Mountain News Net: An Exploration of Police Radio and the Overlooked Pioneers of User-Generated Content

by

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ABSTRACT

Although nearly invisible to the public, millions of hobbyists around the world have for decades played an important role in local journalism. Whether it is a bank robbery, train derailment, car accident, or the rescue of a cat stuck in a tree, chances are police scanner listeners will hear it and some will tip off journalists. These "if it bleeds it leads" stories are, for better or worse, an important part of local television newscasts and other forms of local news.

Long before internet content creators and social media sites, scanner hobbyists formed groups that created information feeds to share with each other and the public. In the 1990s, for example, a group of listeners in Colorado started a Twitter-like news sharing service for its 500 members, sending out updates over a network of alphanumeric pagers. Mountain News Net continues its work today using modern technology.

What is perhaps least known about scanner hobbyists is that Mountain News Net and certain other listener groups relied on journalistic-style principles and news values in the material they shared. Mountain News Net's small team of "dispatchers" rely on well-understood guidelines for their feed, gatekeeping what is sent to their members. Local News providers in Colorado also work with the group to get access to news tips.

Indeed, there is much to be heard on a police scanner, usually small dramas that unfold in real-time, providing a record of events from the first responder perspective. Listening to these stories can be so compelling some listeners won't go anywhere without

their radios. Jack Dorsey was a scanner listener as a child, and he said the experience inspired him to help create Twitter.

This dissertation brings to light this unexplored world of public safety radio and its close connections to journalism and user-generated content. The nearly century-old hobby is examined in a historical context, and through semi-structured interviews with Members of the Mountain News Net and other key informants provides a deep explanation of how these pre-internet citizen journalists came to be and the role they play today.

For my wife Allison Rozzell for her unending support and sacrifice over the years as we moved to Flagstaff so I could begin an academic career while still completing this dissertation.

I would also like to dedicate this dissertation to my father James R. Rackham who instilled in me the ambition and determination to never give up.

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CHAPTER 1

INTRODUCTION

The call went out on the police radio on a blustery Monday afternoon on March 22, 2021. Someone had opened fire in a supermarket in Boulder, Colorado. KUSA-TV recorded the police scanner as it happened:

> Dispatcher: “Copy, active shooter inside the building, he shot at them twice,”
>
> Officer 1: "We have an officer down inside the building."
>
> Officer 2 "One-Thirty-six, we're in a gunfight ... hold the radio.
>
> Officer 3: He’s shooting!
>
> Officer 2: “One Thirty-six still multiple shots being fired at us. Does not sound like an A-K.” (Campbell-Hicks and Brennan, 2022)

When it was over, ten people lay dead in in the supermarket and the world reckoned with yet another mass shooting. Millions of people would soon follow the unfolding events on and across media platforms.

This dissertation explores the little-known community of scanner listeners around the world who share the real-world stories they hear while listening in on events like the Boulder shooting. There is a surprisingly large group of scanner listeners, and the hobby has been around as long as police radios. Some communities of scanner listeners share streams of content with “incident reports” of things they hear over the scanner. They create user-generated content that is shared on social media and through private feeds. Some of these feeds have gatekeepers who employ journalistic news values and standards

in deciding what to share. For decades listeners and scanner groups have provided tips to journalists when news breaks. Today, technology allows them to tell their own stories and distribute them worldwide.

True Crime

Like many people, I enjoy detective dramas in books, true crime podcasts, and so-called procedural television shows. The idea of solving mysteries has a wide appeal in our society. "From the broadsheet to the blog," John Carter Wood wrote, "the appeal of crime news has transcended all eras, formats and national borders" (as cited by Knepper & Johansen, 2016, p.301). Scholar Ian Punnett (2018) identified True Crime as "an occasionally controversial multi-platform genre that is most often associated with murder narratives and shares some common ancestral heritage with journalism but always has been driven by different impulses" (p. 6). True crime narratives are as "old as creation" (p.5) and can indeed be found within the Bible. While sharing roots with news, true crime seeks to create emotional connections to true events and impart moral messages and social realities using colorful, rich, and entertaining narratives.

