was supposed to collaborate with journalists to help them see ways PIN could help them on their stories. Analysts were to work with journalists on queries that could generate insightful responses from sources. Analysts would be the ones to access the database itself, searching for potential sources and distributing the queries. Analysts might also review responses before passing along the best ones to journalists. APM later relaxed its analyst requirement after it appeared to be an impediment to signing up additional partners.

Training sessions for new partners were also aimed at developing the PIN mindset. I observed training sessions at three newsrooms during my fieldwork. Training sessions usually took place over two days, for four hours each day. Journalists also had homework at the end of the first day. The training sessions usually included five people, since PIN's contract with newsrooms allowed them to have up to five people access the database. (Most newsrooms only had one or two people access the database on a regular basis, but they would not necessarily know how the work would break down until after they started using it.) The sessions focused partly on the technology associated with PIN, which could be difficult to use. At one point, users had to log in to three separate platforms: one to search the database, one to generate queries, and one to email queries to sources. But much of the training was actually not about the technology itself. It was rather about how to use the technology strategically:

> how you engage the network, how you build the network, how you do outreach, but also what constitutes a PIN query, or an effective PIN query. What kinds of questions should you be asking, what kinds of stories is it best suited to helping cover. (Haeg, personal communication, May 15, 2012)

Some partners resisted the length of the training sessions. One of the training sessions I observed took place over one, not two days, at the request of the partner newsroom. At all of the training sessions I observed, most participants stayed the whole time. But a few came and went. Some journalists had to tend to other duties, such as attending press conferences, conducting interviews, and in the case of broadcasters, performing their shifts on the air.

APM later curbed its demands on partner newsrooms. It dropped the requirement that partners dedicate at least a half-time employee to PIN. It also stopped conducting training sessions in person. Instead, partners could watch a series of training videos that APM posted online. Loosening the requirements lowered the barriers to entry for news organizations that lacked the resources or otherwise did not want to comply with the manpower and training demands. But it also gave APM fewer opportunities to try to instill the PIN mindset in newsrooms. Partners that did not have the mindset might not use the database as intended, and thus be disappointed when it did not work the way they had hoped.

PIN in Practice

Journalists were most satisfied with PIN when they felt that it performed as a "serendipity machine" (personal communication, January 17, 2013)—it identified sources and story ideas that would otherwise have been difficult, if not impossible, to find. Journalists also liked that PIN led them to sources who were cooperative and who often agreed to share highly personal stories.

Journalists said PIN helped them find sources whose perspectives on public issues were different from those of the usual suspects. One journalist found PIN sources who were willing to talk about being out of work following massive government layoffs. One journalist said that she doubted she would have found so many sources any other way. "Like what, maybe we call up [the government] and ask who's losing their job? No" (personal communication, March 8, 2013). A journalist who was working on a series about how government regulations affected small businesses said she "found owners of small businesses who had examples at hand, instead of having to call around in search of the kinds of stories we were looking for" (personal communication, January 6, 2013).

PIN sometimes uncovered new story topics that journalists had not considered. MPR, for example, did stories on Minnesota's sin taxes after journalists noticed that many people who were playing PIN's Budget Balancer game opted to raise sin taxes in order to cover all of the services they wanted the state to fund. (Players had to balance their budgets in order to "win.") Sin taxes had not been an option that lawmakers had explored that year in its initial proposals. By the end of negotiations, though, the state passed higher taxes on tobacco.

In 2012, PIN sources in Florida indicated that they wanted state lawmakers to prioritize alimony reform in their upcoming legislative session. Journalists said they had not expected that to be a topic of great interest; they had thought respondents would be most interested in revisiting Florida's "Stand Your Ground" law, which had gained attention because of the fatal shooting of Trayvon Martin, an unarmed African-American teenager, by neighborhood watch volunteer George Zimmerman. "Stand Your Ground" was hardly mentioned in responses from PIN sources, though, despite the national attention the story had received.

Journalists said PIN was more likely than other digital search tools to help them find cooperative and amiable sources. PIN sources generally understood that registering for the database meant that journalists might contact them. Joining PIN was thus an intentional act by sources to make themselves more findable. "They know why you're calling them. It's better than having to butter someone up," one journalist said. "You're just able to jump into the meat of the conversation more quickly" (personal communication, January 4, 2013) compared to cold-calling other potential sources.

The "meat of the conversation" sometimes included surprisingly intimate contributions from sources. Below is one response to PIN's "generic" query, which APM had written but made available to all partner newsrooms as a recruitment tool they could easily post on their websites. This is how one source answered the question: "What do you know more about than most people you know (i.e. what are your areas of expertise)?"

> My career was dedicated to care and research in the field of Infectious Diseases. I am on disability due to AIDS, having acquired HIV infection after an occupational exposure. Having practiced nursing for 24 years, I consider myself an expert on nursing recruitment and retention, and the (mis)treatment of women in the workplace. I also suffer from the mental illnesses of depression, anxiety, and anorexia nervosa. (Anonymous, 2011)

Some sources wrote about their personal experiences with other sensitive topics, such as abortion, post-traumatic stress disorder, racial discrimination, violence, and poverty. PIN analysts who were struck by such frank responses said they felt more motivated to get those sources' stories covered. "The people I interact with deserve respect," one analyst said of PIN sources who shared such personal information. She said she felt frustrated when journalists ignored them. "I try to go to bat for these people, because I feel like they're being wasted. It's a puzzle I want to solve" (personal communication, January 17, 2013), she said.

Despite the wishes of APM's employees that queries take a System 2-type approach to gathering news, several newsrooms used it in other ways. Some journalists said they used PIN for routine, System 1-type stories. Kling, APM's former CEO, maintained that "it's a lot faster to go to people who know what they're talking about than it is to sort of wander around with blindfolds on, hoping you'll stumble across somebody" (personal communication, November 15, 2012). He cited a story that MPR produced following a 2006 plane crash in New York City. New York Yankees pitcher Cory Lidle and his flight instructor died when their small plane flew into an apartment building on Manhattan's Upper East Side. MPR was interested in the story because the plane's manufacturer was based in Minnesota. MPR asked pilots in PIN to share what they knew about the plane, the Cirrus SR-20. Eight pilots responded, saying that the plane had a strong safety record and that most crashes with that model were due to pilot error ("Cirrus Pilots React," 2006). A federal investigation eventually concluded that pilot error was indeed to blame for Lidle's crash (National Transportation Safety Board, 2007).

But while some journalists had used PIN for quick turnaround stories, they often did not believe that it was the best use of the database. "I find these queries are very prescribed," one analyst said. "'Find someone from some place that has done something'" (personal communication, January 14, 2013). According to another analyst, "If reporters have already figured out what they think the story is, I find the sources have zero impact on that. Sources who do not conform to what a reporter's decided the story is—it's just a waste of the reporter's time" (personal communication, January 17, 2013). In other words, some journalists tried to use PIN the way many of them used social media: to search for people who fit specific profiles, rather than to discover new people and ideas.

Some journalists used PIN to gather man-on-the-street-type opinions. One query, for example, asked sources for their opinions on the state of civil rights 50 years after Martin Luther King Jr.'s "I Have a Dream" speech. Another opinion-related query from KCRW, a public radio station in Los Angeles, asked sources whether they preferred the city's Eastside or Westside. Although PIN analysts did not often criticize each other publicly, some privately disapproved of queries that were opinion-based. Others said there was value in "getting the conversation started" (personal communication, May 17, 2012). Journalists could attract the interest of potential sources by asking them for opinions, and then follow up by asking them additional questions that could help reveal the experiential knowledge on which their opinions were based.

Sometimes, news organizations used PIN queries to run contests. The *Miami Herald* and public radio station WLRN used PIN to conduct a poetry contest. Entrants submitted poems in honor of the Miami Heat's acquisition of star basketball player LeBron James from the Cleveland Cavaliers. The winner received two tickets to a Heat game and read her poem on the air. The query generated 1,100 responses—substantially more than most queries—and inspired other PIN partners to try poetry contests of their own.

Although PIN's administrators at APM generally advocated using the database for deeply-reported stories, they said partners were welcome to use it in other ways. After all, while poetry contests might not be useful for news stories, they could help recruit new sources to the database—sources who may not otherwise have known that PIN even existed.

PIN Partners

PIN partners often supported other System 2 approaches to news. Many of them were keen on experimentation in general. Some PIN partners also had a background in public journalism, a movement that began in the 1990s and was aimed at giving the public a greater role in shaping the news agenda. Finally, PIN fared best at organizations where the person in charge of implementing the database had sufficient clout and determination to integrate it into their existing workflow.

PIN tended to find the most support at organizations that embraced other types of experiments. Some of those organizations were public radio stations that had frequently competed for startup grants through NPR and the Corporation for Public Broadcasting. Such projects included Project Argo, a network of blogs that focused on topics of regional interest. NPR also partnered with local stations on the StateImpact project, a web-heavy project in which journalists collaborated on reporting related to education, energy, and the economy. A CPB-funded initiative encouraged groups of stations to form Local Journalism Centers, another collaborative reporting effort. One LJC based in Arizona and southern California, for instance, focused on Latino and Native American culture and immigration; an LJC in the Midwest focused on "reinventing the industrial heartland and in particular the economy" (Corporation for Public Broadcasting, 2010). National funding for these initiatives was always temporary, and many shrank or disappeared completely after startup money dried up. Still, some stations regularly competed to participate in such initiatives; those stations also tended to be the ones that tried and liked PIN. An employee of one of those stations said of PIN non-believers: "they have no imagination" (personal communication, March 8, 2013). Some PIN partners were also experiments themselves. The St. Louis Beacon, for example, was an online-only non-profit newsroom founded in 2008 by former reporters and editors from the *St. Louis Post-Dispatch,* several of whom accepted that newspaper's buyout offer in 2005.

Several PIN partners had a background in public journalism. Two partners, the *Wichita Eagle* and *Charlotte Observer*, were both public journalism pioneers; they were known for projects that attempted to be more responsive to the concerns of citizens. Davis Merritt, the *Eagle's* former editor-in-chief, has been considered one of public journalism's founding fathers (Charity, 1995; Glasser, 1999). For Kansas' 1990 gubernatorial election, he outlined a new coverage strategy for the *Eagle* that emphasized issues-based stories over day-to-day campaign coverage. He also authored three books on public journalism that advocated System 2-type coverage. The "relentless periodicity" of news, he argued, left journalists with "little time for contemplation" (1995, p. 15). It forced journalists to make judgments based on "reflexes," which "naturally limits the daily journalist's field of view and restricts the possibilities of telling citizens what's really going on beyond the episodic and the fleeting" (p. 16). The *Observer* led its own public journalism effort based around North Carolina's 1992 election (Rosen, 1999). NPR, another PIN partner, followed with its own election-related public journalism project in 1994 (Dinges, 2000). Participants in the NPR election project included other PIN partners as well, such as New Hampshire Public Radio, KCRW, WAMU, and WITF.

PIN partners that used the database most tended to have an influential person leading the effort. PIN could die quickly in newsrooms unless someone—and particularly a manager or editor—urged journalists to use it and helped them along the way. One editor who oversaw PIN in her newsroom said she used editorial planning meetings to suggest ways that journalists could use the database. "I'm in a position to say, 'hey, this could work well,' and have it respected" (personal communication, January 7, 2013). Some newsrooms hired a new employee to manage PIN, which tended not to work well. New employees were unfamiliar with how those newsrooms operated, so they were less likely to see opportunities for integrating PIN into their workflow. They were also less likely to win the trust of colleagues who were wary of any kinds of changes, new databases and new co-workers included.

Resistance from Journalists

Resistance from journalists was the biggest obstacle for PIN. Despite APM's efforts to promote the "PIN mindset," many journalists were not sold. They were frustrated at the time it took to learn the software, to think about queries, and to wait for responses to come in—if they came in at all. Journalists who supported PIN were frustrated when they felt as if their colleagues did not give it a chance. One analyst who said she tried to help a journalist find "super commuters"—people who traveled long distances to get to work—said "quite honestly, I didn't think the reporter was flexible enough to adapt her angle" (personal communication, January 14, 2013). Another journalist wrote that he faced "unrealistic expectations of what we reporters can find and how quickly we can find them. All. The. Time" (personal communication, January 14, 2013).

Some journalists who resisted using PIN cited concerns that the database lacked diversity. One journalist who was reporting on immigration fraud said he doubted PIN would help him find relevant sources, although he had never used the database before. (A quick search I did of the database turned up 67 people in the journalist's state who had the word "immigration" in their profiles, including immigrants, children of immigrants, immigration attorneys, a restaurant worker, and a pastor who worked with refugees. Would any of them have been useful sources? We will never know.) Another journalist who was reporting on a food assistance program opted not to use PIN, even after she struggled to find sources other ways. She said she had tried to use PIN on prior stories and believed that few sources in the database had low enough incomes to qualify them for food assistance. She ultimately found sources for her story by hanging out outside a local food pantry. Other journalists said they believed PIN attracted sources who had an "agenda" or only those who listened to public radio.

Journalists also resisted using PIN because of concerns about their competition. Some journalists said publishing queries could tip off their competitors about stories they were pursuing, ruining any possibilities of scoops. Journalists were also uncomfortable with the fact that other PIN partners might have access to their sources. For many organizations, this was not a concern; most were local news operations whose coverage areas did not overlap with those of other PIN partners. But some partners were national news organizations. Others were located in cities that had multiple PIN partners. Detroit public radio station WDET and Michigan Public Radio were both PIN partners for a time. So were Los Angeles public radio station KCRW and Southern California Public Radio.

APM tried to address the partners' concerns about sharing sources. One way it did this was by allowing partners to keep sources they recruited mostly to themselves. About half of PIN's more than 200,000 sources had joined through a partner, usually on the partner's website. Partners had privileged access to sources who signed up through them. Some partners had only a handful of their own sources; other partners had thousands. However, all partners also had access to the other 100,000 or so sources in the other half of the database, which was called "Global PIN." Sources in Global PIN had joined through APM itself, such as by playing one of its budget-balancing games, or by answering queries from one of its programs like *Marketplace* or *On Being*.

Journalists who supported PIN tried to find ways to make it work better. Analysts compared notes about queries they had written in hopes of learning from each other how to ask questions that generated more—and more insightful—responses. Analysts often concluded, however, that it was impossible to predict how much interest any particular query would generate. There were too many variables, they said—including how the questions were worded, how they were publicized, how many sources had relevant knowledge, how long the queries were, what day and what time they were emailed to sources, and what else was happening in the news on a given day.

Queries that were broad—those that asked questions most anyone could answer—could generate numerous responses. One journalist wrote that positive, community-oriented stories were especially popular. "For example, for our state's centennial we did a 'share your memories of living here' query that generated a lot of great responses" (personal communication, January 15, 2013). But broad questions sometimes leaned toward superficial topics, and generated answers that were neither surprising nor revealing. One query that was distributed around the 50th anniversary of the Beatles' appearance on the Ed Sullivan Show asked sources for their memories of the band. The resulting article included quotes from PIN sources like “My dad could not get over those boys with the long hair,” and "Couldn’t hear the music at all. Just screaming girls, standing up, going crazy" (Janes, 2014). Anyone who knows the Beatles knows that these are not particularly unique observations.

Some journalists also found that broad queries could attract few responses. "I sent a query last month asking people to share examples of compromise," one journalist said. "It was a dud" (personal communication, December 28, 2012). Another journalist wrote that he "tried a campaign at the start of the school year asking people to be a source for our education reporter. It fizzled. It would work better tied to a controversial school issue" (personal communication, January 14, 2013). Some journalists suggested that sources might not be as motivated to answer questions that seemed too dry or vague.

On the other hand, queries that were too targeted to particular types of sources could also generate few responses. "I once worked on a story on moon cakes," one journalist said, referring to the sweet pastries associated with the Chinese Mid-Autumn Festival. "There wasn't anyone in our PIN network that was knowledgeable on that matter" (personal communication, January 15, 2013). Another query that failed to attract responses sought sources for a story on Russian adoptions (after that country banned adoptions to U.S. families). A query looking for people who were employed part-time but were looking for full-time work also fell flat. Queries that were highly targeted also risked alienating sources. If sources too rarely saw queries for which they had relevant knowledge, they could lose interest in participating altogether. A survey that APM had commissioned to learn about what motivated sources to join and stay in PIN found that the most common reason they lost interest was a lack of queries that were relevant to their knowledge or were thought-provoking.

This feedback from sources suggested one additional challenge for PIN: in order for it to work, journalists had to convince sources to participate. Then, journalists had to maintain their interest. It was unlike social media and other System 1 tools that allowed journalists to monitor or research subjects based on information that was easily findable; PIN required journalists to interact with sources and gain their trust. This was a particular challenge when journalists tried to recruit sources who were not part of their usual audiences. In chapter 6, I will discuss how journalists tried to confront this challenge.

CHAPTER 5: VERIFYING SOURCES

Data-driven tools have afforded journalists a new way to evaluate potential sources. Journalists have used data to evaluate data. The process for evaluating people as potential sources has remained much the same: usual suspects and other journalists have generally been presumed to be credible, while real people have been riskier. Less risky, however, have been the objects that real people have produced, especially videos and photos taken at the scenes of breaking news events. While the credibility of real people has been hard to judge, journalists have found tools and techniques that have made them more confident about the credibility of some objects.

Despite the availability of data-driven evaluation techniques, however, many sources went unchecked. Some news organizations contended that transparency trumped verification—that is, if they identified their sources, and attributed as much information to them as possible, audiences could decide for themselves whether to trust those sources.

Both approaches—data-driven evaluation and transparency—shifted responsibility for determining source credibility away from individual journalists. It also meant that real people still had limited means to prove themselves to be credible sources, except as producers of objects.

Evaluating Usual Suspects, Journalists, and Real People

Journalists have applied different standards for evaluating the credibility of usual suspects, journalists and real people. They have tended to portray usual suspects as credible sources, despite their personal skepticism of them. They have accepted the reporting of other journalists as fact, while acknowledging that deadline pressures often led to errors. Finally, journalists have tended not to use real people as sources except those who could "borrow" credibility from the usual suspects. Otherwise, evaluating the credibility of real people could take too much time.

Usual Suspects

Journalists have presumed usual suspects to be credible. The powerful positions that usual suspects held suggested that other people trusted them enough to elevate them to those positions. Elected officials have had to win the confidence of voters. Business leaders have had to earn the trust of shareholders and employees. Academics have had to prove themselves worthy of their degrees.

On the other hand, journalists have also been skeptical of the usual suspects. Journalists would depend on them, but also "harbor a pervasive distrust" (Gans, 1979, p. 130) of them. Journalists have believed that usual suspects promoted personal agendas, sometimes at the expense of the truth, and stymied investigations that ran counter to their interests.

When I interviewed journalists, I tried to ask how they determined which sources were credible. It was an awkward question, and I left it out of many later interviews. It was awkward because most sources were the usual suspects, and journalists believed the credibility of the usual suspects to be self-evident. As Sabrina put it, "You know, obviously, if it's somebody who my colleagues talk to, who other reporters regularly talk to, I consider them kind of verified. You know, if they're a public official, if they're a political consultant" (personal communication, September 1, 2013).

When the usual suspects turned out not to be credible, journalists felt that they could retaliate using the power of the pen. Nick, for instance, had been frustrated by conflicting information he got from two government agencies during a breaking news story. He pointed out to me small jabs that he included in his article, "sort of ribbing the confused reporting from" (personal communication, September 3, 2013) one particular agency. The article included a paragraph noting that the agency changed its story repeatedly over a period of about two hours.

Journalists

Journalists have also tended to presume that other journalists were credible. Almost half of the articles covered in my interviews with beat journalists included journalists—themselves or others—as sources. This is rarely made clear in articles—particularly when the sources were journalists from rival news organizations. The reluctance to credit other journalists has been based partly in the competitiveness of the industry as a whole. In the digital age, there has also been a financial disincentive for crediting competitors. Doing so could send audiences to competitor websites, giving them highly-coveted pageviews that generated advertising revenue. Journalists also hesitated to attribute information to each other so that they could protect their personal reputations as professionals. Journalists have wanted to be known for doing original work (Anderson, 2013b). Acknowledging that other journalists have done similar work could lower their status. On the other hand, not crediting other journalists could lower their status, too—if they were caught.

Some of the best opportunities to learn about the extent to which journalists have presumed each other to be credible have come in the chaos of breaking news. Verification processes at news organizations have been under the most stress when they raced to be first with new facts. The shortcuts they took to verify information became obvious when one news organization made a mistake and others immediately followed. One of those mistakes occurred when former Congresswoman Gabrielle Giffords was shot in 2011 during a public appearance at an Arizona shopping center. Several news organizations erroneously reported that Giffords had died. The first of those organizations appeared to have been NPR, which broadcast the news on the radio and then on Twitter less than an hour after the shooting occurred:

Figure 5.1. @NPRNews tweet, January 8, 2011.

It was true that Giffords had been shot in the head. It was not true that she had died. Nonetheless, Reuters, CNN, Fox News and the *New York Times* soon followed NPR with their own reports of Giffords' death. Other news organizations hesitated, either because they were waiting for confirmation from their own sources, or because their sources contradicted NPR's report. NPR later corrected its story and said it had relied on two sources that it had thought were credible: the sheriff in the county where the shooting took place, and someone in a congressman's office. Most other news organizations that had incorrectly reported that Giffords had died were not so forthcoming about where they got their information. Reuters acknowledged that it used NPR as a source:

Figure 5.2. @Reuters tweet, January 8, 2011.

CNN journalists said they had been aware of NPR's report, but also confirmed the news themselves. Fox News also said that it had confirmed the story independently. The *New York Times* attributed its information to NPR and CNN.

Journalists have a long history of using each other as sources. But the pressure to be first, or at least early, in the digital age has made news organizations increasingly likely to lift information from their competitors without verifying it independently. Meanwhile, the material that they take from each other has become less credible. Journalists know that much of breaking news is insufficiently sourced, and yet they continue to use material from their competitors. Former CBS News anchor Dan Rather said that he probably would not have used the unconfirmed NPR story in the 1970s or 1980s, but he might have in 2011. "The pressure is immediate and almost crushing on you and your news organization to match that," he said. "Mostly what you hear are sets all over the world going to your competition and computers, handheld or otherwise, going to a different site" (as quoted in Bauder, 2011). Missing stories meant losing audiences, which meant losing advertising revenue.

Real People

Determining the credibility of real people has been riskier for journalists. Absent any proof of past trustworthiness, journalists have chosen real people who could "borrow" credibility from people whom journalists did trust: namely, usual suspects and other journalists. Sometimes, journalists relied on their instincts to evaluate real people as potential sources. Journalists have also at times tried to distance themselves from the responsibility of assessing source credibility.

Borrowed Credibility. Real people could increase their attractiveness as sources by "borrowing" credibility from the usual suspects. In other words, they associated themselves with people who had greater credibility than they did. This was particularly important for real people who appeared on talk shows at some radio stations I observed. Talk show producers wanted to make sure that their guests were comfortable speaking on live radio, articulated their thoughts well, and could keep up a conversation for half an hour or more. Because of these requirements, some producers were wary of having real people on at all. They would, however, consider some real people who had been recommended by the usual suspects. One local talk show I observed had on a real person who had been recommended by the public relations department of an organ donation advocacy group. He had received a donated kidney, and he talked about his experience with the process. He had never been on the radio before, but he had spoken to community groups, so it was not an altogether unfamiliar experience for him. A spokesman for the organ donation group also appeared on the show, which added professional knowledge to complement the other guest's experiential knowledge.

PIN sources sometimes borrowed credibility, perhaps unwittingly, in their responses to queries. They did this by identifying specific organizations where they worked, volunteered, or had some other presence. Their specificity helped journalists confirm (or sometimes, disprove) those associations quickly. One journalist I observed had a particular habit of highlighting particular words and phrases with her mouse as she read through responses on her computer screen. It was an unconscious indicator of terms that caught her eye. The words she highlighted were almost always proper nouns or other easily "Googleable" (Palmer, 2013, p. 300) phrases, such as companies that the sources worked for, places they lived, or other keywords that related to the topics of their responses. Sometimes the journalist would copy and paste the terms she highlighted into a new web browser window in order to search for them online. She would either search those terms by themselves, or in combination with the sources' names, to help verify what they had written.

Real people can also borrow the credibility of journalists who used them as sources in the past. Having appeared in news stories before suggested that sources had been vetted, that they were important enough to have been given a public forum to share their knowledge. Sociologists Paul Lazarsfeld and Robert Merton called this phenomenon "status conferral." Appearing in the news, they wrote, "testifies that one has arrived, that one is important enough to have been singled out from the large anonymous masses, that one's behavior and opinions are significant enough to require public notice" (2004, p. 233). Once sources have appeared in the news once, their elevated status made them much more likely to be contacted by journalists again (Soley, 1992; Strentz, 1989). Status conferral was thus recursive. Just as journalists can confer status with their sourcing choices, sources can confer status back onto journalists by electing to talk to them.

Real people who had appeared in the news before were more attractive to journalists who were pursuing fast, System 1-type stories. For journalists working on short deadlines, referring to past news articles was a helpful "cheat sheet"; they could find every person who had been quoted and contact the same people. Journalists who were working on longer deadlines, however, shied away from using real people who had been interviewed on similar topics. One journalist I observed who was working on an environmental story asked local advocacy groups for recommendations of real people. He was dismayed to find out that most of the names he had been given were of people who had recently appeared in a similar story by the investigative news organization ProPublica. Although ProPublica was not his direct competitor, the journalist was still disheartened; he wanted to produce something original, to bring new facts to light. He also did not want to appear as though he had just copied another journalist's work.

Journalistic instincts. Absent other indicators, sometimes journalists have evaluated sources based on instinct. This is not to say their evaluations have been baseless; as Kahneman noted, instincts are based on prior experiences (2011, p. 60). Journalists I interviewed mentioned that when they doubted the credibility of real people, it was because of a feeling that something was just not right. They asked themselves: does this person seem trustworthy, or is there something about them that seems off? Sabrina said she got a funny feeling about a man she had interviewed for a story she wrote on bicycle commuters. His comments were uncontroversial, and nothing seemed amiss—until she asked him some basic questions about himself.

> I said what do you do? And I think he said, "I'm a physician." And then he gave me this really weird card that was kind of, like, new agey. And I looked him up, and he had been, I think it said that he'd lost his medical license or something. I mean, there was something—he had been involved in some fraud. (personal communication, September 1, 2013)

Since the man's comments on bicycle commuting were unrelated to his professional background, Sabrina decided that she would still quote him—but she did not identify him as a physician. The man blew it by giving Sabrina his card. If he had just said that he was a physician, and left it at that, she probably would have taken him at his word.

> In terms of people on the street, one tends to believe they are who they say they are, unless it sounds suspicious. You know, I don't ask to look at people's

> identification. I believe somebody's name or age. If there's something they say that sounds weird, I'll look it up. (personal communication, September 1, 2013)

Other journalists agreed that they rarely bothered to verify whether sources were lying to them during man-on-the-street interviews. "Sometimes, you get punked" (personal communication, March 6, 2014), one journalist said, but he did not see it as a big deal. It was the same argument that Sabrina made in chapter 2 for why she agreed to keep a source anonymous; if what the source said seemed innocuous, it was less important to verify it.

An analyst with the Public Insight Network also recounted an example of a source not seeming quite right. The analyst said she saw that someone had registered under the name of another local journalist she knew. Based on the person's responses and what the analyst knew personally about the journalist, she said it was easy to tell that it was a bogus profile. She said it appeared that the person who was posing as this journalist was trying to make him look bad. She looked at the email address the person had used to register as a source, and saw that it was one letter different from the journalist's name. The analyst put a note on the source's profile to alert other journalists that it was fraudulent.

Both of these cases highlight the uncertainty involved in catching less-than-credible sources. Sabrina questioned the credibility of her source only after he gave her the weird business card. Someone who was less experienced might not have thought to, or known how to, check the man's medical license. The PIN analyst caught the fake user only because she recognized the name of the journalist whom the user was trying to spoof. Someone who was not as well acquainted with other local journalists might not have recognized the name, or might not have thought that the profile was unusual. How many less-than-credible sources have slipped past journalists who were not as experienced or skeptical?

Careful attribution. One way that journalists have tried to protect themselves from sources of questionable credibility has been by attributing as much information to them as possible. The more dubious the statements, the more important it has been for journalists to attach other people's names to them. One journalist I interviewed, Tom, tried to use this approach for a story about a man who had a remarkable ability to insinuate himself into improbable adventures. Tom worried afterward that he may not have attributed as much information to his source as he should have:

> I tried to say "he said," or "says Dave," in as much of this as possible. Because, you know, I don't know if he really met a filmmaker who gave him a pass [to a film festival]… My journalism school professors would probably prefer that: "he said." "He *said* he managed to befriend a filmmaker who gave him this pass." But we don't have that in there. (personal communication, September 16, 2013)

The rationale behind using all of the "he saids" was that by doing so, Tom would limit his own responsibility in the event Dave was found to have lied. By meticulously attributing questionable information to Dave, Tom stopped short of stating it as fact. He left that determination up to his audience, based on how believable they thought Dave was.

The Public Insight Network adopted a similar strategy of careful attribution in order to encourage journalists to make greater use of the responses they received to their queries. When I first began studying PIN, its administrators at American Public Media had advised journalists never to publish responses without contacting sources again. This additional contact had two purposes: to ask for their explicit permission, and to confirm and clarify the information they had submitted. Later, developers made it easier for journalists to ask sources for permission in the query itself. Eventually, the permission question was included in all queries by default.

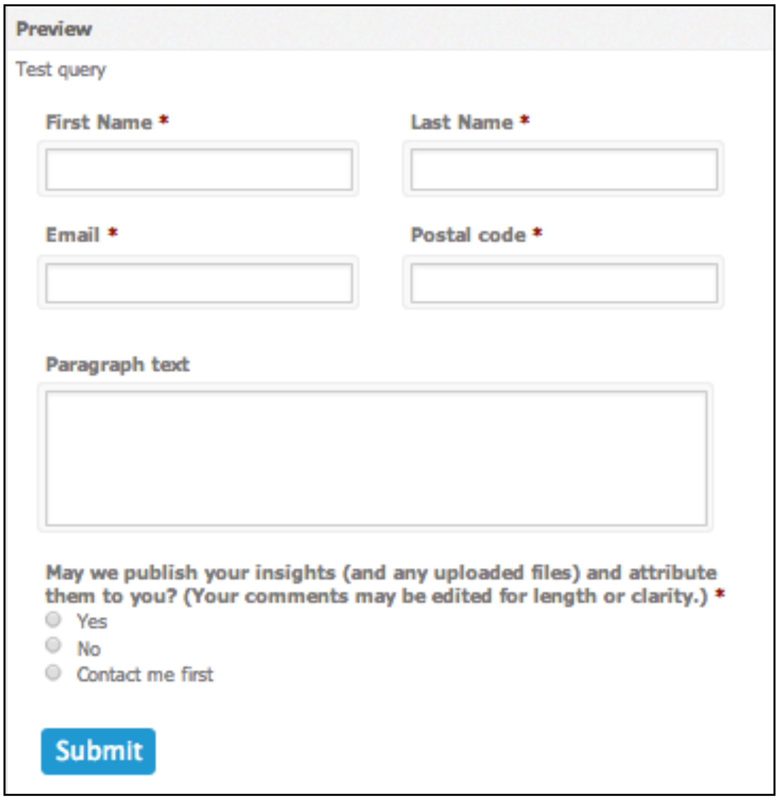


Figure 5.3. PIN Query template. This is how all queries appeared before they were customized for particular stories.

Including that question in the queries themselves saved journalists the task of asking for permission after responses came in. Whether to contact sources again to confirm and clarify the information in their responses thus became a discretionary step for journalists.

Developers later added another option to help journalists publish source responses quickly. No longer were journalists limited to copying and pasting text from source responses and integrating those quotes into stories; with a few clicks, they could instead publish entire responses in their original formats.

Michael Wood | Harrisburg, PA
Oct 22, 2013

Have you been taking the train more, or less, in the past couple years? Why?

I take the train for work when we have a meeting in Philadelphia (this happens a half dozen or so times a year) and occasionally for pleasure.

How often do you take the train?

1-5x/month

What do you like about the train compared to driving a car?

It is quicker getting from Harrisburg to downtown Philadelphia than driving - no need to sit on the "Schuylkill Expressway" once getting off the Turnpike or to find a place to park downtown. On the way, I can get other things done thanks to the wifi available on most trains. It is nice to let someone else drive for a change.

What are the challenges that come with taking the train?

You have to plan around the somewhat limited schedule of trains to and from Philadelphia, but it normally works fine. You will occasionally have a delay, but the same can be said with the corresponding drive. If you are taking the whole family, it can be a bit more expensive than driving, but still fun.

If you haven't been taking the train more, have you tried more public transportation? Is that possible in your area?

I haven't used public transit locally in Harrisburg.

What do you do for work?

Analyst for a non-profit

What is your household income?

$50,001-$100,000

Figure 5.4. Published response to the query "What's your commute like?" Retrieved from:
https://www.publicinsightnetwork.org/source/en/WITF/insight/583250f55183/whats-your-commute-like

Making it easier for journalists to publish entire source responses saved them a step: the extra contact with sources. But it also removed an opportunity to evaluate source credibility. Calling sources added an extra layer of verification just by allowing journalists to triangulate their contacts, since sources responded to queries by email. Journalists who used PIN generally did not believe source fraud was a problem, however. Aside from the case mentioned earlier in this chapter, no one I interviewed who used PIN could recall finding sources who had made serious attempts to pose as other people. (There have been many not-so-serious attempts. Some people have registered under names that were obviously fake, such as "Mickey Mouse," "Ron Burgundy," and "Joe Blow.")

Data-Driven Verification of Source Objects

While journalists have remained reluctant to trust real people, they have become more comfortable with the objects that real people produced. Journalists have evaluated eyewitness photos and videos using a set of processes called "information forensics." The company Storyful has developed a specialty in information forensics, handling credibility evaluations for other news organizations. Some journalists have tried to crowdsource the verification of source objects. Other journalists have developed and shared their own best practices for evaluating credibility.

Data-driven evaluation differed from other forms of source credibility assessment not just in its emphasis on objects. It also expressed the results of its assessments in terms of probabilities. That is, sources were not deemed credible or not credible. Rather, journalists assessed the likelihood that sources were credible based on the data associated with them.

Information Forensics

The term "information forensics," sometimes also called "computer forensics" or "digital forensics," was originally associated with business data security and Internet crime investigations. One of the first companies to identify itself as being in the field of information forensics touted its ability to solve the "most challenging information recovery problems, especially those involving password protection, encryption, document analysis and steganography," (Inforenz, 2003) or the practice of finding hidden messages. Inforenz's techniques, which involved the use of a supercomputer called Deep Thought, helped crack a code that was supposed to reveal where deceased British actress Diana Dors had hidden her fortune. (Cracking the code only solved part of the mystery, much to her son's dismay.) In 2006, interest in information forensics prompted the Institute of Electrical and Electronics Engineers to create a new journal: *Transactions on Information Forensics and Security.* Articles published in the journal have addressed topics such as iris-based identification systems, the detection of fake images, and encrypted communications.

Although it originated as a topic of interest among computer scientists, information forensics has more recently been applied to validating the credibility of crowdsourced data. Patrick Meier (2011), a scholar whose work has involved mapping mobile communications data in order to improve disaster response, has called for humanitarian organizations to develop information forensics strategies in order to verify crisis communications. One of his projects has been the

MicroMappers initiative, which enlisted volunteers to verify whether social media posts that appeared following disasters were relevant to emergency responders. After Typhoon Haiyan struck the Philippines in November 2013, MicroMappers volunteers sifted through 35,000 tweets and images and identified around 5,000 that were relevant (Meier, 2013).

The first dedicated effort to apply information forensics to journalism may have been the BBC's User-Generated Content (UGC) Hub, which was created in 2005 to evaluate the credibility of eyewitness accounts, photos and videos that had been submitted via email. The UGC Hub eventually expanded its reach to evaluate social media content as well (Turner, 2012).

Information forensics techniques used by journalists have included examinations of metadata—or, information that is embedded within digital artifacts. Journalists interrogate those artifacts, such as social media posts, photos, and videos—and try to determine whether the metadata associated with them tell a consistent story. Journalists examine metadata because they are difficult to alter. The metadata attached to Twitter posts included 31 fields as of November 2013, including dates and times, locations, and whether tweets had been flagged for potentially sensitive material, such as sexual or violent content (Ford, 2013). Digital photos have contained Exchangeable Image File (EXIF) data, which include technical information like shutter speed and resolution, but also other more general information, such as the type of camera that was used and the dates and times that photos were taken (although these are only accurate if users set them properly on their cameras). By examining EXIF data, analysts have spotted inconsistencies that indicated photos had been manipulated (Fan, Cao, & Kot, 2013).

These techniques were used most often by journalists in the assessment of social media that came from eyewitnesses to breaking news events. Journalists wanted visuals that were compelling and that could provide evidence of what was really happening amidst a chaotic torrent of conflicting information. Visual media made events seem more credible. They were "real, concrete proof of the events being depicted" (Zelizer, 2002, p. 699), considered to be more trustworthy than the words of strangers.

Outsourcing Data-Driven Evaluation

Because evaluating the credibility of digital media could be time-consuming and complicated, some news organizations outsourced the process. The organization Storyful has specialized in evaluating social media content. Its journalists do not write stories; rather, they investigate the origins of photos and videos on behalf of paying clients, most of which are news organizations. CEO Mark Little has described his company's goal as separating "news from noise" (Little, 2014). Storyful journalists have combed through social media content based on what appeared to them to be the biggest news stories of the day, in addition to stories that were of particular interest to clients. Storyful posted content on its subscriber-only website that journalists believed to be the most compelling and relevant.