There are certainly emotional sensations and social truths for the scanner listener, but experience comes with the added excitement of hearing events as they occur. It's important to think of true crime since a major focus of this dissertation is the content scanner listeners hear and sometimes share. I would contend that, perhaps even when telling tall tales of things overheard on the scanner with friends and family, listeners may be imparting true crime stories, or at least conveying important and relevant dynamics that reveal much about engagement and the ways in which news is understood. But when

scanner listeners share content for the general public, in many cases, the information more closely resembles journalistic material, with attention given to accuracy, credibility, and avoidance of personal opinion. This research finds that some scanner groups that share content put forth an effort to create an accurate account of what they monitor on the police radio, and that that purposeful effort is in substantive ways analogous to journalistic rigor.

Scanner listening is not unlike listening to a true crime podcast, if you don't mind all of the other clutter that is interspersed with the story and the absence of any kind of narrator or host. Bit by bit, from the original dispatch to whenever an incident ends, scanners bring listeners into a world of mini dramas that can be as compelling a good true crime book. These mini dramas often end in arrest, or the fire being put out, or the cat rescued from the tree. Sometimes incidents don't have an ending at all, but it was fun being along for the ride. Perhaps the most interesting part is that it is all real and it happens live. Perhaps part of what ties scanner groups to the practice of listening and sharing stories is rooted in the experience itself, with the reward being entertainment and the potential to be part of an information chain. Perhaps it's also the chance to help a fellow human that keeps them involved.

Listening and Sharing

Members of a little-known scanner group were among the first to learn about the shooting at King Soopers, the supermarket cited in the opening anecdote. Colorado's Mountain News Net is one of hundreds of organizations in the United States sharing information gleaned from police scanners. Some of these groups are hobbyists, some

consider themselves to be local news outlets, others are neighborhood organizations concerned about safety. These information-sharing services disseminate potential news items overheard on public safety radio channels via streams of information distributed on social media, email, on two-way radio systems, or pagers.

Why do they do they listen, and why do they share? For Mountain News Net members, there are a lot of reasons. Some simply enjoy scanner listening to live vicariously through the activities of police and firefighters. Then, there is the sense of belonging that comes with sharing information with a group of people who have similar interests. Another reason is the enjoyment members get by helping local media cover breaking news. Colorado has had its share of major news events in recent years, from mass shooter incidents to some of the largest wildfires in state history. For whatever the reason, Mountain News Net's group of avid scanner buffs have been sharing news tips on events like these since the early 1990s.

Several hundred News Net members – including most of the major local Denver media outlets – receive these dispatches. Initially, the group shared information using alphanumeric pagers, creating a Twitter-like feed of short messages distributed on the pagers. As technology improved, Mountain News Net adopted new ways to share -- through Yahoo groups, text messages, the walkie-talkie-like app *Zello,* and the encrypted chat app *Signal.* The group continues its work today. Ironically, Mountain News Net Founder Jim Richardson said the News Net experimented with a closed Twitter feed but ended up giving up on it because it was too hard to limit access to members only. "We played with it a few times and just decided the whole closed versus open versus who's it

available to, who is it not available to, and is there any way to, like, charge for a subscription and monitor that? So, we decided to abandon it."

This is significant in a time when sources of local news are shrinking or disappearing due to changing business conditions caused by many factors, including competition from large tech companies like Google, Facebook, and Twitter (Hayes & Lawless, 2018). Modern news organizations I spoke with make use of these scanner tips – but tend to verify them first. Thus, groups like the Mountain News Net provide a service to local, and sometimes national, news providers.

The group is made up of first responders, hobbyists, journalists, and curious individuals from all walks of life. I know this from working with Mountain News Net in the 1990s as part of my job on the assignment desk at KCNC-TV in Denver. The station maintained there was value to these news tips and therefore paid to be a member of the News Net, as did other news organizations in Denver. The tips were part of the vast flow of information that reaches newsrooms every day. There were many occasions, particularly during severe weather, when News Net tips led me to important stories.