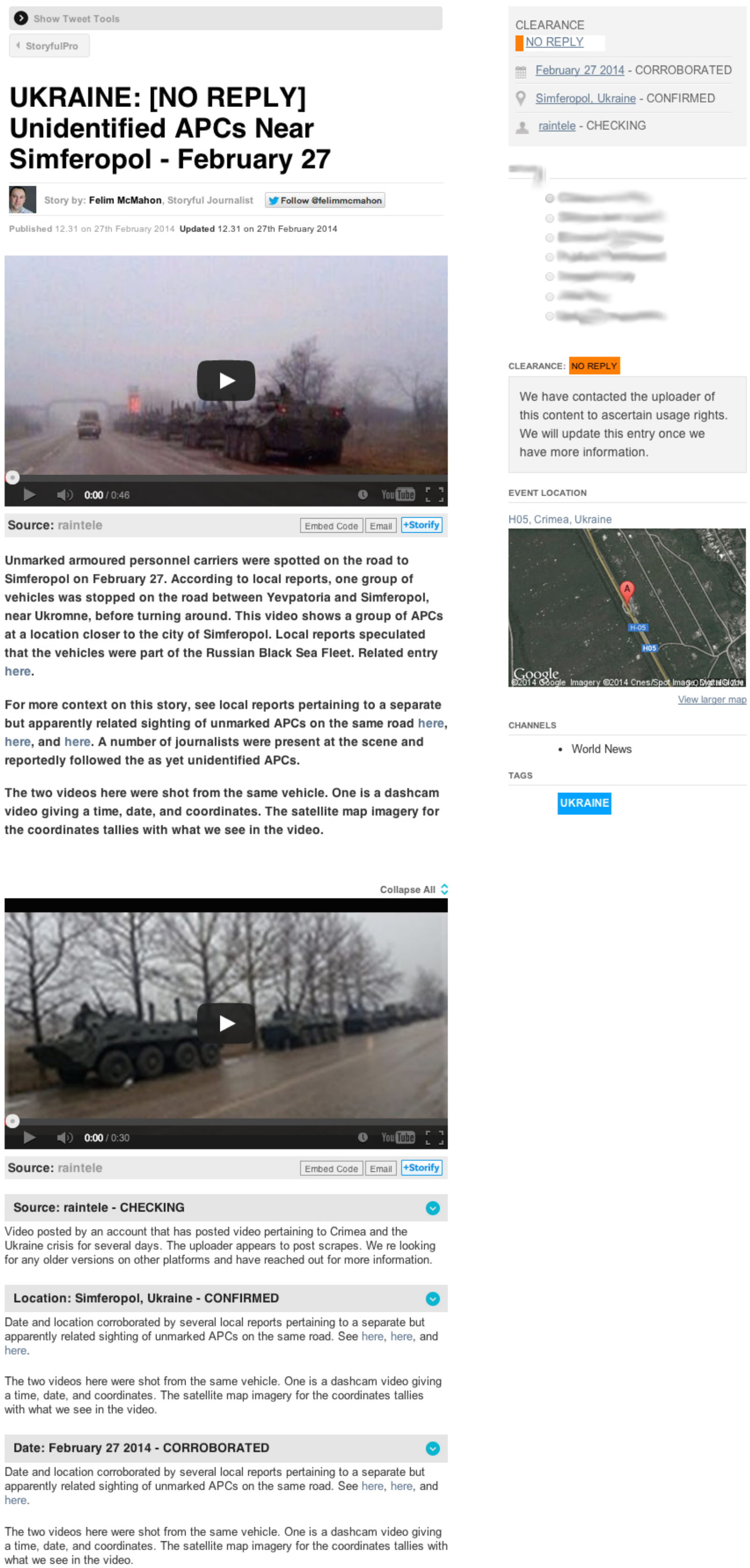
Storyful journalists have relied on Twitter lists to help them decide which social media content to investigate. As described in chapter 3, Storyful created more than 700 lists on Twitter that were usually organized around countries. Most Twitter lists have followed journalists and usual suspects, such as public officials, emergency responders, and non-governmental organization workers. Storyful journalists used the Twitter lists to learn about what was happening on the ground, potentially leading them to other social media users who captured videos or photos at the scenes of breaking news events. Storyful's "primary commandment" has been that there is "always someone closer to the story" (Little, 2014). Thus, the Twitter lists have sometimes served as a starting point for finding videos and photos from eyewitnesses.

Although Storyful's Twitter lists have been heavy on usual suspects, being a usual suspect by itself has not guaranteed inclusion. Storyful journalists have avoided adding users who were too "noisy"—that is, they tweeted so often that they drowned out others on the list. Storyful also looked for users who tweeted consistently about current events in their countries. This often meant excluding more famous journalists who had large Twitter followings. Journalists often cultivated large followings because their tweets were *not* about a consistent topic. Tweeting about a variety of topics has been touted as a best practice for journalists to advance professionally by building a personal "brand" (Fidelibus, 2012). One Storyful journalist cited the example of *Wall Street Journal* reporter Neal Mann, who went by the Twitter handle @fieldproducer:

> He's very good at tweeting the news, but he also likes to tweet Instagram pictures of Brooklyn and what he's eating, and everything else. So those

> kinds of journalists, who are these big figures, are actually less useful because they're not tweeting about a particular subject. (personal communication, October 22, 2013)

Storyful's verification process has typically included an examination of three types of data: the source, location, and date of social media content. Storyful journalists have aimed to learn as much as possible about who uploaded the content, and where and when it was shot. Based on what journalists found, they would label each category as "confirmed," "corroborated," "checking," "unconfirmed," or "unknown." Whether journalists labeled the sources, locations, and dates of social media content "confirmed" (Storyful's highest confidence level) depended on the data they could find.



Show Tweet Tools

StoryfulPro

UKRAINE: [NO REPLY] Unidentified APCs Near Simferopol - February 27

Story by: **Felim McMahon**, Storyful Journalist Follow @felimmcmahon

Published 12.31 on 27th February 2014 **Updated 12.31 on 27th February 2014**

0:00 / 0:46

Source: raintele Embed Code Email +Storify

Unmarked armoured personnel carriers were spotted on the road to Simferopol on February 27. According to local reports, one group of vehicles was stopped on the road between Yevpatoria and Simferopol, near Ukromne, before turning around. This video shows a group of APCs at a location closer to the city of Simferopol. Local reports speculated that the vehicles were part of the Russian Black Sea Fleet. Related entry here.

For more context on this story, see local reports pertaining to a separate but apparently related sighting of unmarked APCs on the same road here, here, and here. A number of journalists were present at the scene and reportedly followed the as yet unidentified APCs.

The two videos here were shot from the same vehicle. One is a dashcam video giving a time, date, and coordinates. The satellite map imagery for the coordinates tallies with what we see in the video.

Collapse All

0:00 / 0:30

Source: raintele Embed Code Email +Storify

Source: raintele - CHECKING

Video posted by an account that has posted video pertaining to Crimea and the Ukraine crisis for several days. The uploader appears to post scrapes. We re looking for any older versions on other platforms and have reached out for more information.

Location: Simferopol, Ukraine - CONFIRMED

Date and location corroborated by several local reports pertaining to a separate but apparently related sighting of unmarked APCs on the same road. See here, here, and here.

The two videos here were shot from the same vehicle. One is a dashcam video giving a time, date, and coordinates. The satellite map imagery for the coordinates tallies with what we see in the video.

Date: February 27 2014 - CORROBORATED

Date and location corroborated by several local reports pertaining to a separate but apparently related sighting of unmarked APCs on the same road. See here, here, and here.

The two videos here were shot from the same vehicle. One is a dashcam video giving a time, date, and coordinates. The satellite map imagery for the coordinates tallies with what we see in the video.

CLEARANCE
NO REPLY

February 27 2014 - CORROBORATED

Simferopol, Ukraine - CONFIRMED

raintele - CHECKING

CLEARANCE: NO REPLY

We have contacted the uploader of this content to ascertain usage rights. We will update this entry once we have more information.

EVENT LOCATION

H05, Crimea, Ukraine

Google ©2014 Google Imagery ©2014 Cnes/Spot Image, DigitalGlobe

View larger map

CHANNELS

- World News

TAGS

UKRAINE

Figure 5.5. Example of Storyful story page, February 27, 2014.

Storyful's validation process began with research on the sources of particular digital artifacts. Journalists would search for contact information for the person or organization that uploaded the content. Tracking down the original sources of social media content could sometimes be difficult. Compelling photos and videos could go viral quickly, which often obscured the identities of the original uploaders. Rather than linking back to the original, some social media users would copy them and post them to their own pages, a process sometimes called "scraping." This was why, in the above example, Storyful journalists labeled the Source category as "checking"—they were unsure whether the YouTube user raintele was the one who shot the videos, because, after reviewing other videos on the account, journalists found that raintele "appears to post scrapes." Finding original uploaders could be complicated by the fact that content often appeared on multiple social media platforms. The most popular platforms often varied by country. In Russia, for example, VKontakte has been more popular than Facebook or Twitter; in China, QZone, RenRen and Sina Weibo have been among the most popular social media sites (Cosenza, 2013).

When they determined who the original uploaders were and attempted to contact them, Storyful journalists would also search for additional information to learn more about who they were. This followed a similar practice by the journalists I described in chapter 4 who used digital search tools to gather as much data as possible about real people. Journalists in chapter 4 gathered information to audition potential news subjects; in order to be chosen, the real people they researched had to be sufficiently important or interesting. Storyful journalists conducted similar research in order to audition potential *sources*. It was not enough for sources to be important or interesting; they had to be credible. Credibility was judged by data consistency. Storyful journalists would examine the social media account that uploaded the photo or video in question. Had there been other uploads in the past? Were they from the same general location? Were they taken with the same type of camera? Did the uploader have an Internet presence aside from that social media account? Answering "no" to any of those questions might give journalists pause.

Storyful's process for confirming the location of social media content has often involved Google Maps. The application, and particularly Google's Street View service, could indicate whether landmarks or other geographic features in social media content were consistent with the photos that Google captured at those locations. Street View allowed Google users to see locations around the world at street level. Google captured the images by having employees drive down streets in vehicles that had panoramic cameras mounted on their roofs. Street View launched in 2007. Since then, its vehicles have photographed much of the U.S. and Europe. Google has also covered most of Australia, New Zealand, Japan, and South Africa. However, large gaps remained in Street View as of February 2014. Most of Asia and Africa had not been photographed, and Street View's coverage in South America was mostly in Brazil and Chile.[6] Google has also repeatedly declined to disclose how often it planned to update Street View. Unless Google's vehicles make return visits, particularly to volatile locations, the value of Street View to journalists could diminish as landmarks and landscapes change over time.

[6] As of February 28, 2014, according to Google's "Behind the Scenes: Street View" page: http://www.google.com/maps/about/behind-the-scenes/streetview/

For areas not covered by Street View, Storyful journalists have used other methods to confirm the locations of social media content. Sometimes, they have sought to compare the content under investigation to past photos and videos that "trusted" users, such as journalists, had taken in similar locations. A protest in a well-known city square, for example, would be relatively easy to corroborate, since many other photos of that location likely existed online. Sometimes, Storyful journalists searched for news accounts that provided visual data they could use to corroborate locations. Journalists could also look for location clues like street signs in the photos and videos themselves, and listen for any voices that might be speaking local languages.

Confirming the dates that photos or videos were taken was the most difficult part of the process. When parts of Mexico were experiencing flooding in 2013, Storyful examined photographs that claimed to have been taken in those areas. "We saw some flooding of a bridge, there was another newspaper report of a flooding of a bridge in that area, but we still couldn't 100 percent say that was that bridge on that date" (personal communication, October 22, 2013), said one journalist. When Storyful journalists were confident about the locations of photos and videos, sometimes they would search for local weather reports to see whether conditions were a match for that date. If objects in the photos and videos casted shadows, journalists could try to judge whether what they saw was consistent with the time of day that uploaders had claimed.

Little has resisted descriptions of Storyful as being in the business of "verification." He preferred the term "validation" (personal communication, February 10, 2014). Even when Storyful journalists labeled all three fields—source, location, and date—as confirmed, they did not put any kind of stamp of approval on the content. Rather, decisions about whether to trust the videos and photos that were posted on Storyful's dashboard rested with clients.

Crowdsourcing Data-Driven Evaluation

Some journalists have sought help from the public or segments of it to evaluate the credibility of potential sources. Storyful used a crowdsourced approach in its Open Newsroom, a message board it maintained on Google. Former NPR senior strategist Andy Carvin took a crowdsourced approach to evaluating the credibility of social media posts that described unrest during the Arab Spring. Journalists have also used crowdsourced evaluation on more limited assignments.

Chapter 1 included a description of crowdsourcing and the role it has played in journalism. The examples I included involved enlisting the help of volunteers to sort through voluminous materials in order to find newsworthy information. Some journalists have also, however, employed crowdsourcing to evaluate the credibility of information. Digital media scholar Alfred Hermida (2012) has called this practice "collaborative verification."

Storyful has crowdsourced the evaluation of credibility through its Open Newsroom. The message board on Google+ is open to anyone who wants to read it, but only a limited number of people can post messages. Storyful journalist Markham Nolan (2013) wrote in defense of limiting the number of contributors that "polemics and politics can muddy the waters, and this is a place for collaborative, empirical information sharing, so we’re restricting access, rather unapologetically." Many people with posting privileges have been journalists. However, one of the Open Newsroom's most active participants has been non-journalist Eliot Higgins, also known by the moniker "Brown Moses." Higgins is a blogger and unemployed finance worker who became known as an international weapons expert through his meticulous analysis of social media footage that came out of the Syrian conflict (Weaver, 2013).

Storyful has often used the Open Newsroom to tap the expertise of journalists who have regional expertise. Several posts included videos in which people were speaking languages that Storyful journalists did not know, such as Russian, Ukrainian, and certain Arabic dialects. Other posts asked regional experts to provide context for the photos and videos they were seeing. For instance, one Storyful journalist posted that he had seen several recent videos depicting bombing in the Syrian neighborhood of Daraya. "Why are we seeing so much bombing on this location now? How many civilians are left in Daraya?" (McMahon, 2014). Another journalist answered that about 10,000 people lived there, roughly 10 percent of the neighborhood's population before that country's civil war began in 2011. Other posts in the Open Newsroom asked for assistance determining whether videos and photos had been edited, or where they had been taken.

Other journalists have also tried to crowdsource the evaluation of source credibility. Former NPR senior strategist Andy Carvin adopted this technique as the Arab Spring unfolded in 2010-2011. On Twitter, he searched for people who claimed to be in the countries where uprisings were occurring, and gradually developed lists of people whose accounts he trusted. When he saw tweets about new developments, he would retweet them and ask others to confirm whether the tweets were true. Carvin's use of retweets differed from other ways that people had used the retweet function: "as a form of information diffusion and as a means of participating in a diffuse conversation" (boyd, Golder, and Lotan, 2010), serving a similar function as forwarding an email. Carvin was participating in some Twitter conversations about the Arab Spring, but he was also questioning the veracity of the conversations themselves.

Figure 5.6. Examples of Andy Carvin's tweets during the Arab Spring.

An examination of Carvin's more than 60,000 tweets during the Arab Spring found that almost half of the material he tweeted came from non-elite sources, including activists and bloggers (Hermida, Lewis, & Zamith, 2014). Other journalists have also experimented with crowdsourcing the evaluation of credibility. Journalists with the *Guardian* and the *New York Times* asked Twitter users for help verifying information during coverage of UK riots in 2011 (Vis, 2013).

Informal Sharing of Best Practices

Journalists have also developed their own best practices for using data to evaluate credibility. Those practices have often included the use of software that was not originally developed with journalists in mind, but nonetheless was used frequently for that purpose.

Several journalists have come up with their own recommendations for evaluating online content. The European Journalism Centre's *Verification Handbook* included case studies as well as a list of tools. Authors cautioned journalists that there was no single formula for evaluating credibility. "This realization that there is no silver bullet, no perfect test, is the starting point for any examination of verification, and for the work of providing reliable information in a disaster" (Silverman & Tsubaki, 2014, p. 10). Josh Stearns with the media advocacy organization Free Press compiled a list of tools on the website VerificationJunkie.com. Steve Buttry (2013), Digital Transformation Editor with Digital First Media, drafted a list of recommendations for evaluating Twitter content, such as examining user profiles, their followers and who they follow, and asking users tough questions if journalists doubt their credibility. During breaking news events, former Huffington Post editor Craig Kanalley (2009) said that journalists should search tweets to determine the most relevant keywords and then search as far back as possible to the earliest tweets that mentioned the events. "Unless these Tweeters are psychic, they're probably among the first to have knowledge something's up and they may have additional context depending on the story."

Tools that journalists recommended included reverse image search software, which could identify whether photos were new, or scraped from other websites. Google's image search allowed users to upload images, paste their URLs or drag the images themselves into a window. Google then tried to locate the photo elsewhere on the web. If it found multiple versions of the image, journalists could try to determine which one was the original (often, the original was the largest, or the one with the best resolution). TinEye has offered a similar service, although its image database included fewer websites. Unlike Google, TinEye could sort images by date. It additionally offered a "Compare" button that makes it easy to spot whether photos had been altered.

Websites aimed at debunking rumors and mistruths could also be useful to journalists. Snopes originated in 1995 as a site that investigated urban legends. It later expanded to include examinations of all kinds of rumors and hoaxes. Snopes' "Fauxtography" section has included analyses of photos, such as those that users claimed depicted natural disasters, accidents, medical oddities, celebrities, and ghosts. Users could submit photos and videos for interrogation by the Snopes team, which consists of Barbara and David Mikkelson, a married couple in Los Angeles. Fact-checking websites like Factcheck.org, PolitiFact, and the *Washington Post*'s Fact Checker column have assessed statements by politicians. Sometimes, they have assessed statements by non-politicians as well, such as the talk show host Glenn Beck, the news/gossip website Buzzfeed, and the television show "The Walking Dead," which depicted the Centers for Disease Control and Prevention as having a self-destruct mechanism that could go off during a zombie apocalypse. PolitiFact and Fact Checker apply ratings to the veracity of claims—in Fact Checker's case, a statement could rate between 0 and 4 Pinocchios. PolitiFact's worst rating has been "Pants on Fire" (which was the rating for the CDC self-destruct scenario, by the way). PolitiFact founder Bill Adair said one goal of the rating system was that, over time, news audiences could see trends in truth-telling. “I think of it like the back of a baseball card. You know—that it’s sort of somebody's career statistics" (C-SPAN, 2009).

Some websites have attempted to apply credibility scores for people. Klout may be the best known. Klout users are awarded numerical scores based on their social media activity, their connections, and the number of people they "influence," as indicated by how many people retweet them and comment on their accounts (Fernandez, 2011). A service called TrustCloud created a rating based not only on social media activity, but also on the participation of users in "virtuous online behaviors" such as writing reviews on TripAdvisor, room sharing through websites such as AirBnb, or car sharing on sites such as GetAround (TrustCloud, n.d.). Computer scientists have proposed creating new algorithms for evaluating the credibility of social media posts. Such algorithms could consider "features from users’ posting and re-posting (“re-tweeting”) behavior, from the text of the posts, and from citations to external sources" (Castillo, Mendoza, & Poblete, 2011, p. 675;

see also Canini, Suh, & Pirolli, 2011 and Al-Eidan, Al-Khalifa, & Al-Salman, 2010). A proposed system called Seriously Rapid Source Review (SRSR) included a "high precision eyewitness detector" (Diakopoulos, Choudhury, & Naaman, 2012, p. 9) and classifier filters to help journalists find credible eyewitnesses.

Limits of Data-Driven Tools

Data-driven evaluation tools tended to focus on digital artifacts rather than people, and probabilities rather than absolutes. Most journalists who used data-driven tools to evaluate source credibility said they believed humans would always have a role in the process.

Credibility assessments that prioritized the content of digital artifacts over the people who produced them could miss clues that provided context for those artifacts. One video, for instance, included an invitation to Russian President Vladimir Putin to visit the Ukrainian city of Lviv. Storyful journalists noted that the video was spreading quickly on social media but were not sure why. One of the Russian translators who frequented Storyful's Open Newsroom explained that it was a sarcastic video: "they invite Putin to Lviv to see it is a free city and no one kills there for speaking Russian (because they say in Russia and eastern Ukraine that there are tanks in the city and people are killed for speaking Russian)" (Kinal, 2014). Simply going through Storyful's standard process of checking the source, location and date of this video would have been insufficient to convey its true meaning.

Data-driven evaluation tools returned results that were based on probabilities that sources were credible, rather than a yes or no determination. On the one hand, stating that a source had a 90 percent chance of being credible was a more honest approach. Could journalists ever be 100 percent sure of a source's credibility? On the other hand, expressing credibility as something other than the answer to a yes or no question left unclear the answer to an important matter unresolved: should journalists use a particular source, or not? If so, what caveats, if any, must journalists include in their writing about the trustworthiness of those sources?

Because of the limits of data-driven source evaluation, journalists told me they would never leave credibility determinations entirely up to algorithms. Of course, there was another reason that journalists would want to remain involved in credibility assessments: it has been part of their claim to professional authority. Journalists believe their ability to find knowledgeable, credible sources differentiates them from news aggregators (Anderson, 2013b), bloggers (Lowrey, 2006), and robots (van Dalen, 2012). Ceding that authority to robots would jeopardize their own credibility.

Credibility, Unevaluated

Journalists have always been vulnerable to hoaxes. But in the digital age, when journalists had more tools available than ever to evaluate credibility, they still used some sources without bothering to check them out. Journalists were particularly vulnerable to hoaxes when deadlines were short, and when they had little fear of potential fallout. While they acknowledged that hoaxes were a problem, journalists also tried to distance themselves from accepting full responsibility for them.

Fooling Journalists

Some hoaxes began when social media users circulated old photos and videos and claimed that they were visual evidence of more recent events. Several videos that were circulated when a Virginia Tech police officer was shot in 2011 were actually from 2007, when a gunman killed 33 people at the school. Photos that users claimed showed Hurricane Sandy hitting New York City in 2012 were actually taken during earlier storms. A photo that depicted passengers holding oxygen masks over their faces was claimed to have come from Air France flight 447 before it crashed in 2009; it was actually a still from the television show *Lost*.

Social media hoaxes have also included photos that had been altered. Hoaxsters have used Photoshop or other photo editing software to insert new elements into otherwise banal photos. Sharks have been one popular addition; hoax photos have depicted them lurching at low-flying helicopters, looming ominously behind scuba divers, and swimming in the streets of New York City and San Juan, Puerto Rico after floods.

Journalists usually approach unfamiliar sources with skepticism. They also have resources available to help them spot fake photos and videos. And yet, journalists have often been fooled.

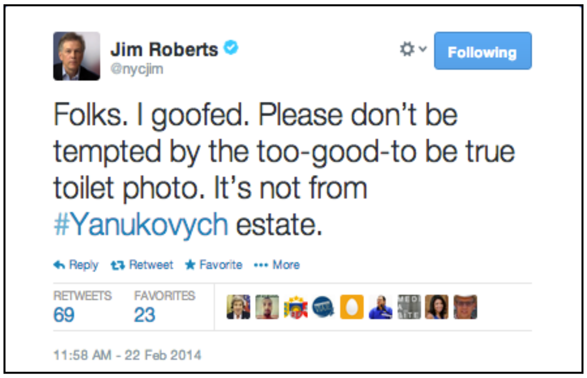


Figure 5.7. Tweet from Mashable Executive Editor Jim Roberts, February 22, 2014.

Jim Roberts, Executive Editor with the website Mashable and a former *New York Times* and Reuters editor, admitted that a photo he had tweeted turned out to be fake. Many social media users were circulating the photo of a gold-plated toilet, claiming that it came from the mansion where deposed Ukrainian leader Viktor Yanukovych once lived. A reverse image search, however, revealed that the photo had been circulated months before the Ukrainian conflict began. Some users traced it to an old apartment listing in Cyprus.

Why They Were Fooled

Journalists were often fooled as they rushed to report the latest developments in breaking news stories. But speed was not the only factor. Some journalists acknowledged that they made less of an effort to evaluate the credibility of sources when they believed that stakes were low. That included sources whose contributions were mundane and stories that were compelling but not serious.

Breaking news events have been key opportunities for the perpetrators of hoaxes. One frequent tactic was creating fake social media accounts that mimicked those of usual suspects. The *Globe and Mail* erroneously reported the death of former National Security Administration chief Michael Hayden after seeing a tweet from the account @HeadIineNews (note: the letter after the "d" is a capital "I," not a lower-case "l"). The account used the same avatar as that of @BreakingNews, which was owned by NBC. Other hoaxsters created social media accounts that bore the names of real people who suddenly appeared in the news. The *New York Post* admitted that it was fooled by someone who posed on Facebook as Ryan Lanza, whose brother killed 26 people in 2012 at an elementary school in Newtown, Connecticut.

Other hoax perpetrators had more serious ambitions, such as mobilizing support for political causes. A photo posted to Storyful's Open Newsroom had been tweeted by opponents to Syrian president Bashar al-Assad. The photo depicted a boy with a large open chest wound. The tweet included the hashtag "#AssadWarCrimes." One forensic image analyst on the Open Newsroom said the photo was at least a year old, and the coloring was inconsistent:

> The wound was likely digitally altered or added. I'm also seeing a huge amount of linear brightness applied -- not normalization, histogram equalized, or gamma corrected. It was just brightened. The source was dark. The red from the wound is disconnected from the rest of the colorspace. (Krawetz, 2014)

Journalists have sometimes not bothered to evaluate the credibility of mundane sources. Marketing professional Ryan Holiday was aware of that, and used it to concoct a publicity stunt on Help a Reporter Out (HARO), one of the sourcing databases described in chapter 3. Anyone can register as a source on HARO. Queries from reporters were compiled into three emails each weekday, and sent to sources. Each email could contain 30 or more queries. Holiday decided that he would respond to every HARO query he could over a period of several weeks. When he did not fit the profiles of the sources journalists were seeking, he would lie. Holiday was published in more than 20 articles saying, among other things, that he was an insomniac, that someone sneezed on him at a Burger King, and that he collected vinyl records (Thier, 2012).

Holiday's hoax snared hobbyist bloggers as well as journalists at major national outlets like the *New York Times* and ABC. If they had done any sort of research on Holiday, they would have had reason to be wary of him. Googling his name turned up websites on which he described himself a "media manipulator" and promoted his book, called *Trust Me, I'm Lying.* The book described his experiences gaming the "media agenda" by, for instance, vandalizing billboards that advertised a movie he once promoted. He photographed the vandalized billboards and anonymously emailed the photos to bloggers. The bloggers, who appreciated the scoop, published the photos, stoking controversy about the movie and generating enough publicity that some larger media outlets took notice. Holiday called that process, which he often repeated, "trading bogus stories up the chain" (2012, p.

146). Not coincidentally, Holiday's book had been published around the time of his HARO stunt.

News organizations sometimes opted not to check the credibility of stories that were compelling, fun, or both. One example was a video titled "Worst Twerk Fail EVER – Girl Catches Fire!" that appeared on YouTube in September 2013. The video depicted a woman gyrating (in a style known as "twerking") to a song. As she danced, she did a handstand against a door. Then someone opened the door. The twerking woman fell over into a glass table, where candles and alcohol had been sitting. One of her pant legs caught on fire before the video abruptly stopped. Within days, the video had gone viral.[7] It was also covered on MSNBC and the television programs "The View," and "The Talk," as well as in some newspapers. Then, late night talk show host Jimmy Kimmel revealed that he had staged the whole thing. He released a longer version of the video that showed him entering the room and extinguishing the fire.

Storyful had actually questioned the video's authenticity from the start. Before Kimmel revealed that it was a hoax, Storyful journalists noted certain characteristics of the video that gave them pause (Jimmy Kimmel Live, 2013):

> -Blunt editing at the end of the video, cutting off the entire aftermath
> -Question mark over the nature of the woman's fall. She appeared to stabilise on the door before the fall. It also appeared she pushed her left foot off the door. (Watch from 26 seconds to 29 seconds)
> -Question mark over whether there is a sound of glass breaking just before the woman hits the glass (28-second mark)

[7] There is no one definition for "virality," and the threshold is likely a moving target. However, one blogger (Nalts, 2011) proposed that videos should be deemed viral if they generated more than 5 million views in less than a week. The "Twerk Fail" video was viewed more than 9 million times in its first week.

-Question mark over why, having fallen onto the candles and bottle of liquid, only her frontal area caught fire? (Kerr, 2013)

Storyful journalists also questioned why they were unable to find any data on the video's uploader, who identified herself on YouTube as Caitlin Heller. They tried to track her down on other social media platforms, but none of the Caitlin Hellers they found were a match. Kimmel revealed that the YouTube uploader's real identity was Daphne Avalon, a professional stuntwoman.

What to Do?

Revelations of hoaxes sometimes led to embarrassed apologies from journalists. But in other cases, journalists threw up their hands. How much responsibility should they bear for vetting sources on mundane topics? And should truth always trump a good story?

Holiday said that his stunt aimed to expose how the "sausage" of journalism was made. But as Poynter's Craig Silverman (2012) responded, "Are you interested in hearing about the sausage from the guy who keeps dropping mouse feces into the grinder?" How much proof should journalists require of alleged insomniacs? Would a doctor's note suffice? Should journalists observe them for a night? Surely, journalists should be allowed to take sources at their word when the risks of being wrong appear to be low. After all, "empires will not fall because [Holiday] claimed someone once sneezed on him" (Thier, 2012).

But journalists cannot always predict what will happen if lies go unchecked. Huffington Post readers donated more than 60-thousand dollars to a woman whose column "Why I Make Terrible Decisions, or Poverty Thoughts," turned out to be less than autobiographical (Leicht, 2013). News audiences also donated money to a New Jersey waitress who falsely claimed that customers stiffed her on a tip because she was a lesbian (Makin & Bichao, 2013). Readers caught in those lies likely would have preferred more stringent credibility checks.

Journalists were also ambivalent about how much responsibility they should bear for verifying viral stories. Virality itself could be newsworthy, some journalists argued, regardless of whether stories were actually true. "You are seeing news organizations say, 'If it is happening on the Internet that's our beat'" (Somaiya & Kaufman, 2013), according to Joshua Benton of Harvard University's Nieman Journalism Lab. The economics of viral stories have also been difficult to resist; they drove additional traffic to news websites, generating additional advertising revenue.

In both cases—the mundane and the viral—journalists have suggested that distancing themselves from the verification process may be the best strategy. Like Tom's liberal application of "he saids" in his story, journalists who wanted to shield themselves from the potential fallout from fakes advocated choosing their words carefully. Andrea took that strategy in an example from chapter 4, when she had been unable to confirm a breaking story that her competitors already had. She attributed her story to "multiple media reports." "If you see like 'media reports,' or 'according to media reports,' or 'reportedly,' that kind of means they haven't verified it themselves" (personal communication, September 21, 2013), she explained. In other instances, news organizations used words like "claim" to try to suggest that sources had not been verified (Weigel, 2013).

Unverifiables

Data-driven tools, when journalists used them, opened new opportunities for publishing digital artifacts from real people. But real people themselves were often too risky. I want to return here to the point I made in Chapter 1 about the differences between news sources and news subjects. Sources provide information; subjects provide drama. Credibility is important for sources, but it is not important for subjects. Thus, journalists are more likely to treat real people as subjects, rather than sources.

This was particularly clear in an example that came up during my interview with Brenda. She had written a story about a domestic violence case involving a boyfriend and girlfriend. After Brenda's story was published, the girlfriend called her, in tears. Brenda had not spoken to the girlfriend before—her article had been based on court documents, interviews with attorneys, and her observations from the boyfriend's arraignment. But the girlfriend had seen the article in the newspaper, and tracked Brenda down. The girlfriend said her boyfriend had been released on bail, and called her, threatening to kill her. She also said that prosecutors and police had botched the case; they were supposed to have made sure that her boyfriend had no access to guns, but he did. Brenda met with the girlfriend, interviewed her, and believed her. The girlfriend's face looked bruised and scarred.

Brenda confronted the DA's office, and attorneys agreed to look into the allegations.

> Brenda: So I wrote the whole story, and it never came out.
> Katherine: Why not?
> Brenda: My editors felt that it was a little sketchy. Had she had been like a porn star, or a Lindsay [Lohan], or, you know? They would've been all over that story. But a regular average person, it's sketchy. (personal communication, September 13, 2013)

Brenda was convinced that the girlfriend was telling the truth, based on her battered appearance and their conversation. But Brenda's editors considered the girlfriend too big of a risk. She had been deemed a suitable news subject, because Brenda had written about her before—but she was not a suitable source. Thus, the girlfriend's depiction in the news was out of her control.

CHAPTER 6: MANAGING SOURCES

Journalists have used data-driven tools to help find and evaluate potential sources. But an additional challenge remained: enlisting the cooperation of sources. The usual suspects were often willing sources, but real people could be more reluctant. Winning their trust often required delicate negotiations, a process that some journalists have called "source management." Sources that required substantial management were less attractive to journalists. Storyful and the Public Insight Network both aimed to make the source management process easier. Storyful focused on getting permission to use objects that real people had produced. PIN's goal was larger and more difficult to achieve: not just convincing real people to be sources for specific stories, but engaging them on an ongoing basis.

Source Management

One of the investigative journalists I interviewed introduced me to the term "source management." Serge Kovaleski is a Pulitzer Prize-winning journalist with the *New York Times* who has reported on several major national stories, including the Eliot Spitzer prostitution scandal in 2008, the Colorado movie theater shooting in 2012, and the Boston Marathon bombing in 2013. He said his work had often depended on his ability to persuade reluctant sources to share information.

> It's even hard to explain exactly how to do it. It's just that it's a part of how you read people, how you sense them, how you project yourself. Being authoritative about what you're doing is a huge plus to getting people to feel

> comfortable, handling information they give you well. (personal communication, March 6, 2014)

Source management can describe all aspects of how journalists interact with sources in order to gain and maintain their trust. All kinds of factors could influence source management, including whether sources were the usual suspects, real people, or journalists; what roles the sources would play in particular stories; and whether the sources were likely to be useful for future stories.

It is hard not to see similarities between source management and the concept of "news management." While source management describes efforts by journalists to elicit cooperation from sources, news management describes "efforts of political actors to shape the way in which media organizations report politics" (Brown, 2011, p. 60), particularly by using institutionalized press offices, which have developed formal strategies for communicating with journalists. News management emerged in the 20th century. It has been used to describe the FDR administration's approach to controlling the flow of news during World War II. The White House limited journalists' access to information and to war zones in an attempt to maintain public support for the war. FDR's administration also created an Office of Censorship, which reprimanded journalists who were deemed not to be sufficiently patriotic (Steele, 1985).

Source management is not simply a mirror image of news management; it is an opposing force. It is a strategy by journalists to find vulnerabilities in systems that limit the flow of information. It is a technique that counters the control of powerful sources. However, unlike powerful sources, journalists have generally not had institutionalized offices that were dedicated to source management. There have not been "source relations" departments at news organizations the way the usual suspects have often had "media relations" departments. Source management has generally been something that journalists have pursued on their own.

There have been some attempts to make source management less of an individual undertaking, however. Some of these attempts have related to what has become a buzzword at news organizations in the digital age: "engagement."

Engagement: Two Definitions

Engagement, at its most basic level, describes a commitment of news audiences to a news product. Engaged audiences are loyal and feel a sense of personal investment in the news they consume. News organizations have wanted to maximize engagement for two reasons. First, it can be monetized. Having loyal audiences can translate into higher revenue from subscriptions and advertising, and help news organizations be financially sustainable over the long term. Second, greater engagement can lead to better reporting. Journalists want to do work that audiences value. Engaged audiences provide feedback to journalists that can help them improve their work. And, since any member of a news audience could someday be a source, engagement is also a form of source management. Engaged audiences make for cooperative sources.

But these twin objectives have led news organizations to different, and sometimes conflicting, ways of increasing engagement. The first objective is fulfilled according to what sociologists Luc Boltanski and Laurent Thevenot (1999) would call a "market" "order of worth." Market-based engagement is measured based on its ability to generate revenue. The second objective is evaluated according to a "civic" order of worth. Civic-based engagement is evaluated according to its ability to promote a common good. Market-based engagement is easily quantified; civic-based engagement is not.

Although market-based engagement is quantifiable, news organizations have struggled to figure out how, exactly, to quantify it. Voluminous data are available about the behavior of online visitors, but news organizations have been unable to agree on which metrics best represent engagement (Graves & Kelly, 2010). Engagement metrics have often been based on online traffic, as in the number of times visitors to a website click on its pages, or on elements on those pages. Clicks can be counted various ways, including in terms of "pageviews," "hits," "impressions," or "uniques," or the number of clicks that come from distinct, rather than repeat, visitors. One drawback of measuring engagement by online traffic alone was that it led some news organizations to prioritize quantity over quality. It encouraged them to artificially inflate their numbers by creating features that required unnecessary additional clicks, such as slideshows, or by splitting up longer articles into multiple pages.

News organizations have tried to measure engagement in ways other than click volume. They have tracked how much time visitors spent on their sites, whether they tended to leave after viewing only one page (a measurement known as "bounce rate"), and whether users shared links to their sites on social media. Those metrics also have their downsides. Time spent on websites could be artificially inflated by visitors who kept multiple browser tabs open, or simply walked away from their computers. Websites with low bounce rates could employ tricks to make themselves "stickier," such as by making it hard for visitors to find the information they wanted. The sharing metric could encourage news organizations to use "clickbait headlines and giant Like buttons" (O' Donovan, 2014) to influence user behavior.

Despite flaws in the measurement process, market-based engagement has shaped editorial decisions at news organizations. Journalists have been rewarded, formally and informally, for writing stories that generated pageviews, likes and shares (Anderson, 2013a). Journalists have contested the legitimacy of market-based engagement as a means for assessing news value—"people click on cats, after all" (Fink & Anderson, in review), but also recognized that it could affect their careers.

Part of the reason market-based engagement has overshadowed civic-based engagement is its ability to be quantified, despite its flawed metrics. "You can only manage what you can measure," management consultant Peter Drucker was purported to have said.[8] But many news organizations have also had a practical reason to be preoccupied with market-based engagement; their struggle to monetize their work. Market-based engagement could provide the financial stability that would allow those organizations to pursue civic-based engagement initiatives. First keep the lights on, they could say, *then* do good. Media observers might characterize this as the strategy of the website Buzzfeed, which built a tremendous

[8] This quote, and numerous variants of it, are often attributed to Drucker, although no one seems to know its exact origin.

audience with so-called "clickbait" including cute cat photos, top 10 (or, more often, top 17, or top 23, or some other odd number) "listicles," and quizzes of questionable rigor, such as "Which Nerdy Sidekick Are You?" and "What Haircut Should You Actually Have?" The website then expanded, however, into more serious news offerings, which it has called "Buzzreads." Among them have been articles on problems with the GI Bill, and on the University of Texas' first black football coach. Buzzfeed also sent a journalist to cover Ukraine's government crisis in 2014.