A brief search of Facebook reveals that there are currently a significant number of listening groups, some called incident notification services, including AV Scanner News, Kokomo Scanner, St. Charles County, Missouri Scanner Traffic, and many, many more. Using Mountain News Net as a focus, this dissertation peeks inside the world of scanner listeners, especially those who like to share what they hear. I explored their motivations, their membership, what they understood of their impact in the media landscape, and their adoptions or replications of editorial standards where they may exist.

I found these people create news tips for their own purposes yet provide much-needed user-generated content for barely surviving local news outlets. From the inception of this project the hope has been that this study, and subsequent work by others, will lead to useful insights about citizen participation in the creation of news. I believe that underlying motivation has made me sensitive to what they had to share in that regard, and that my affinity for the work added to the validity, rigor, and potential usefulness of my insights and results.

What is Mountain News Net

To be clear, Mountain News Net is a group of people who enjoy listening to police and fire channels. The club was formed in the 1990s so members could share with each other what members hear over the scanner. They created a private subscription feed of information that was first distributed through short messages on alphanumeric pagers, and later using text messages and other delivery methods. There is a $30 membership fee, and news agencies pay more.

Many members are present or former public service workers, others are just hobbyists who enjoy listening. They listen for a variety of reasons as I will discuss later in this dissertation. Journalists also use the Mountain News Net feed which many describe as a tip service that is particularly useful for breaking news. It is common for news agencies to verify any tips before they are reported.

Law enforcement agencies, as you will read, often have objections the idea of scanner listening. The primary argument is that criminals can listen in as well, and that scanner buffs might show up at crime scenes. There is a widespread effort nationwide to

encrypt public safety channels, blocking scanner listeners. This has happened in Denver, where Mountain News Net is based, but members say they have found workarounds that allow them to continue to gather information about breaking news events.

Listening and Producing Content

What makes the work of groups like Mountain News Net most interesting in terms of journalistic communication is the content stream they create. Mountain News Net's feed is much like the breaking news disseminated on social media, created by people we know today as citizen journalists. The difference is that Mountain News Net was operating its news feed years before the internet was widely available. This research provides insight into these pioneers who could arguably be considered the first citizen journalists to use electronic tools to gather information and distribute it. Their feeds resembled what could be called an analog version of Twitter.

If citizen journalism existed before the internet, then we must accept that user-generated content (currently referred to as UGC in general industry practice) did as well. Radio enthusiasts have been listening to police radios and sharing their user-generated content with increasing technical sophistication since the early 20th century (Kimball, 2020). Some scanner buffs work in fire and police departments or other public safety related jobs, but many simply enjoy the thrill of listening in on police calls as they happen and sharing with others.

As of this writing, there is little research focused on scanner radio enthusiasts, and much of what is available has to do with public service broadcasts as a news source, (Berkowitz, 1987; Lipschultz & Hilt, 2002); the tidbits of scanner information shared on

social media during breaking news or disaster situations (Tapia, & LaLone 2014; Starbird et al., 2014); individuals who broadcast scanner feeds on the internet (Miller, 2016); and hobbyists who are increasingly being shut out of scanner channels as police and fire departments adopt radio encryption (Middleton, 1995). There is little to be found in the literature about the interaction between scanner listeners and journalists, or scanner listeners as producers of content. This is unfortunate because, as I have noted, some scanner groups found ways to cooperatively develop streams of information to engage their members and share with journalists. It is also a bit surprising, because scanner listeners have such a common presence in news gathering and reporting. Many reporters listen scanner radios and sometimes get tips from scanner listeners. The work of scanner hobbyists as content creators occurs at the intersection of technology and journalism, yet the topic lies squarely within a gap in the scholarly literature. As this dissertation demonstrates, there is much to learn about scanner listeners and their ongoing role in the local news ecosystem.

Purpose

Within the Mountain News Net, journalistic-style news values and some standard journalistic practices clearly play a role in the gatekeeping of their news feed. A small group of News Net "dispatchers" routinely work to verify reports from members before they are shared with the entire group. "We decided, we established, an initial criterion of what we considered newsworthy," according to James Richardson. The dispatchers are typically experienced scanner listeners; some are current or retired public safety workers. It is not uncommon, Richardson said, for a group of dispatchers to discuss an incident to

determine its newsworthiness and accuracy before deciding if it should be sent out to the members.

Currently there are about a dozen dispatchers scattered around Colorado, with most of them located around the Front Range of the Rocky Mountains. Richardson said he looks for certain traits when evaluating potential dispatchers.

> I think honesty becomes one of the big ones because they're monitoring these situations and they have to try to convey the information accurately and honestly that's occurring. And we've had, I wouldn't say problems, but we've had issues with sort of "fire buff"-type mentality, people that tried to make something bigger and better than it actually was or would, you know, would inaccurately emphasize the information a little bit about an incident and or go and try to represent themselves at the scene as a dispatcher for Mountain News, things like that. So, I think just sort of the integrity and the honesty is important and has been important. The other thing ,,, I've had pretty good luck with is mostly either active or retired first responders of some sort. So, firefighters, police officers, paramedics, you know, nurses, doctors, things like that, people that are in the business in one way or another or have been definitely seen to be more reliable and seem to provide better quality for dispatchers.

This research compares the "editorial standards" of the Mountain News Net with traditional journalistic news values and practices. This is an example of the spread of journalist news values beyond journalism to creators of user-generated content. Members of the News Net also have an important story to tell about the use of technology to share

information with specific audiences.

Major news stories occasionally thrust scanner listeners into the spotlight. Incidents such as the deadly school shooting in Newtown, Connecticut, in 2012 (Buttry, 2014) and the 2013 Boston Marathon bombing (Starbird et al., 2014) are among many events that, rightly or wrongly, show that scanner reports became a driving force in modern breaking news coverage. This is nothing new. Scanner listeners have been providing tips to journalists for decades (Lipschultz & Hilt, 2002). In the 1920s the photographer known as "Weegee," Arthur Felig, used a police radio to find many of his stories (Bonanos, 2018). He would often tip off journalists to events so he could sell them photos. Even in the 1920s and early 1930s when police radios were barely in use, police radio listeners were already showing up at crime scenes, sometimes before officers arrived ("Police Ask for Protection," 1931). Felig knew the value of this new technology. He was the first journalist to receive permission to carry an NYPD police radio.

Having worked in news since the early 1980s, I have regularly received tips from scanner listeners and developed long-standing relationships with some of them. These hobbyists occasionally offered technical advice, audio recordings, photos, and video of news stories. As a radio and television journalist, it was important to develop a strong relationship with these individuals so they would not give information or video to competing stations. These scanner buffs were just like many of today's citizen journalists, years before the term was popularized in the web era.

It should come as no surprise that the feeds produced by listener groups bear a striking resemblance to the Twitter content stream. That is apparently no accident.

Twitter Co-Founder Jack Dorsey has repeatedly said the idea for the app came to him as he recalled his childhood habit of listening to railroad dispatchers on a scanner (Weller et al., 2014; Musil, 2013). It is also no coincidence that Twitter's initial 140-character limit produced short messages, much like those broadcast over scanners and shared over alphanumeric pagers. Police and Fire dispatchers favor brief transmissions at least in part to keep channels open for others who may need them (Wood, 2014).