Although they have felt obligated to heed market-based engagement metrics, journalists have preferred to evaluate their work according to a civic order of worth. As described in chapter 4, journalists valued most stories that they believed benefitted the public, by exposing injustices or helping vulnerable populations. While civic-based engagement was more difficult to quantify, journalists also felt as if they exerted greater control over it. Market-based engagement measured how news audiences interacted with content; civic-based engagement described how audiences interacted with journalists themselves. Journalists never knew which stories might generate pageviews, but they felt that they knew which stories could do good by covering issues that mattered to their audiences.

And journalists believed that doing good was a better path to engagement. It built audience loyalty through better reporting. "It absolutely should result in larger audiences, more loyal audiences, more trustworthy content that people value," said Bill Kling, who created the Public Insight Network. "And when you do that, you are in partnership with your audience. And your audience will reward you for it." (personal communication, November 15, 2012).

Those rewards could come in monetary form, such as advertising, subscriptions, or, for public media, donations. But audience loyalty could also pay off in the form of source management. News audiences were full of sources. Not everyone *would* be a source, but anyone *could* be. Thus, building audience loyalty through civic-based engagement could help journalists build cooperation among potential sources.

Getting Permission

Cooperative sources have made journalists' jobs easier. This has explained why, despite their misgivings about relying too much on the usual suspects, journalists returned to them again and again. Objects, like photos, videos, and documents, have also been attractive sources; gaining access to them could be a simpler process than requesting interviews with people. Journalists could even use some objects without asking for permission first.

The Usual Suspects

Journalists found getting permission from the usual suspects to be relatively easy. The usual suspects were motivated to share information because they wanted media attention. They were accustomed to dealing with journalists and had established rules for how they communicated with them. Managing the usual suspects was also something that journalists considered to be part of their regular routine.

Everything that the usual suspects said was on the record, as long as they knew they were talking to journalists. If the usual suspects wanted something not to be on the record, they had to say so. Most journalists I interviewed said it was permissible for a source to tell them something, and then declare immediately afterward that it was off the record. It was not permissible, however, to try to pull something from "the record" after the conversation ended. Those were the rules. The usual suspects could also specify that the information they shared was "on background," which one journalism textbook has defined as statements that are "directly quotable, but they cannot be attributed by name or specific title to the person commenting." Statements could also be made "on deep background" ("usable but not in direct quotation and not for attribution") or "off the record" ("for the reporter's knowledge only") (Mencher, 2010).

Journalists have sometimes not played by those rules. Mayhill Fowler did not identify herself as a journalist when she attended a 2008 fundraiser for Barack Obama at which he made his famous statement that people in small towns "cling to guns or religion" (Fowler, 2008a). She also did not identify herself as a journalist when she spoke with former President Bill Clinton as he campaigned for his wife. But in both cases, Fowler was writing for the Huffington Post's "Off the Bus" citizen journalism initiative. During Fowler's interview with Clinton, he called a *Vanity Fair* writer who had recently profiled him "sleazy," "dishonest," "slimy" and a "scumbag"

(Fowler, 2008b). Fowler captured Clinton's remarks on an audio recorder that she had hidden in her bra. Journalists have also conducted hidden camera investigations, such as NBC's famous "To Catch a Predator" series.

Stealth tactics like those tended to work just once. When journalists have hoped to use sources again, it has behooved them to play by the rules (Pritchard, 2000). The tradeoff has been that the more cooperative the usual suspects were in sharing information, the more banal that information tended to be.

Real People

Getting permission from real people could be a much trickier process. The ways that journalists chose to initiate contact could make all the difference. Kovaleski, the *New York Times* investigative journalist, said that, particularly when he worked on sensitive stories, he introduced himself to sources with an apology.

> Just, sorry to write you out of the blue. I mean, if I was a citizen and I got an email from the *New York Times* about a story I'd be like whoa, you know? Because you can kind of lose sight of that if you're in the business, right? (personal communication, March 6, 2014)

Kovaleski used that approach with a former classmate of Katherine Russell, the widow of accused Boston marathon bomber Tamerlan Tsarnaev. Kovaleski had found Russell's classmate through her Facebook profile, which included a list of her friends. He was not able to contact the classmate through Facebook, but having his name and location made him easily findable through searches of public records. Kovaleski said the classmate told him he had decided to contact him because he appreciated the sensitive approach to his introductory email.

Kovaleski opted not to use email in his initial contact with a source connected to James Holmes, the man accused of a 2012 mass shooting in a Colorado movie theater. Kovaleski learned that Holmes had exchanged a few text messages with a classmate before the shooting. The messages suggested something that journalists had been trying to confirm: that Holmes had been diagnosed with a mental illness. Kovaleski had the classmate's phone number, but he decided he would try first to approach her in person. He went to the woman's apartment building but could not get in. "I didn't want to buzz up, because that's a bad move," Kovaleski said. "If you buzz from downstairs, they're going to say no, probably" (personal communication, March 6, 2014). Kovaleski decided to call the woman instead. She responded, but said she needed some time to think about it. Kovaleski gave her a few days. Then as time grew short before his scheduled flight back home, "I said, what if we try meeting, and if you're not comfortable with me, we'll just call it off? End of story. We'll break it up after 5 or 10 minutes" (personal communication, March 6, 2014). She agreed, and they ended up talking for two hours. Kovaleski used the information she gave him to break the news that Holmes had been diagnosed with “dysphoric mania,” a form of bipolar disorder.

Some investigative journalists said that they always tried to approach sources in person. Walt Bogdanich, another Pulitzer Prize-winning journalist with the *New York Times*, said

> When you're face to face with somebody, you have much more control over the time that you have to do the interview. The person on the phone can hang up, or tell you I'm busy, or somebody stepped out of the office, or whatever. If you go there in person, it is also easier to establish a relationship with the person you're interviewing, which is critically important to build trust. (personal communication, March 7, 2014)

Bogdanich said he also preferred to meet people in person because he believed those meetings held greater opportunities to notice unexpected things that could find their way into his stories.

Journalists may use a combination of approaches. *New York Times* reporter Andy Lehren used Twitter when a source he sought did not return his phone calls. Lehren was working on a story about people who had cheated in the New York City marathon. Lehren identified possible cheaters by analyzing data from past marathons. Computer chips that runners wore marked their times at various points during the race. Lehren found that some runners were missing data, or ran some legs of the race much faster than others. He suspected those runners might have cheated. The source who avoided Lehren's phone messages was one of the suspected cheaters. Lehren found that, while his phone messages had been easy to ignore, his tweets were apparently less so. The source responded to Lehren's messages on Twitter, which accused him directly of cheating. The man then admitted that he had cheated (personal communication, March 6, 2014).

As these examples have illustrated, gaining access to real people often requires empathy, research, persistence, and most of all—time. Investigative journalists are more likely than beat journalists to have that time.

Journalists

Journalists whose reporting was based on their own observations have had the benefit of skipping the permission step. There was no one to ask but themselves.

Journalists did not often interview other journalists, although there have been exceptions. Journalists might be interviewed by news organizations that were deemed not to be direct competitors. Print journalists, for example, have often appeared on television to discuss political or cultural issues on which they have reported. One story from my interviews with beat journalists included a source that was the newspaper's own spokesperson, which was highly unusual. Ryan interviewed the spokesperson about a staff photographer who had been roughed up by police. "Kind of a weird story, I'd never written about a fellow employee" (personal communication, September 11, 2013), Ryan said, in his 23 years of experience as a journalist.

In general, journalists have been willing sources for other journalists—as long as they received credit for their contributions. Knowing how competitive they were, but also how much news organizations hated to attribute information to each other, journalists often accused their competitors of stealing. In the example below, Fox sports journalist Jay Glazer jabbed ESPN after he suspected that they stole his story about a contract extension for New Orleans Saints coach Sean Payton.

Figure 6.1. Tweet from Fox sports journalist Jay Glazer, December 28, 2012.

An ESPN editor responded that it was the network's policy to refer to "sources" when multiple outlets had the story but it had not been officially confirmed. The sports blog Deadspin argued that if ESPN wanted to make it clear that it was referring to other news outlets, it should have used the word "reports," not "sources." "At this point, it is fair to ask 'who cares?'… The problem is in ESPN's subtle blurring of the line between breaking news and reporting it" (Newell, 2012).

Objects

Objects sometimes held more appeal than people as sources. Asking for permission to use a source object usually required a yes or no answer, while getting a person to agree to an interview was often a more complex process. Objects could also be of greater interest because they were not always intended for a journalistic audience. That could make the objects seem more authentic than the self-conscious performances of people. Some objects also required no permission at all—or it was easy to use them without asking and not get caught.

Asking for a photo was one thing, but a conversation was another. Photos and other objects were fixed; what you saw was what you got. Interviews carried more risk. Sources did not know exactly what they would be asked, even if they had been apprised of the general topic. They might fear that their comments could be misconstrued by journalists or misrepresented to the public, potentially jeopardizing their reputations, careers or even their safety. Sources might also not want the attention that an interview could bring (Palmer, 2013). Having their names included in a photo or video credit would likely attract less attention than being quoted in an article.

Objects appealed to journalists for another reason: many were produced without journalists as their intended audience. People performed for the journalists who interviewed them. As sociologist Erving Goffman wrote, "we tend to conceal from our audience all evidence of 'dirty work'" (1959, p. 44), trying instead to portray ourselves in the best possible light. Fixed objects, however, could not tailor their performances to different audiences. If they were not produced with journalists in mind, more of their "dirty work" might come into view. For this reason, public records were more appealing to journalists than press releases were. Quavering videos on social media sites were more appealing than carefully staged headshots.

Some objects were freely available to journalists, which made them more attractive sources. News organizations that subscribed to wire services had permission to use their content. Journalists also had easy access to articles in their organizations' archives. Some news organizations also subscribed to services like Proquest, which allowed them to search the archives of other news organizations. Government data, such as the U.S. Census Bureau's population statistics, were often available online.

Although asking for permission to use source objects was relatively easy, some news organizations did not bother. One Geofeedia user said she regularly aggregated photos and videos that other people had taken around her community without asking them first. As described in chapter 3, Geofeedia allowed news organizations to search for social media content by location. Users could aggregate photos and videos from given locations by drawing boundaries around them on a map. Geofeedia's interface allowed users to create "feeds" of social media content within the boundaries they drew, and some news organizations posted that content on their own social media accounts. The Geofeedia user in this example argued that, because she was aggregating the social media content online, using other social media services like Storify and Pinterest, it was not necessary to ask for permission. If she wanted to use them in her print newspaper, she said, she would ask for permission.

Legally, using social media content without permission has fallen into a gray area. At issue is whether these uses violate copyright law, which applies to "original works of authorship fixed in any tangible medium of expression," including literature, music, plays, choreography, pictorial works, film, sound recordings, and architecture (17 U.S. Code § 102). News organizations have been allowed to use objects without permission from their authors under what has been called the "fair use doctrine." The doctrine includes four "factors" to consider when determining whether the use of an object is "fair":

> 1. the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
> 2. the nature of the copyrighted work;
> 3. the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
> 4. the effect of the use upon the potential market for or value of the copyrighted work. (17 U.S. Code § 107).

Applying the fair use doctrine to social media has been a challenge. Some journalists have reasoned that social media content is already public, so what's the big deal if they use it? Two news organizations were, however, penalized for lifting photos from Twitter without the photographer's permission. Daniel Morel took the photos in his native Haiti shortly after a massive earthquake there in 2010. He won a $1.2 million judgment against Agence France-Press and Getty Images after they published the photos—and collected licensing fees from other news organizations that used them. While Twitter's terms of service allowed social media content to be retweeted, it barred the use of tweeted material for commercial purposes. A federal jury found that AFP and Getty violated the Copyright Act.

Source Management in Storyful and the Public Insight Network

Journalists created Storyful and American Public Media's Public Insight Network to innovate the process of managing real people. Storyful has focused on securing permission to use objects, while PIN has focused on gaining access to real people themselves.

Storyful

Storyful could expedite the source management process for news organizations that wanted to use what is often called "user generated content" (UGC)—namely, photos and videos produced by real people. It did this by seeking permission from producers on behalf of all of all Storyful clients, most of which were news organizations. When Storyful journalists saw photos and videos that they wanted to make available to clients, they attempted to contact producers through the social media accounts that they used to upload the content. They also looked for other contact information for the producers online. Under Storyful's standard Content Agreement, producers retained the rights to their content, but granted Storyful a "worldwide, non-exclusive, royalty-free, perpetual license to use and distribute" it. The agreement also authorized Storyful to sell advertising on videos. Producers shared a portion of the advertising revenue ("Storyful Content Agreement," n.d.).

Based on my observations of the videos posted to Storyful's dashboard, producers often granted permission. Storyful labeled such videos "cleared." And why not grant permission? The videos were already available for public view online. As one user wrote on a message board to someone who asked for advice on whether he should license his videos to Storyful:

> Heck, I'd be tempted to give it to them just because:
> 1. You weren't going to sell the videos anyway. You're not exactly losing anything.
> 2. I'd want to reward them for actually attempting to get the rights to the videos cleared before running with them. ("Kontos," 2013)

Although Storyful's Content Agreement included the possibility that producers would earn advertising revenue, most videos have made little money from YouTube ads. One report estimated that advertisers paid an average of $6.33 per thousand views (Hamilton, 2013). YouTube's own monetization agreement with creators has given them about half of the ad revenue that their videos generated. Videos that Storyful licensed could have a better chance of going viral, since Storyful itself distributed them to multiple news organizations. Storyful boasted that one video it distributed generated more than 27 million views.

By coordinating permission requests for multiple organizations, and using a standardized agreement that provided incentives for producers to share their content, Storyful made it easier for journalists to incorporate UGC into their news coverage. Having more UGC available could allow journalists to depend less on the usual suspects.

The Public Insight Network

PIN, too, sought to improve the source management process in order to help journalists find sources other than the usual suspects. While Storyful's process was standardized, PIN's was personalized. It helped connect journalists to people, rather than objects. Journalists liked PIN because sources were often highly engaged, trusting journalists with intimate details about their lives. However, getting the permission of sources to add them to the database in the first place could be difficult. Then, once sources were in the database, journalists had to maintain their interest.

As mentioned in chapter 4, many PIN sources who joined the database shared surprisingly personal information with journalists. PIN analysts offered several reasons for why this could be. First, many sources were already part of a news organization's engaged audience; that was why they joined PIN in the first place. Second, the queries often asked open-ended questions and allowed sources to answer in as much detail as they wanted. Many PIN analysts said they also emailed sources individually to thank them when they responded, which surprised people who had not believed that what they wrote would actually be read.

Recruitment challenges. News organizations that used PIN, also known as "PIN partners," most often promoted the database using their existing communications channels. Radio and television stations promoted PIN on the air; newspapers promoted it in print; and all of them, of course, promoted PIN online. Sources often joined the database by answering queries that news organizations created for stories they were pursuing. Visitors to the St. Louis Beacon might answer the query "What makes your neighborhood special?" PBS Newshour viewers might respond to "How are farmers coping with climate change?" *Marketplace* listeners might answer "Do you have faith in Bitcoin?" Once sources answered their first queries, they were in the database, and might receive additional queries by email. They could also look for queries by going to PIN's website or the websites of partner newsrooms.

The more sources who joined PIN, the more robust a resource it could be for journalists. But although the number of sources has continued to increase, journalists have been discouraged by the database's lack of diversity. "For most stories we want to tell, those people aren't in the network" (personal communication, May 15, 2012) one analyst said. Partners gained most of their sources through their existing communications channels, because those were the ones that were easiest to use. "Use whatever is your big megaphone," recommended an American Public Media employee during training sessions for new partners. That meant that people who registered for PIN were likely already part of those organizations' core audiences. Knowing this, some journalists were cynical about who they might turn up by searching the database. They believed it would be people who had particular axes to grind, or causes to promote. "The Henry Goodmans" (personal communication, August 10, 2012), as one journalist put it, invoking the name of a gadfly in her town. Journalists were less interested in real people who actively sought their attention in order to promote an agenda. Journalists preferred real people who were willing, but not too eager, to talk.

Because news audiences were the easiest ones to recruit to PIN, the database had certain demographic gaps. Lower-income sources were underrepresented. They were less likely to have regular access to email, or might not use email at all. That made it difficult for them to participate in PIN, since sources usually registered with an email address. Partners also tended to email queries to sources. Some PIN analysts said they had recruited sources who did not have email addresses. Not wanting to leave them out, the analysts entered the sources' information into the database using a dummy email address and including a phone number. But although those sources were reachable by phone, contacting them for stories required journalists to make an extra effort. Journalists also believed that lower-income sources often had less free time to participate in PIN. One analyst who went door-knocking in a lower-income neighborhood had planned to try to recruit sources—but after having a few conversations with people on their front porches, she gave up. They did not have computers, she said, and it sounded like their free time was filled with family obligations.

Some PIN partners tried to diversify the database by creating queries that targeted specific populations. For instance, APM queried conservatives, asking them to identify people and ideas that shaped their political thinking. The conservative blog Power Line agreed to promote the query on its site. Around 400 people responded, including 100 who were already in PIN. APM created a feature called "Conservative Moments" to display some of the responses on a timeline according to when sources said they had experienced pivotal moments in forming their political outlooks. One source identified her pivotal moment as taking place in 1975, when she realized that she was four months pregnant:

> I called the clinic to set up an appointment. The nurse who answered the phone, she said, "Are you going to get an abortion?" And I was just absolutely shocked. I think my jaw just hit the floor. Up until that moment, I had never considered what legal abortion on demand meant. I had been a Democrat before that - I voted for George McGovern in 1972 - and switched to Republican after that incident. (Kohls, 2012)

While the query generated thoughtful responses from at least 26 conservatives who were featured on the timeline, several others responded sarcastically. One such response was featured on the "Conservative Moments" site:

> I laughed out loud when I read that you biased liberals are making a claim that you want to understand conservatives. It's been written thousands of times by you liberals. Your question should be, "How do conservatives treat the wounds on their hands since they're all dragging their knuckles as they walk?" (McLaughlin, 2012)

Journalists wanted to target certain groups of people for recruitment, but knew that could arouse suspicion. One PIN analyst said journalists in her newsroom wanted more members of the local Ethiopian community in PIN. "You can't call up organizations and say, 'I want Ethiopians. Give me all your people.' If I were to call someone up and say that, it would be a short conversation" (personal communication, January 17, 2013).

Some PIN analysts also tried enlisting the help of people who they called "community connectors." One analyst likened them to "fixers," locals in other countries who helped foreign correspondents arrange interviews and find their way around when they parachuted in to cover stories. Community connectors could be neighborhood activists, pastors or other people who were respected by local residents. "If the person you're asking cares about the topic you're covering and they trust you'll be a good steward of their community's experiences," according to one PIN guide, "there's a good chance they'll share your request with their community" (American Public Media, 2012). That included online communities. One PIN analyst enlisted the help of a blogger who ran the "Food Stamps Cooking Club," which featured cheap, easy recipes. The analyst posted this comment in response to one of the blogger's posts:

> Dear Mother Connie,
> I've been looking around your blog and I love what you do. First of all – I had no idea that succotash was anything more than sufferin' succotash – but I'll definitely be making some ASAP. Second of all – I love that this is a place for lots of different people to share stories with each other about challenges and successes.
> My name is Meg Cramer and I'm part of the Public Insight Network – it's a community of journalists and all kinds of other people who share experiences and personal stories about how everyday people are affected by what's happening in our communities.
> I would love to give you and your readers the opportunity to be part of the news – and I would love to have the opportunity to listen to and share some of your stories… (Cramer, 2012)

Cramer went on in her comment to explain that the public radio program *Marketplace* was working on a story that might benefit from the help of Mother

Connie and her readers. Cramer included a link to the query, which was titled "Have you ever used services in the safety net to get back on your feet?" The query sought responses from people who had used food stamps, Medicaid, and other forms of government assistance. Mother Connie responded enthusiastically, posting the link to the query in a new entry on her blog and urging her readers to participate.

Some partners held community events to try to attract new sources to PIN. Radio station WDET conducted "community listening sessions" in and around Detroit in 2011 and 2012. The sessions were small gatherings in communities near 8 Mile Road, which was understood locally as the dividing line between wealthy and poor neighborhoods in Detroit. Rob St. Mary, WDET's PIN analyst at the time, promoted the sessions by posting flyers and partnering with non-profit groups that he said had "goodwill" in their communities.

> We told the folks when we came there… we're not just showing up to basically sort of cherry-pick stories out of your neighborhood and then disappear. We're not showing up when the bodies are on the sidewalk. We want you to know this is part of a conversation. You can get a hold of us. If there's something going on, we want to continue this conversation. (St. Mary, 2011).

St. Mary said that around 30 people who attended the sessions registered for PIN. St. Mary said the listening sessions provided additional engagement opportunities by giving attendees opportunities to suggest story ideas, and built relationships with the local groups that had helped to organize the meetings.

Some PIN partners tried to increase diversity in the database by recruiting sources in public. One PIN analyst was known for setting up a table at street fairs and collecting people's business cards in a beer pitcher. Another analyst attended networking events for minorities. Still another walked door to door in mobile home parks. One analyst said she looked for any public events where people were likely to gather and socialize. Her strategy was to approach people who were clustered in small groups—she believed it was less intimidating. But she said it was hard work.

> I get really nervous every time I do this, and I have to kind of give myself a little pep talk, because often people say no. And if maybe the first five people say no when I approach them, it gets very discouraging. So I kind have to go off and talk myself back into it, and go back out there. (personal communication, March 26, 2013)

The pep talks and other work involved with jobs that required face-to-face encounters with strangers has been described as "emotional labor" (Hochschild, 1983). Salespeople and service workers regularly perform emotional labor, because their jobs depend on them to maintain a polite demeanor even in the face of rudeness or rejection. The disparity between the emotions that those workers are expected to express and the ones they actually feel can lead to stress, such as the discouragement that the PIN analyst said she felt at being rejected by potential sources.

PIN analysts would sometimes cope with the emotional labor of source recruitment by sharing their experiences in the form of war stories. They described situations where they felt out of place or were met with skepticism by potential sources. One journalist recalled attending a county fair, "where my booth was a dusty table next to the open cowboy bar named 'Whoa Nelly.' I'm not kidding" (personal communication, May 15, 2012). One analyst recalled the awkwardness she felt at an inner-city gospel festival when she tried to raffle off a prize that her news organization had provided as an incentive for sources to join PIN. The prize was a milk frother, a gadget for making lattes and other fancy coffee drinks. "I had to spend as much time explaining what a milk frother was as what PIN was" (personal communication, June 5, 2013), the analyst said. The prize was an example of how out of touch news organizations could be with the communities that they purportedly wanted to serve. The milk frother went unclaimed.

Although face-to-face encounters could be uncomfortable and require hours of time in exchange for just a handful of sources, they could also be effective. PIN analysts said they could learn a lot about new sources in those face-to-face encounters. They would take notes on what sources said during their conversations, such as whether they said what they did for a living, or what they liked to do in their free time. Analysts would then add those notes to the sources' profiles to help journalists find them. Analysts also said they believed sources who signed up in person tended to feel more invested in PIN. The face-to-face interaction left a stronger impression than a website or email could.

Some analysts were uncomfortable with the idea of recruiting sources. It was one thing to reach out to sources for a particular story, but recruiting sources on a more general basis felt to some journalists like outreach, or even worse: marketing. Journalists found that asking people to join PIN required an argument as to *why* they should join. That meant journalists had to promote themselves and their work, and make the case that joining PIN would benefit sources and their communities. PIN's own website said that journalists who used it were "strengthening the communities they serve" (Public Insight Network, n.d.). Some journalists felt that making the pitch for PIN made them more like activists, and less like the neutral, detached reporters they wanted to be. "I get little bugs in my stomach when we talk about community building," one PIN analyst said. "That's something our promotion colleagues should do, not me" (personal communication, May 15, 2012).

Their promotion colleagues, however, did not use PIN. Partners were contractually barred from using PIN for marketing or other non-journalistic purposes. Journalists were accustomed to, if not always comfortable with, other kinds of self-promotion. News organizations increasingly expected them to tweet links to their stories and "brand" themselves with consistent and visible online profiles (McAdams, 2009). And as anyone who has listened to a pledge drive knows, public media journalists regularly promote their organizations. As Nicco Mele and John Wihbey (2013) noted, public media organizations have managed to do so without compromising their audience's trust:

> Tune into any public radio station during pledge week and "trusted" reporters, hosts, and producers cross the traditional "church-state" editorial line and ask directly for money. Why are more journalists not doing the same — and creating more kinds of editorial products to sell — while cultivating a paying fan base?

PIN did not ask sources for money, but it did ask them for other kinds of currency: their personal information, and their time. Some PIN sources even saw them as exchangeable currencies. One PIN analyst who worked in public media said sources had told her they registered because they could not afford to make a donation (personal communication, March 5, 2013).

Attempts to recruit sources could go wrong. The *Charlotte Observer* once planned to recruit sources using an email list that the newspaper had acquired through a public records request. People had signed up for the list to receive updates about local government issues. It "occurred to us that many people who signed up were clearly engaged with their communities, given that they were interested in receiving government e-mails," (Thames, 2011) wrote the newspaper's executive editor. He thought the same types of people would be interested in PIN. But the city of Charlotte had already expressed concerns that the 23,000 email addresses would become targets for spam. City leaders were lobbying the state legislature to restrict access to the email list. When the *Observer* filed its public records request, the city emailed people on the list to let them know.

The *Observer* faced quite a backlash. One commenter wrote on the newspaper's blog that public records laws were supposed to help news organizations "gain access to documents for journalism, not for marketing." Several other commenters believed the *Observer* wanted the email list to recruit subscribers rather than sources. One commenter found it revealing that the *Observer* employee who filed the public records request had the words "audience development" in his title. In response to the complaints, Thames announced that the *Observer* would examine the email lists only for possible stories about the list itself, and not to recruit PIN sources.

I tried playing the role of PIN recruiter myself, on behalf of a partner newsroom. I was very bad at it. I found that PIN was a difficult concept to explain to people who had never heard of it before: I was recruiting news sources, but I was not a working journalist; I could not promise that sources would hear from journalists, but they might. Adding to the challenge was the fact that the PIN partner I was representing was not well known. It was a relatively new, online-only news organization with a niche following. So in addition to explaining what PIN was, I also had to explain what the news organization was. Potential sources would thus have to trust three unfamiliar entities: PIN, the news organization, and me. It was a lot to ask.

Knowing that PIN partners had success recruiting the "Henry Goodmans," I tried recruiting sources at meetings where I thought community-minded people would be. I attended one local government meeting where board members and a couple local residents listened politely to my explanation of what PIN was. A couple of them gave me their email addresses, but neither registered for PIN. I also pitched PIN at the meeting of a building co-op board, where I was friends with one of the members. No one there signed up, either. I had better luck when I attended the meeting of a local community gardening group. It was a more casual atmosphere, which allowed me to make a more conversational pitch. One person I met there signed up; a year later, she had not answered any queries.

Finally, I emailed colleagues, friends, and acquaintances to ask them to register. I also posted messages on my Facebook and Twitter accounts. A few people signed up in response to those requests. One source even responded to a couple of queries. The first one he found online the same day he registered: "What will you do the morning after Election Day?" Eight days later, a PIN newsroom emailed him another query, which asked about public swimming pools in his area. He responded to that one too, but that would be his last. PIN partners emailed five other queries to him over the next three months; he did not respond to any of them.

Participation challenges. Keeping sources active was another challenge for PIN. Some, like my acquaintance, might answer a few queries at first but then disappear. If sources registered, but then found no incentive to keep participating, newsrooms could lose them for good. When PIN began, journalists were concerned about bothering sources by contacting them too often. They promised sources that they would receive no more than one email per month. But a survey of PIN sources found that none felt they had been queried too often. Receiving too few queries, or too few that were relevant to them, were the top reasons that sources gave for losing interest in PIN.

In some cases, the problem may not have been that sources received too few queries, but rather too few that were relevant to them. The woman whom I recruited from the gardening group, for example, received two queries from PIN soon after she registered. One query, which was sent not long after the 2012 school shooting in Newtown, Connecticut, asked sources how they were talking to their kids about it. Unfortunately, the woman from the gardening group had no children—and had indicated as such when she registered for PIN—so the query was a mismatch.

Of course, some sources could receive irrelevant queries because journalists could not have known they were irrelevant. Many sources disclosed only the minimum amount of information about themselves that was necessary to register: a first and last name, email address, and ZIP code. In the 100,000+ member Global PIN, the part of the database that was accessible to all newsrooms, less than half of sources had disclosed their birth years. Slightly over a third disclosed their genders; fewer still identified their ethnicities, incomes, political affiliations, education levels, or religions.

Because PIN suffered from a lack of diversity, one PIN newsroom I observed tried particularly hard to send queries to minority sources. The analyst in that newsroom said she "oversampled" minorities when selected which sources would receive particular queries. She might email a query on religious traditions, for example, to only a fraction of Christian sources, while sending it to every source who identified as belonging to some other faith. The analyst said she also wrote a personalized welcome email to sources who were minorities. All other sources received a standard welcome email.

PIN's administrators tried to encourage partners to keep sources interested by staying in touch with them after they had answered queries. PIN analysts were supposed to write personalized thank-you notes to all sources who responded, especially if journalists used their responses in a demonstrable way in their resulting stories. If sources were not quoted directly, they could still have what was called "PINfluence"—a role in shaping the story. PINfluence could take the form of suggesting a particular story angle, for instance. Letting sources know about their PINfluence was intended to show them how their contributions shaped news coverage, and to encourage them to keep participating. Analysts were expected to complete PINfluence reports following each story that journalists in their newsrooms did with the assistance of PIN. The reports were aimed at communicating to newsrooms and the public PIN's successes, and let journalists know which sources had been particularly useful.

Most analysts I interviewed did not complete PINfluence forms. It was a lot to manage, they said, in addition to recruiting sources, working with journalists on queries, writing thank-you notes, and responding to other communications from the persistent "Henry Goodmans" in their source pools. "People are going to expect more of you," an APM employee told journalists during a training session on PIN. "They're going to want you to do something about their concerns."

While PIN helped news organizations engage with their existing audiences, recruiting a diverse source pool was more difficult. Engaging potential sources who had no prior relationship with PIN newsrooms required resources that many of those newsrooms did not have.

Source Relations

Could news organizations develop source relations departments like the media relations departments that the usual suspects often have? PIN appears to provide an answer: yes, but it takes a lot of work.

Could PIN adopt a more centralized, Storyful-type model to help news organizations connect with real people more efficiently? Perhaps. PIN has tried a few experiments in which small newsrooms enlisted the help of APM employees to help them write queries and sort through source responses. As delicate a process as source management can be, however, some sources might not take kindly to their management being outsourced.

Even journalists who said they tried to be sensitive to the concerns of real people found that some sources still felt burned. Frank, one of the beat journalists I interviewed, said he once wrote about a street performer with an interesting gimmick: he played various national anthems outside a local tourist attraction that tended to attract a lot of international visitors. The tourists were often tickled to hear the songs of their home countries. Frank said he thought he had been clear with the musician about what he should expect from the final article:

> You know, I literally went down, this is what it'll be. This is what you told me, this is what I'm writing, this is what the article's about. I went step by step. I mean, I didn't let him read it. I didn't read it to him, but I basically went blow by blow, you know, about this, you told me that, I'm gonna go into this, that. The guy went nuts afterwards. (personal communication, September 9, 2013)

The performer was upset that Frank downplayed his "serious musician side." Frank said the performer's serious musician side was not newsworthy; his national anthem playing was. Frank said he did not know what else he could have done to manage his source better. Perhaps some sources are just unmanageable. But it is difficult to say how hard journalists should try to manage them before drawing that conclusion.

CHAPTER 7: CONCLUSION

"How do changes in communication technology influence what we can concretely create and apprehend?" (Carey, 2009, p. 24)

This dissertation examined how journalists have attempted to use technology to improve their methods for finding sources. In this concluding chapter, I will highlight the findings of my research. I will then describe key differences between the two source-finding tools that I studied in the most depth: the Public Insight Network and Storyful. Finally, I will examine challenges that remain for journalists, even as technologies have afforded them opportunities to find once-unfindable sources.

Chapter Highlights

Journalists have sought to reduce their reliance on a group they often called the usual suspects: authoritative, powerful sources including politicians, experts, public relations professionals, and other people who made news often. Sources who were not among the usual suspects were part of another group: real people. The usual suspects could help journalists report news efficiently by holding newsworthy events, being available for interviews, and supplying "information subsidies" (Gandy, 1982). However, journalists resisted relying on them too heavily. When I began my research, I believed that wariness of the usual suspects and improvements in technology might lead journalists to seek more sources among real people. I found this to be true, but only to a limited extent. Although journalists wanted alternatives to the usual suspects, there were other options available besides real people.

I also found that the usual suspects might not have as dominating an influence over news as was once thought. Chapter 2 was dedicated to my interviews with beat journalists, and used a model borrowed from the business world, the supply chain, to describe how information flowed from sources to journalists. The supply chain model suggested that power dynamics between sources and journalists could vary depending on factors such as the availability of substitutes. Results of the interviews also suggested that there were other types of sources that had not often been identified by journalists or journalism researchers. Those sources included journalists themselves, and objects. Broadening the definition of the word "source" contributed to my finding that the usual suspects were not as dominant in setting the news agenda as prior studies have found. My findings may have also reflected changing sourcing practices over time, and differences in reporting practices between local and national reporters.

Regardless of how much influence the usual suspects have had, journalists have remained interested in finding alternative sources. The strongest indicators of that interest have been the development of two source-finding tools that were created by journalists: the Public Insight Network and Storyful. PIN is a database of real people who have been recruited to share their knowledge with journalists. Storyful is a team of journalists who find and verify videos and photos taken at the scenes of breaking news events. Journalists have used other source-finding technologies, as well, several of which were detailed in chapter 3. Some of those technologies were created by public relations professionals to match publicity-seeking people to journalists. Other technologies were designed for journalists and others who were interested in searching social media data by location. Finally, I described some social media tools, such as Twitter and Facebook, that journalists used in the reporting process.

In chapters 4-6, I described how journalists were using these tools to find, evaluate, and manage sources. In chapter 4, I found that journalists often did not use digital search tools to find new people or story ideas. Rather, they used those tools to keep tabs on or research people who were already on their radar. They followed the usual suspects and other journalists on social media. They researched real people who had popped up in the news to find contact information but also to build profiles of them. They also used digital search tools to find people in certain locations where breaking news was happening. The Public Insight Network was an exception to this rule. It was designed to help journalists discover sources, rather than research ones they had already identified.

Chapter 5 focused on the source evaluation process. I found that journalists were disinclined to use real people as sources because their credibility could be difficult to verify. However, evaluating source objects, including those that were produced by real people, was easier. Some news organizations outsourced the verification process to Storyful, which specialized in the data-driven evaluation of videos and other social media content. Storyful journalists examined specific characteristics of source objects—such as who produced them, where they were produced, and when—in order to assess their veracity. Despite the efforts of

Storyful and other journalists to develop techniques for evaluating source objects, however, many news organizations fell victim to hoaxes. Some journalists suggested that news audiences needed to take greater responsibility for verifying information themselves.

In chapter 6, I explained the process of source management in the digital age. Source management describes the processes that journalists use to maintain cordial and fruitful relationships with sources. The usual suspects often required little management, because they were motivated to cooperate with journalists. They sought the public attention that journalists could provide. Journalists could also be motivated sources, because they, too, sought public attention—either for themselves or for their work. Managing real people, however, could be more difficult. They did not necessarily seek media attention—and in fact, journalists preferred real people who did not. Journalists who excelled at source management understood what motivated real people to be sources. Source management was a particular challenge for PIN. The database's usefulness depended on the number and diversity of its sources. The process of recruiting took time, however, particularly when sources were not part of existing news audiences. Some journalists also felt that source recruitment should not be their responsibility.

PIN and Storyful: a Comparison

The processes of finding, verifying and managing sources varied according to which technologies journalists used, and how they used them. I want to highlight in particular some differences between PIN and Storyful that influenced their roles in news gathering.

Proactive versus Reactive

PIN's administrators wanted the database to help journalists take a proactive approach to news gathering. Journalists were supposed to ask broad questions of PIN sources that could lead to unexpected story ideas. As discussed in chapter 2, real people rarely instigate news stories. Most story ideas have come from the usual suspects, journalists, or objects created by the usual suspects or journalists. Journalists also had the option of using PIN as a "casting couch" for particular sources—but ultimately, the database was intended to give real people a greater role in story discovery. Storyful, by contrast, has not been aimed at discovering new stories. Its work has been reactive, following the collective news agenda set by clients and other large news organizations. Storyful journalists have not asked questions that could take stories in new directions. They, rather, asked questions related to verification—trying to determine whether the social media objects they found truly represented what their uploaders said they did.

Real People versus Objects

PIN tried to connect journalists with real people, while Storyful focused on objects. Using PIN required substantial trust on the part of journalists and sources.

Journalists had to trust that sources were who they said they were, and knew what they said they knew, because verifying that information could be difficult. Sources had to trust that journalists would treat with respect and sensitivity the information that they shared. Storyful, meanwhile, targeted objects that had been created by real people. Journalists sought videos that depicted newsworthy and visually stunning events, such as protests, armed conflicts, or severe weather. The focus on objects made Storyful's source management process much easier than that of PIN. Storyful had to ask for permission to use an object that was already publicly accessible, while PIN had to ask for permission to access information that sources had not yet shared. Storyful's focus on objects also made its validation process different. Journalists evaluated sources based on the consistency of their data. PIN sources more often had to be taken at their word.

Aggregation versus Precision

PIN's strength depended on its ability to aggregate as many sources as possible into a single database. PIN was intended to be a place where journalists could look for trends, get general impressions, and test hunches. Its creators preferred that it not be used to find a specific "real person to put on top of the story," as PIN co-founder Andrew Haeg put it. The goal was instead to take what sociologist Herbert Gans would call a "multiperspectival" approach to news gathering. Multiperspectivism called for gathering a variety of viewpoints in order to create well-rounded portrayals of public issues, stories that were more complicated than "he said, she said" reporting. Storyful's approach was, by contrast, one of precision. It, too, benefited from having a large group of potential sources. Its journalists searched social media content across multiple platforms, including YouTube, Twitter, Facebook, and Vkontakte. But the goal of searching so many platforms was not one of aggregation, but rather precision. Storyful journalists wanted to find the best examples of social media content that could illustrate the stories that journalists were writing.