Significance of the Research

The story of scanner listeners and listening groups is an important topic because there are gaps in scholarly knowledge about the creation and distribution of user-generated content before the internet era, an omission that affects what we understand about what became a global phenomenon and a powerful shift in communication dynamics. This study informs gatekeeping research, for example, by examining how Mountain News Net filters or edits the information shared with news organizations and on their own content feed. Just as letters to the editor provide valuable feedback to newspapers (Lobato et al., 2011), content created by scanner buffs is becoming increasingly important as traditional news organizations shrink. The organizational understanding that comes from this research sheds light on the way news values and routines are constructed, and their similarities and differences with professionally oriented journalism practice. Most importantly, perhaps, it illuminates shared practices and understandings between people serving in many ways as news reporters and the journalists themselves, which helps broaden understanding of how journalism fits into a greater societal and human context.

Of course, there is a technological aspect to scanner listening. Many of these radio hobbyists were often early adopters (see Rogers, 2010) of technology, allowing them to keep up with increasingly complex public safety transmission methods (Starbird et al., 2014). These hobbyists learned to use state-of-the-art technologies to share content they created (McManus, 1996). Early listeners used simple one-tube adaptors to listen to police broadcasts. The technology evolved to tunable receivers, crystal-controlled radios, and up to today's digital devices.

As the technology developed, so did the culture of so-called scanner buffs. Groups of listeners formed, and some began sharing content overheard on police radios. Listeners also developed relationships with journalists, and some eventually became citizen journalists. This dissertation demonstrates how some scanner groups now employ journalistic news values and practices to varying degrees and suggests that scanner listeners often serve the public good. The story of these pioneers in user-generated content is told here by first constructing a background using methods anchored in historic research. The overview establishes a context for understanding information gleaned from a series of qualitative interviews with 18 current or former members of Colorado's Mountain News Net, nine individual scanner listeners and/or journalists, and the operator of a commercial incident reporting service. The analysis identifies and examines news values of the Mountain News Net participants as compared to those of traditional journalists.

This research comes at a dire time for the business of journalism. Local newspapers are closing at an astounding rate (Sullivan, 2020) and the need for user-

generated content is quite likely to grow in communities thought to be news deserts (Zeng et al., 2016; Napoli et al., 2018). If an overwhelming number of previous studies hold true (Agirdas, 2015; Darr et al., 2018; Heese et.al, 2022; Shaker, 2014), newspaper closures are likely to have a serious impact on the basic American principles of democratic self-governance. The key argument here is that informed, thoughtful decisions about who or what to vote for cannot be made if there is no access to clear, independent reporting. As the watchdog role of local journalism goes increasingly unfilled, public officials may well be able commit questionable or corrupt acts that go unnoticed (Rubado & Jennings, 2020).

Finally, we consider the motivations, whether stated, suggested, or implied, of the scanner groups with regard to creating valuable content without compensation. Could it be solely because they enjoy it and feel they are providing a public service, or is there more at play? It would seem this could be useful option, if better understood, for news organizations looking to shore up their news coverage. Since little research exists into public safety radio monitoring, particularly pre-internet, this study could lead to additional research into ways hobbyists in other areas might be encouraged to produce journalistic user-generated content to help fill the increasing gaps in local news coverage.

Although the name user-generated content seems to imply the meaning of the term, there are actually a variety of definitions. Most of these are built around the essential notion that user-generated content is media content produced by non-professionals. According to Krumm et al. (2008), user-generated content is the work of

"regular people who voluntarily contribute data, information, or media that then appears before others," (p 10).

This study makes the case that that scanner listeners are the overlooked pioneers in user-created content who sometimes provide a significant public service. Long before the internet, these citizen journalists engaged in the social sharing of user-generated content within their own groups and with established journalists. I examine several key areas, starting with the dynamics of the relationship between journalists and scanner listeners followed by the criteria used by Mountain News Net dispatchers to decide what to share with its members. This will be compared with the news values and practices of journalists. Finally, I will suggest that the role of these hobbyists may be more significant than has been widely recognized, and in many cases, should be considered a public good.

To some, scanner listening is a complicated and perhaps confusing hobby. There is no doubt it is highly technical. To add some clarity, I continue with a background section with a brief history and description of the hobby and those who participate. A review of relevant literature serves as a prelude to the research questions. This is followed by the methodology, results, discussion and recommendations for future research.