Local versus National/International

Most PIN partners were local news organizations. Considering the importance of source recruitment to PIN, local news organizations were the best fit. Recruiting sources was easiest when sources felt like they had a relationship with their news organizations, and that participating in PIN could strengthen their local communities. PIN's appeal to local news organizations may also be explained by the fact that it began at one: Minnesota Public Radio. Storyful, meanwhile, was more focused on international and national news. Most of Storyful's clients were international and national news organizations. And, like PIN, Storyful's origins likely played a strong role in its geographical priorities. CEO Mark Little had spent part of his journalism career as a foreign correspondent, and believed that the videos produced by people who were in the middle of breaking news events could be more compelling than reports from journalists who were confined to their hotels. Little created Storyful to bring news audiences "closer to the story." He wanted news audiences to see things that distance would otherwise prevent them from seeing.

Public versus Private

PIN and Storyful operated according to different business models. To call PIN "public" may be a bit misleading, because its funding has come from a variety of sources, public as well as private. It has received subscription fees from newsrooms that used the database. It has received grants from government-supported agencies and private foundations. PIN is part of American Public Media, whose 2013 financial statements showed that roughly eight percent of its revenues came from government agencies. About 23 percent of its revenues came from "the public" in the form of donations from individuals. PIN's creation and operation has, however, been rooted in the environment of public media. It was created at a public media organization, most of its users have been public media organizations, and its administrators have not expected it to be financially self-sustaining. Storyful, on the other hand, has been privately funded. Little and other investors raised about €3.5 million (almost $5 million) to launch the company in 2010. News Corp bought it for €18 million in 2013. Storyful's private orientation explained its entry into the not-so news-related venture of licensing viral social media content in 2013. Licensing videos of animals and babies doing funny things helped Storyful subsidize its more serious investigations into hard news content.

System 2 versus System 1

PIN was intended to be used as part of a System 2 approach to news. As discussed in chapter 4, psychologist Daniel Kahneman created two categories to describe the ways people think, which affect how they make decisions. System 2 governs thinking that is effortful and slow. Its counterpart, System 1, is instinctual and fast. By involving real people in the story instigation process, PIN was aimed at being an effortful activity that ran counter to the instincts of many journalists. The System 2 approach to news gathering had potential to yield new story ideas, but the amount of time it required, and the challenge it posed to conventional reporting, turned off some journalists. Storyful, by contrast, allowed newsrooms to outsource System 2 activities to specialists. Storyful journalists handled the effortful processes of finding and verifying social media content. By outsourcing the verification process, Storyful's clients could keep a largely System 1 approach to news coverage. Incorporating user-generated content (UGC), such as eyewitness videos, into news reporting was not a new idea. Storyful merely helped news organizations access and verify those videos more quickly and easily than they could before.

Ritual versus Transmission

I began this chapter with a quote from media scholar James Carey's famous essay "A Cultural Approach to Communication." The specific quote was related to the role of technology in communication, a topic I have explored in this dissertation.

But the central idea of his essay was that communication could be described both as a "transmission," a conveyance of information from one point to another, and as a "ritual." The ritual view, which Carey argued did not get as much attention as it deserved, was "directed not toward the extension of messages in space but toward the maintenance of society in time; not the act of imparting information but the representation of shared beliefs" (2009, p. 15). The transmission model involved discrete interactions with beginning and end points. It depicted the unidirectional movement of data across distance. It represented a human desire to control the "speed and effect of messages" (p. 12). The ritual view, by contrast, was an ongoing process. It had no beginning or end. It did not travel across great distances, but rather reinforced ties that already existed within communities. The ritual view of communication represented a human desire for "sharing" and "association" (p. 15).

This dual definition of communication can serve as another way to describe the differences between PIN and Storyful. PIN embraced a ritual view of communication. It was ongoing. News gathering in PIN was not intended to be unidirectional, beginning with sources and ending with audiences. It was intended to be a "virtuous cycle," in which sources and audiences were the same. Journalists were supposed to seek knowledge from the source-audience group, synthesize their responses, share the results, and then seek more knowledge. PIN was local and aimed at building communities, even though the notion of community building put "little bugs" in the stomachs of some journalists who participated in it.

Storyful more closely followed the transmission view of communication. Storyful's process had clear beginning and end points. It began when journalists identified newsworthy social media content. Then journalists validated it, and transmitted it to news clients. Sources were often not the same as audiences, because sources could be in remote locations. Storyful moved data from those remote locations across great distances. Journalists themselves did not travel, but their actions transported videos from newsworthy places to clients around the world. And Storyful valued speed, not association. It sought user-generated content that related to what was happening in the news at that moment. It was not trying to build lasting communities.

This comparison of PIN and Storyful is not intended to portray one as superior to the other. It is merely to point out that, while both tools have sought to expand sourcing options for journalists, they have done so in different ways. Those differences were important because the effectiveness of these tools has depended on the extent to which journalists understood their intended uses, and their practical capabilities.

Finding the Unfindables

One thing that PIN and Storyful have in common is that, although they both expanded opportunities for journalists to find new sources, certain people still fell through what sociologist Gaye Tuchman has described as the "news net" (1978, p. 23). Some sources have long been disadvantaged in their abilities to attract media attention. But PIN and Storyful had their own ways of favoring certain types of sources over others. I will first describe who has historically been "unfindable" in news, and then discuss unfindability as it relates to digital sourcing tools.

Historical Unfindables

Some types of people have long struggled to attract the attention of news organizations. Nearly 40 years ago, political scientist Edie Goldenberg examined some of these people. She studied "resource-poor groups," including organizations that advocated for seniors and welfare reform, to analyze how they attempted to attract attention to their causes. Her conclusion was an unpleasant one:

> The groups most in need of press attention in order to be heard forcefully in the political arena are those least able to command attention and those least able to use effectively what few resources they do control in seeking and gaining press access. (1975, p. 148)

This largely remains true today. News stories rarely address the concerns of resource-poor groups. And it is not just a problem with groups. Certain individuals are also regularly unfindable to journalists. Factors like gender, race, economic status, and geography can influence the choices journalists make about which subjects to cover and which sources to use.

Women have been less likely than men to be news sources. Male sources have outnumbered female sources in news stories by a ratio of roughly 3 to 1 (Everbach, 2005; Liebler & Smith, 1997; Shepard, 2010). An earlier study found a larger margin, of 6 to 1 (Whitney, Fritzler, Jones, Mazzarella & Rakow, 1989). Those studies were based in the U.S., but other countries have also had a gender imbalance among news sources (Global Media Monitoring Project, 2010). Female sources have also tended to be depicted as less powerful than male sources. Men have been more likely to be portrayed as experts, especially in international stories and other hard news categories (Hoynes & Croteau, 1991). Women were less likely to be identified as members of professions, and more likely to be identified by their family status and age (Global Media Monitoring Project, 2010). Women have also been more likely to be depicted as crime victims or of low socio-economic status (Freedom Forum, 1999), and their quotes have been shorter (Zoch & Turk, 1998).

Sources have also been disproportionately white. When minorities have appeared in news stories, they have been more likely to be portrayed negatively (Entman, 1992; Martindale, 1990). One study found that blacks and Latinos were often portrayed as "lawbreakers" while whites were "law defenders." Black lawbreakers were overrepresented on television compared to actual crime rates, while whites and Latinos were underrepresented (Dixon & Linz, 2000). The prevalence of black lawbreakers on television news has led viewers to assume that criminals were black, even when journalists did not identify their race (Dixon, 2007). An analysis of newspaper photos found that black subjects were overrepresented on sports pages but underrepresented in other sections, while Latinos and Asians were underrepresented throughout (DeLouth, Pirson, Hitchcock, & Rienzi, 1995).

Other groups that have been underrepresented in media include the poor, the young, and the old. The "deserving" poor, such as those who are older or who are working, have rarely been depicted (Cook & Barrett, 1992; Gilens, 1995). Images in news stories about the poor have also focused on people who lived in urban, rather than rural, areas (Clawson & Trice, 2000). Studies of children and seniors featured in news articles found that both age groups were underrepresented relative to their populations (Broussard, Blackmon, & Blackwell, 1980; Rodgers, Thorson, & Antecol, 2000).

Researchers have also found that news organizations favored certain geographic areas. The northeastern and Pacific coast states have tended to be overrepresented, and the Midwest undercovered, relative to their populations (Whitney, Fritzler, Jones, Mazzarella & Rakow, 1989). Another study found that about half of network television news coverage originated in Washington D.C., and that coverage of California and New York was also disproportionately heavy (Dominick, 1977). NPR has also covered Washington D.C. heavily, although many of those stories were national or international in nature. Among states, Alaska, New Hampshire and Louisiana were the most over-covered relative to their populations (Schumacher-Matos, 2013). The resources required to send television crews outside their usual coverage areas could limit their travel (Epstein, 1973). The geographic distance between journalists and the stories they covered could also affect the sources they used. Journalists often used fewer and less diverse sources when they reported from unfamiliar places (Berkowitz & Beach, 1993; Martin, 1988).

The news beat structure has also favored coverage of particular topics while excluding others. Beats are often based on topic areas, such as crime or education, or geographic regions, or both. Journalists assigned to specific beats have been expected to produce stories on a regular basis, even if they perceived little to be happening (Strentz, 1989). The emergence of environmental beats at several news organizations in the 1980s was seen as a public relations victory for advocacy groups in that area (McNair, 1998). Meanwhile, topics that rarely had their own beats, such as religion, were often ignored (Fishman, 1980; Soloski, 1989).

Digital Unfindables

PIN and Storyful have both aimed to find some people who had once been unfindable. However, every search method has played favorites. In the case of digital sourcing tools, potential sources who have continued to fall through the "news net" include those who lack Internet access or know-how, and those who do not participate in the "social" web.

Digital sourcing tools including PIN and Storyful favor sources who are online. As of May 2013, about 15 percent of U.S. adults were not online. Another nine percent of U.S. adults used the Internet, but not at home (Zickuhr, 2013). About a third of U.S. adults who did not use the Internet said they did not believe it was relevant to them. Another third cited usability problems, including a lack of know-how or a physical disability. Nineteen percent said it was too expensive for them to get online. Older adults were much less likely to be online than younger adults. Internet users who did not have access at home were much more likely to be black or Hispanic, be less educated, and have lower incomes.

Many people use social media, but they do not necessarily socialize in a way that would help news organizations find them. Storyful looks especially for video content. Other source-finding tools look for people who share their locations. PIN does not search social media at all. It, rather, is most likely to find people who are engaged with online news sites and thus might be more likely to want to be news sources. Digital sourcing tools are also ill-suited for finding people who are concerned about their privacy. As discussed in chapter 4, being too findable has jeopardized some people's reputations and personal security. Some people also have a specific distrust of news organizations and journalists. One survey found that 71 percent of people believed news organizations try to cover up mistakes rather than admit to them. Sixty-seven percent believed that news was often inaccurate, and 58 percent believed that media were politically biased (Pew Research Center Project for Excellence in Journalism, 2011).

Implications for Democracy

The ability of journalism to serve democracy depends on the efforts of journalists to find the unfindables. If journalism's "first loyalty is to its citizens" (Kovach & Rosenstiel, 2001), I would like to make an argument for strategic thinking in order to determine how news organizations can serve them. I would also like to argue that journalists must understand the knowledge and needs of citizens—all citizens—not just sources, and not just audiences. In order to understand them, journalists must interact with them directly rather than rely on information gathered from source objects.

Journalism can improve its service to citizens through the development of strategies—sourcing strategies, and other kinds of strategies. Tools, including PIN, Storyful, and other sourcing technologies, can be helpful for executing strategies. But tools themselves are not strategies. They should be used only insofar as they can help journalists in their work.

And how do we know if these tools can help journalists in their work? This is a similar question to one posed by management scholar Peter Drucker in an essay he wrote about knowledge workers. Drucker is best known for his work on the manufacturing economy of the 20th century. But on the eve of the 21st century, he wrote that knowledge workers were altogether different from manufacturing workers. In manufacturing, Drucker wrote, the key question was "how should the work be done?" But for knowledge workers, the key question was "what is the task?" (1999, p. 84). It was only after the task was defined that knowledge workers could determine how to do their work, and how to evaluate the quality of it when they were done.

Journalists are knowledge workers. They, too, must define "what is the task?" and determine how they can evaluate whether they have accomplished it. This can be done any number of ways. In my introduction to this dissertation, I referred to some of the many goals that journalists and scholars have set in order to best serve democracy. Those goals are in journalism textbooks, academic treatises, ethics codes, and news organization mission statements. They are numerous and generally laudable—but they are rarely brought down to earth. Journalists know that their work should help democracy, and often presume that it does. But often, they do not know. And they do not think strategically about how their work could best serve democracy, or about how they could go about evaluating the extent to which it does.

If journalists are to meet their goals, however they define them, they should establish clear, deliberate paths for achieving them. It could be with the help of sourcing tools like PIN or Storyful, or it could be some other way. By setting goals and means for achieving them, journalists can do more of the work they want to do—and better demonstrate the value of their work to their audiences and sources.

One way that journalists can improve relationships with audiences and sources is by making direct interactions with them a priority. Deadline-driven journalism, however, makes such interactions difficult. Time constraints have led journalists to gather information from source objects rather than people. Using objects can save time, and often requires less source management. Objects also allow journalists to gather information about a broader range of people than ever before, because the increasing availability of data has made more people increasingly findable.

But while journalists may be able to write about a broader range of people, that does not mean that news is representing a broader range of perspectives. Objects can help journalists learn *about* people, but they are of limited use for *understanding* people. That means more people than ever may become news subjects. But news subjects may never get the opportunity to be news sources. While objects can be useful sources, their availability should not preclude efforts by journalists to involve more real people in the news gathering process through conversations with them.

An example from social media can offer a useful parallel. In one newsroom I observed, a journalist mentioned that he had just spoken on the phone with an old college friend. They were friends on Facebook, but the journalist said it was only after speaking to his friend on the phone that he realized how much he missed her, and how much had happened since they last spoke. His friend had moved far away, gotten married, and become pregnant with her first child. The journalist had known all of this. But the significance of those events failed to sink in until he had talked to his friend personally. The journalist concluded that Facebook did not really help him stay in touch with his friends. "You think you're staying in touch, but you actually miss a lot," he said.

His example was a personal one, not a news-related one. But it illustrated the potential shortcomings of communications that resemble data gathering more than conversation. It is not a problem unique to journalism. We are all data gatherers. We are all faced with time constraints that limit our conversations with people, and we may substitute data gathering for more substantive interactions. The challenges that journalists face with source management, then, are symptomatic of challenges that all of us face with managing relationships in our professional and personal lives.

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APPENDIX A: BEAT JOURNALIST INTERVIEW METHODOLOGY

I chose the 20 beat journalists I interviewed based on whose bylines appeared in local news sections of newspapers located in a major U.S. city. Over a period of two weeks, I looked for single-bylined stories in those newspapers and checked each one to see whether the journalists who wrote those stories had written at least four others within the last month. I emailed journalists who met those requirements to request interviews. About one-fourth of the journalists I contacted agreed to be interviewed.

The journalists I interviewed had varying levels of experience. They ranged in age from 25 to 54. Some of them went to journalism school, while others did not. Few journalists had spent more than a couple years doing other kinds of work, so their years of experience in journalism correlated strongly with age. The youngest reporter in the sample, the 25-year-old, was also the least experienced; he had been a journalist for four years. The oldest reporter, the 54-year-old, had the most experience: 30 years.

I decided to focus my research on local reporters for several reasons. First, I wanted to conduct my interviews in person whenever possible. It is easier to establish a rapport between interviewer and subject in person. I also wanted to be able to review the text of articles together with the journalist, which was easier in person. I believed that conducting in-person interviews would be more difficult with national or international journalists, since they were more likely to be spread out among many locations. (Despite these preferences, I actually still had to conduct five interviews with journalists over the phone, due to scheduling conflicts.) Another reason that I wanted to focus my research on local journalists was that there were more of them. Most U.S. newspapers target local, not national, audiences. *USA Today* and the *Wall Street Journal* are notable exceptions to this. Other larger newspapers, like *The New York Times*, *Los Angeles Times* and *Washington Post*, have foreign correspondents and reporters in multiple bureaus around the U.S. Still, they dedicate significant resources to local news reporting.

Limiting the sample to local reporters, however, may have biased my results. It could be that local journalists rely less heavily on the usual suspects than national or international reporters do. As members of the communities in which they work, local journalists may be more likely to stumble upon a wider variety of sources as they go about their lives. National and international journalists may be less likely to stumble upon sources and also more likely to focus their attention on political stories, which are often dominated by the usual suspects. On the other hand, national and international reporters may have a larger pool of potential sources available to them. They may be the only, or one of just a few, journalists covering their geographic areas. They also tend to be less closely supervised by their editors than local reporters are. Thus, it is possible that a larger pool of potential sources, in addition to more freedom to choose their own sources, would make national and international journalists less dependent on the usual suspects. Future research could clarify whether sourcing practices vary according to whether journalists are local, national, or international.

Future studies could also investigate whether sourcing practices vary by beat. Reich (2009) found differences in sourcing practices depending on whether journalists wrote for the front sections of their newspapers (which tended to be about politics), inner news sections (which were often about domestic affairs), or business sections. Journalists in my sample worked on a variety of beats. I decided to include various beats partly to ensure that I could get a large enough sample, and partly because beats were not always well defined. Some journalists identified with particular beats but also worked on assignments that were unrelated to those beats. Although my sample was too small to draw conclusions about particular beats, I suspect there are differences among them. Journalists who covered courts, for example, seemed to be more reliant than other reporters on documents. They used other types of sources as well—such as people they interviewed, or their own personal accounts of court proceedings—but they often used official documents, such as legal complaints and depositions.

Another limitation of my sample was that it included journalists from four different newspapers. Although I could have focused on only one newspaper, it would have taken longer to find 20 willing journalists who wrote frequently enough to meet my requirements. It is possible, however, that sourcing practices were influenced by the ways different organizations operated. Journalists at some newspapers may have worked with less supervision, which would allow them greater autonomy in choosing sources. Or perhaps differences in newspaper reputations could influence which sources made themselves available to journalists. Journalists who work at a newspaper that is perceived as being right-leaning, for example, may find it harder to use sources who identify themselves as leaning to the left, and vice versa.

Because the sample was small, my data on story instigation, numbers of sources, and source word counts could have been influenced by one or two journalists whose reporting styles were markedly different from the others. In the case of story instigation, I found no such exceptions. No journalist in the sample wrote stories based on only one type of instigator. The types of instigators each journalist used are detailed in the figure below.