CHAPTER 2

CONTEXTUAL BACKGROUND

Scanner listeners are often eyewitnesses to history. A prime, but not uncommon example of this occurred on the morning of December 18, 2017, as train dispatchers responded to an emergency message from the railroad engineer driving of Amtrak 501:

> Amtrak 501: Emergency! Emergency! Emergency! This is Amtrak 501. We are on the ground!
>
> [Garbled transmissions]
>
> Dispatcher: Train dispatcher 501 come in.
>
> Amtrack 501: Answering Centralia North, over,
>
> Dispatcher: What happened?
>
> Amtrack 501: We were coming around the corner to that the bridge over I-5 right north of Nisqually and we went on the ground.
>
> Dispatcher: Is everybody ok?
>
> Amtrack 501: I'm still trying to figure that out. We got cars everywhere and it's down on the highway. (Western PA Incident Audio/News, 2017)

Three people died in the derailment, and 57 passengers and crew were injured, when Amtrak 501went off a bridge near Dupont, Washington, and onto Interstate 5. Another eight people driving along I-5 were also hurt in the accident involving 77 railcars that caused more than $25 million in damages (NTSB, 2019). I found it hard to turn away when listening to the 10-minute clip of the scanner audio posted on YouTube. Each minute revealed new details as first responders worked to care for the injured. Like a mystery, the story slowly unfolded. Even garbled transmissions didn't keep me from wanting to hear more.

Listening to this clip is not easy. There is frank talk about serious injuries. Also, other radio traffic constantly interrupted the dispatcher, making it hard for victims and emergency workers to connect. Even so, the story drama is compelling. The dispatcher is heard rerouting trains and asking for the specific milepost where the train derailed. Another train reports in, saying a number of Amtrak cars fell off a bridge and wound up on Interstate 5. This prompts the dispatcher to urge calm, "Let's keep moving guys, I know it's not pleasant, but we need to keep moving so we don't block any road crossings that emergency vehicles can use."

Soon an unidentified voice comes on, frustrated and concerned that he cannot reach Amtrak 501: " I just can't get ahold of anybody, that's why I'm worried," he said. After a couple of minutes of jumbled conversation, the dispatcher reaches someone aboard 501, and asks about the condition of the engineer. "He's conscious. Both eyes are swollen shut and he's bleeding from the head," is the response. Another rail employee is

also injured with a broken femur. It is almost like a radio play, complete with occasional sound effects in the background. The good news, someone reported, was that the pair of engines managed to stay on the tracks.

The background section begins with a look at what can be heard on police scanners, followed by the emergence of public safety radio and the development of scanner listening to the present day. Historical methods were employed in this section. The goals here are to learn from the past, to seek a fresh interpretation of history," or to simply "explain particular things from the past with fullness and truth" (Startt & Sloan 2003, p. 14). Marwick (1970) argues that history has an important function in that "a society has to know itself and to understand its relationship with the past and with other cultures and societies" (p. 10). By examining the development of public service radios and scanner listeners, amateur radio operators and other hobbyists who listened to those communications, we may learn more about the explosion of amateur content today. We just might also develop a clearer understanding of some of the effects of social media. As Apple computer founder Steve Jobs said, "You cannot understand what is happening today without understanding what came before" (Berlin, 2015).

This overview provides background based on primary sources whenever possible, including interviews, as well as newspaper articles, and magazines from the time periods when events occurred. There appears to be a surprisingly large body of this material available, although specific records from hobbyist clubs in the early days of radio are rare. The goal here us to provide a foundation for understanding why the experience of

listening to the travails of crime victims, the battle to put out a fire, or even the story of truck that spilled thousands of gallons of molasses on a highway, has become a pastime for so many. I will also examine how groups of scanner listeners began sharing information with each other and members of the public, sometimes in journalistic-style news feeds.