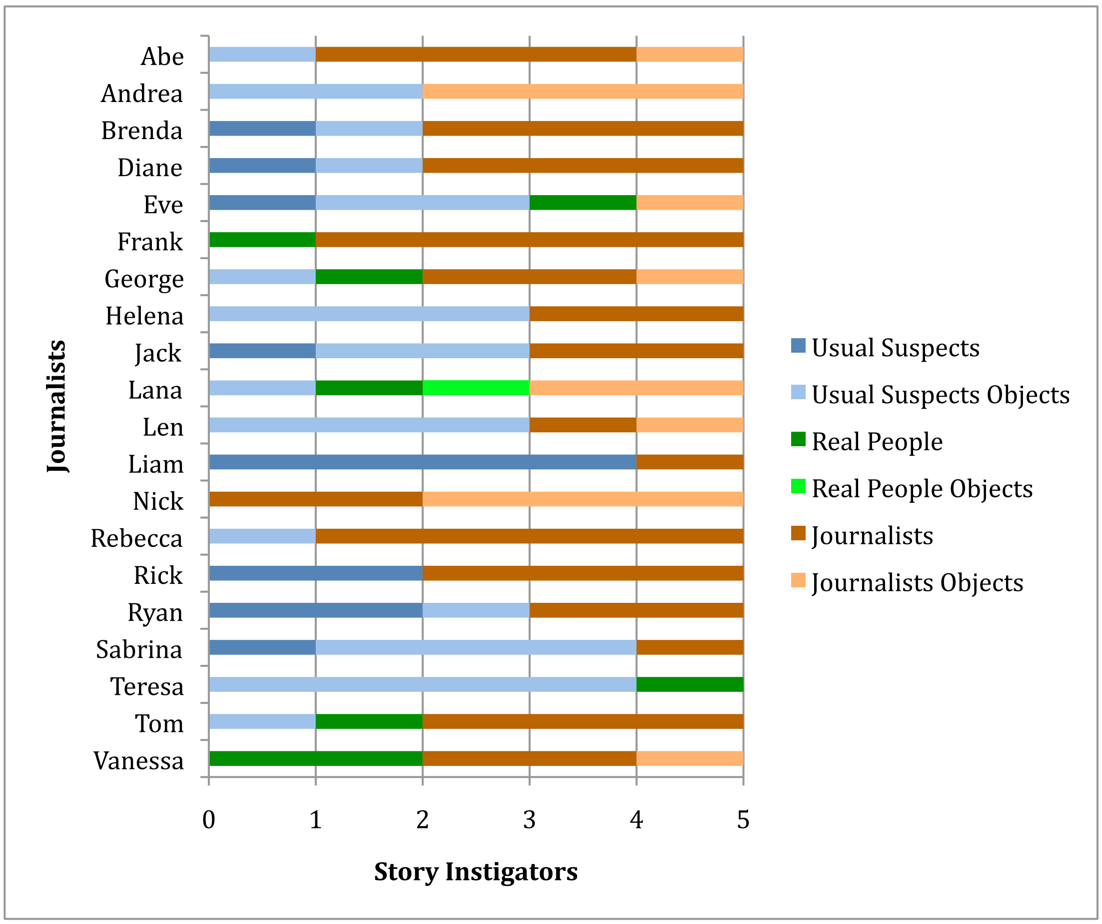

Figure A1. Instigator types for each journalist's stories.

The next figure shows the numbers of sources each journalist used for each story we discussed.

Reporter	Story	Usual Suspects	Usual Suspects Objects	Real People	Real People Objects	Journ.	Journ. Objects	Sources Total
Abe	1	1	1	2	2	1	0	7
	2	10	1	4	0	1	0	16
	3	0	0	6	1	1	1	9
	4	3	0	3	0	1	0	7
	5	1	0	1	0	0	0	2
Andrea	1	3	3	0	0	1	1	8
	2	2	3	0	0	0	1	6
	3	6	4	0	0	0	1	11
	4	4	1	0	0	1	3	9
	5	0	1	0	0	0	4	5
Brenda	1	0	2	1	0	0	0	3
	2	2	0	0	0	1	1	4
	3	1	2	1	0	1	0	5
	4	2	3	0	0	1	1	7
	5	2	1	0	0	2	0	5
Diane	1	7	0	0	0	0	2	9
	2	6	2	0	0	0	1	9
	3	1	2	0	0	0	2	5
	4	3	0	0	0	0	3	6
	5	2	0	0	0	1	1	4
Eve	1	5	0	0	0	0	0	5
	2	2	0	0	0	0	0	2
	3	4	0	0	0	0	2	6
	4	2	0	1	0	1	0	4
	5	2	1	0	1	0	1	5
Frank	1	1	1	0	0	1	1	4
	2	0	0	3	0	2	0	5
	3	0	1	3	0	1	2	7
	4	2	0	3	0	1	1	7
	5	0	0	2	0	1	0	3
George	1	1	0	2	0	1	1	5
	2	0	1	2	1	1	1	6
	3	0	1	4	0	1	0	6
	4	1	1	2	0	1	0	5
	5	0	1	1	0	0	2	4
Helena	1	7	2	0	0	1	2	12
	2	3	1	0	0	0	0	4
	3	6	2	0	0	0	1	9
	4	4	2	0	0	1	2	9
	5	3	1	0	0	0	0	4

Jack	1	3	1	0	0	1	1	6
	2	4	3	0	0	0	1	8
	3	5	1	0	0	0	1	7
	4	1	0	0	0	0	1	2
	5	6	2	0	0	0	2	10
Lana	1	0	3	6	0	0	2	11
	2	0	3	0	0	0	1	4
	3	2	1	1	0	0	1	5
	4	2	1	0	1	0	2	6
	5	1	1	2	0	0	1	5
Len	1	2	1	0	0	0	1	4
	2	2	2	0	0	0	1	5
	3	0	1	0	0	0	0	1
	4	2	1	0	0	0	0	3
	5	0	1	0	0	1	0	2
Liam	1	2	1	1	0	1	1	6
	2	1	1	1	0	1	1	5
	3	1	1	1	0	1	1	5
	4	1	1	1	0	1	1	5
	5	1	2	0	0	0	1	4
Nick	1	4	1	0	0	1	1	7
	2	3	0	0	0	1	2	6
	3	8	3	7	1	1	1	21
	4	24	1	1	0	1	1	28
	5	3	1	0	0	1	0	5
Rebecca	1	0	1	0	0	0	2	3
	2	0	3	0	0	0	1	4
	3	2	2	0	0	0	1	5
	4	3	2	0	0	0	1	6
	5	1	4	0	0	0	0	5
Rick	1	1	3	0	0	0	1	5
	2	3	1	1	0	0	1	6
	3	2	2	0	0	2	2	8
	4	1	1	1	0	0	0	3
	5	2	4	0	0	1	1	8
Ryan	1	1	3	0	0	0	1	5
	2	0	1	0	0	0	1	2
	3	2	3	0	0	1	1	7
	4	1	4	0	0	0	1	6
	5	1	1	0	0	1	1	4
Sabrina	1	7	9	0	0	1	4	21
	2	1	1	1	0	1	0	4
	3	3	6	0	0	1	2	12
	4	3	4	2	0	1	0	10
	5	2	2	0	0	2	3	9
Teresa	1	0	1	0	0	0	0	1
	2	0	1	0	0	0	0	1

	3	0	1	0	0	0	0	1
	4	0	1	1	0	0	1	3
	5	1	1	1	0	0	0	3
Tom	1	1	0	1	0	1	0	3
	2	1	0	2	0	1	1	5
	3	3	1	1	0	1	0	6
	4	3	1	2	0	0	0	6
	5	1	0	0	0	1	0	2
Vanessa	1	0	1	1	0	0	1	3
	2	0	0	1	1	1	1	4
	3	1	1	1	0	0	0	3
	4	0	0	1	0	0	1	2
	5	1	0	1	1	1	0	4
Total		225	141	80	9	53	92	600
% of All Sources		38%	24%	13%	2%	9%	15%	100%

Figure A2. Numbers of sources used in each journalist's stories.

Below are the word counts of each article, broken down by source type.

Reporter	Story	Usual Suspects	Usual Suspects Objects	Real People	Real People Objects	Journ.	Journ. Objects	Total Word Count
Abe	1	49	0	2175	0	276	0	2500
	2	615	37	393	0	243	0	1288
	3	0	0	599	73	537	0	1209
	4	446	0	246	0	60	0	506
	5	0	0	777	0	0	0	777
Andrea	1	144	288	0	0	87	56	587
	2	192	159	0	0	0	55	406
	3	224	284	0	0	0	43	561
	4	270	12	0	0	20	175	477
	5	0	23	0	0	0	112	135
Brenda	1	0	235	0	0	0	0	238
	2	0	0	0	0	83	86	169
	3	0	186	20	0	0	0	206
	4	100	29	0	0	0	33	162
	5	144	0	0	0	0	0	144
Diane	1	589	0	0	0	0	464	1053
	2	685	153	0	0	0	326	1188
	3	37	193	0	0	0	176	406
	4	540	0	0	0	0	388	972
	5	681	0	0	0	72	302	1055
Eve	1	358	0	0	0	0	0	358
	2	113	0	0	0	0	0	126

	3	116	0	0	0	0	162	283
	4	176	0	56	0	27	0	259
	5	109	39	0	0	0	139	287
Frank	1	22	66	0	0	641	77	806
	2	0	0	504	0	259	0	763
	3	0	77	598	0	31	31	737
	4	31	0	497	0	220	0	748
	5	0	0	589	0	140	0	729
George	1	36	0	424	0	195	111	766
	2	0	43	380	15	138	180	756
	3	0	91	590	0	68	0	749
	4	653	23	21	0	70	0	767
	5	0	129	561	0	0	60	750
Helena	1	428	69	0	0	76	29	602
	2	373	0	0	0	0	0	373
	3	264	128	0	0	0	53	445
	4	158	116	0	0	15	87	390
	5	139	87	0	0	0	0	228
Jack	1	195	128	0	0	109	82	514
	2	225	127	0	0	0	76	428
	3	211	23	0	0	0	161	402
	4	273	0	0	0	0	19	292
	5	364	76	0	0	0	105	545
Lana	1	0	209	337	0	0	18	564
	2	0	149	0	0	0	219	368
	3	117	158	0	0	0	64	339
	4	131	31	0	145	0	96	403
	5	16	26	278	0	0	32	352
Len	1	148	117	0	0	0	100	365
	2	213	180	0	0	0	0	363
	3	0	174	0	0	0	0	174
	4	15	245	0	0	0	0	260
	5	0	21	0	0	119	0	140
Liam	1	77	60	73	0	0	131	345
	2	13	33	50	0	53	37	186
	3	49	286	37	0	0	74	446
	4	40	64	55	0	64	99	322
	5	32	183	0	0	0	0	215
Nick	1	0	134	0	0	163	165	326
	2	368	0	0	0	85	113	566
	3	248	224	374	0	313	109	1152
	4	817	0	75	0	140	553	1431
	5	376	12	0	0	42	0	430
Rebecca	1	0	257	0	0	0	33	299
	2	0	579	0	0	0	24	588
	3	159	236	0	0	0	65	345
	4	150	132	0	0	0	47	271

	5	116	268	0	0	0	0	384
Rick	1	192	147	0	0	0	183	409
	2	487	170	45	0	0	71	483
	3	121	101	0	0	66	53	312
	4	42	45	118	0	0	0	205
	5	221	187	0	0	17	27	377
Ryan	1	200	398	0	0	0	162	760
	2	0	490	0	0	0	57	547
	3	136	315	0	0	100	77	528
	4	33	330	0	0	0	59	433
	5	46	300	0	0	0	112	442
Sabrina	1	375	868	0	0	84	125	1304
	2	89	40	19	0	252	0	360
	3	166	223	0	0	66	69	524
	4	212	106	33	0	289	0	640
	5	532	26	0	0	166	35	759
Teresa	1	0	108	0	0	0	0	108
	2	0	88	0	0	0	0	88
	3	0	88	0	0	0	0	101
	4	0	43	8	0	0	154	205
	5	23	96	38	0	0	0	157
Tom	1	67	0	726	0	192	0	985
	2	225	0	131	0	93	107	556
	3	230	61	251	0	159	0	701
	4	402	98	146	0	0	0	660
	5	109	0	0	0	58	0	214
Vanessa	1	0	16	29	0	0	70	121
	2	0	0	64	316	81	54	515
	3	44	59	15	0	0	0	118
	4	0	0	39	0	0	64	103
	5	0	0	147	45	0	0	192
Total		15997	11002	11518	594	5969	7046	50683
% of All Words		32%	22%	23%	1%	12%	14%	103%

Figure A3. Word counts of each journalist's stories.

At first glance, the sources in Figure A2 may not appear to match up with the word counts in Figure A3. This is because in some cases, journalists mentioned sources but did not attribute particular portions of article text to them. For instance, Abe indicated that he had used sources in his first story that were usual suspects' objects and real people objects. Those sources are reflected in Figure A2, but in

Figure A3 those types of sources are shown as contributing zero words to the story. Journalists might not attribute words to specific sources if they simply corroborated information given by other sources. Sometimes, sources also helped journalists understand particular topics better without providing specific information that made it into stories.

Despite the limitations of my sample, I believe these interviews yielded important insights into the reporting process. Journalists all found it easy to identify how stories began, as well as the steps they followed to gather information. They also generally found it to be a straightforward task to identify which information in their stories came from which sources. The fact that it was possible to gather this data from all journalists interviewed suggests that, despite their differences, their approaches to reporting also share things in common.

APPENDIX B: BEAT JOURNALIST INTERVIEW SCHEDULE

Where did the idea for this story come from?
Now I'd like to walk step by step through the reporting process. What did you do next?
    How did you reach your source (in person, phone, email, etc.)?
What did you do next? (ask as many times as is necessary until the journalist has recalled all sources used)

AFTER ALL SOURCES ACCOUNTED FOR:
How did you decide when you were done gathering information?
Were there other sources you wanted to use but didn't? If so, why didn't you use them?
How long did you work on this story?
What, if anything, was done to your story after you wrote it but before it was published? (i.e. editing, formatting)
Let's go sentence by sentence to match sources to the information they provided in your story.

AFTER ALL STORIES DISCUSSED:
How do you know when a source is credible?
Do you contact sources after you write about them? (i.e. to let them know when a story will be published, to get their reaction to a story, any other reason?)
What's your beat (if you have one)?
Do you use Twitter? Do you use it to find sources or in other ways?
    Facebook? Do you use it to find sources or in other ways?
    LinkedIn? Do you use it to find sources or in other ways?
    Other social media?
Do you have a regular media "diet"? (What media do you regularly read/watch/listen to?)
How long have you worked as a journalist?
How old are you?

APPENDIX C: PIN ANALYST SURVEY

1. How long has your organization used PIN?

☐ <1 year
☐ 1-2 years
☐ 2-3 years
☐ 3-4 years
☐ >4 years

2. Was it your decision for your organization to join PIN?

☐ Yes
☐ No

If yes, why did you decide to join? ____

3. How do you use PIN?

☐ Spot/quick turnaround news stories
☐ In-depth/investigative news stories
☐ Soft news/features
☐ Talk shows
☐ Other (please specify) ____

4. How much of your PIN use is dedicated to each of these subjects? Please specify in terms of percentage. Make sure the sum of all of your answers is 100.

____ Politics
____ Education
____ Crime
____ Science/Technology
____ Arts
____ Business
____ Lifestyle
____ Sports
____ Other (please specify) ____

5. In my organization, I

☐ have sole responsibility for PIN (though I may use it to find sources for other people)
☐ share the responsibility for PIN
☐ do not use PIN

If you share responsibility: what are your responsibilities pertaining to PIN?

☐ writing queries
☐ distributing queries
☐ maintaining PIN content on my organization's website
☐ reading query responses
☐ using keyword searches to find specific sources

☐ recruiting new sources
☐ managing relationships with sources (i.e. sending thank you notes)
☐ brainstorming ways to use PIN in my organization
☐ communicating with other PIN partner organizations
☐ Other (please specify) ____

6. On average, how many PIN queries does your organization send out per month?
☐ <1
☐ 1-5
☐ 6-10
☐ 11-15
☐ >15

7. How do you distribute queries?
☐ Email PIN sources already in the database
☐ Ask organizations (i.e. social service or neighborhood groups) to distribute to their members/clients
☐ Post query or link to query on my organization's website
☐ Post link on Facebook
☐ Post link on Twitter
☐ Other (please specify) ____

8. How many times per month does your organization use PIN to find sources without creating a query (for instance, searching by keyword and then calling or emailing sources individually)?
☐ <1
☐ 1-5
☐ 6-10
☐ 11-15
☐ >15

9. Based on your experience, what is the likelihood that a query issued by your organization will lead to useful responses from PIN sources?
☐ <25%
☐ 26-50%
☐ 51-75%
☐ 76-100%

10. Does your organization's website mention PIN?
☐ Yes
☐ No

If yes: where is it mentioned?
☐ Home page
☐ PIN has its own page
☐ Other (please specify) ____

What type of PIN-related content is on your organization's website?

- ☐ Queries (or links to queries) for stories we're working on
- ☐ General query (or link to query), i.e. "Joining the Public Insight Network"
- ☐ Finished stories that have "PINfluence" (used the insights of PIN sources)
- ☐ Description of what PIN is
- ☐ Other (please specify) ________________________________

11. Does your organization try to recruit new PIN sources in ways other than on your own website?

- ☐ Yes
- ☐ No

If yes: how?

- ☐ Other media channels owned by our organization (i.e. newspapers, magazines, radio, TV)
- ☐ Facebook
- ☐ Twitter
- ☐ Public events
- ☐ Asking non-PIN sources we've used in the past if we can add them to PIN
- ☐ Other (please specify) ________________________________

12. How do you feel about the level of support that American Public Media provides to PIN users?

- ☐ APM provides more support than is needed
- ☐ APM provides the right amount of support
- ☐ APM provides less support than is needed
- ☐ I don't know what support APM provides

13. When was the last time you visited PIN's support website (http://support.publicinsightnetwork.org)?

- ☐ < 1 month ago
- ☐ 1-3 months ago
- ☐ 3-6 months ago
- ☐ > 6 months ago
- ☐ never

14. When was the last time you communicated with someone at American Public Media about PIN?

- ☐ < 1 month ago
- ☐ 1-3 months ago
- ☐ 3-6 months ago
- ☐ > 6 months ago

☐ never

15. What specifically did you discuss?
   - ☐ Query ideas
   - ☐ Technical issue
   - ☐ Other (please specify) ____________________

16. When was the last time you communicated with someone at another PIN partner organization about PIN?
   - ☐ < 1 month ago
   - ☐ 1-3 months ago
   - ☐ 3-6 months ago
   - ☐ > 6 months ago
   - ☐ never

17. Have you attended a PIN Camp? PIN Camps were events held at APM's offices in St. Paul, Minnesota in May 2011 and May 2012 to share best practices and learn about future developments in PIN.
   - ☐ Attended in 2011
   - ☐ Attended in 2012
   - ☐ Attended both
   - ☐ Attended neither

18. Please indicate the extent to which you agree with the following statements about PIN.
   - ☐ Helps us contact sources that would otherwise be difficult to find
   - ☐ Diversifies the sources we use
   - ☐ Helps us find sources with expert knowledge
   - ☐ Helps us find "real people"
   - ☐ Helps us find sources with no agenda
   - ☐ Helps us find sources quickly
   - ☐ Helps us do stories we otherwise couldn't do
   - ☐ Leads us to new story ideas
   - ☐ Other (please specify) ____________________

19. Please indicate the extent to which you agree with the following statements about PIN.
   - ☐ Takes too long to get responses
   - ☐ Needs more sources
   - ☐ Needs more diverse sources
   - ☐ Recruiting new sources is difficult
   - ☐ Source responses are not useful
   - ☐ Creating queries is difficult
   - ☐ Distributing queries is difficult
   - ☐ People in my organization don't want to use it
   - ☐ Other (please specify) ____________________

20. Please give an example of when PIN was especially useful to your organization.

21. Please give an example of when PIN was not useful to your organization.

22. How do you evaluate PIN's performance? Do you set any goals, keep any kinds of metrics, or have other ways of measuring its success?

23. What else should I know if I really want to understand how PIN works?

24. May I contact you to ask some follow-up questions? If so, please provide your name and an email address and/or phone number where you can be reached. I will keep your identity and anything you share confidential.