Scanner Traffic Provides a Record of Events

Today many public safety radio channels around the world are streamed live, and in some cases, recordings are kept as a permanent record by listeners and companies such as Broadcastify (www.Broadcastify.com). Occasionally bits of scanner conversations end up in news stories, perhaps to clarify a point or highlight the drama (see: "Bandits shoot police chief, escape trap," 1950). For many years 9-1-1 calls have become common content in major stories on the local and national level, and it would seem likely scanner communication could become more common in news coverage. The reason is simple. Listening to an event unfold over a police radio generally provides significant amounts of detail that may or may not be released by authorities. An example of this is the 1989 crash of a medical helicopter that left four people dead on Larch Mountain, about 25 miles northeast of Spokane, Washington. The Associated Press (1989) story relied on a scanner listener who related many details of the accident, which involved three crew members and an injured Canadian fugitive. Sitting at his home, scanner listener Bob ZInkgraf heard the last transmissions from the pilot, who said there had been a scuffle aboard. As it turns out, according to the AP, the Federal Aviation Administration was not

monitoring the transmission. The National Transportation Safety Board would later conclude that the fugitive passenger did indeed cause a disturbance on the helicopter before it went down. (NTSB, 1989)

Scanner accounts have been used in news reports for decades. More than 70 years ago, the Pittsburgh Sun-Telegraph ("Bandits shoot police chief, escape traps", 1950) reported the harried words of a police officer tailing a robbery suspect:

> Officer: "There's another police car in front of them… The Chief is trying to flag them down. They're shooting. A policeman's down…
>
> Dispatcher: Shoot Back!
>
> Officer: Those hold-up men just shot an officer. They're dangerous! Shoot when you see them! (p. 3)

The Police Chief of Neville Township, Pennsylvania, was wounded in the battle. The two bandits who had robbed a real estate office managed to get away. It is important to note that news organizations typically verify scanner reports before publishing them. WBUR (2013) in Boston put it this way: "The police scanner is a blunt instrument, not a source of solid facts. It's a real-time conversation of tips, rumors, and leads being passed back and forth by untold numbers of nameless officials" (para. 4). It is probably safe to say that many, if not most, newsrooms encourage reporters to stay away from reporting directly off the scanner without verification.

Police Radio Listeners 1930-1970

Databases including ProQuest Newspapers, Newspapers.com and an internet archive of Hugo Gernsback's radio magazines provide a wealth of information about police radios and listeners. After many hours of searching using a variety of search terms such as "police radio listener," "eavesdropping police radio," and many more, several themes emerged. For example, a significant number of stories across the decades seemed to position scanner listeners as wrongdoers ("Police radio use",1932), and in some cases police took action to stop them ("2 police listeners held", 1958). Some of those same newspapers also portrayed scanner listening as exciting—even writing articles with headlines apparently aimed at police radio fans such as "Radio listeners hear thrilling police chase" (Associated Press, 1953). It was also common to see police radio touted as an effective crime fighting tool ("Short wave is aid", 1934).

Another common theme involved the humorous approach, with newspapers carrying short filler items entitled "Overheard on the police radio." One such UPI report out of Ft. Wayne, Indiana, in told of officers who were called to find a man walking down the street with a bag over his head with a clever headline that said Police were looking into an 'undercover' citizen, (United Press. 1949). The *Windsor Star* carried another item supposedly overheard: a dispatch sending officers to pick up a drunk man on Bourbon Avenue ("Overheard on the police radio", 1956).

Is it Legal to Listen to a Police Scanner?

Laws relating to scanner listening vary from state to state. According to the most recent information, it is illegal in Oklahoma to listen to a "mobile radio capable of

receiving law enforcement transmissions for illegal purposes or in the commission of a crime." (Radio Sets Capable of Receiving on Police Frequencies - Unlawful uses, 2014). In Arizona, it is illegal to interfere or try to interrupt the operation of public safety communication. (Interference With Transmissions on Public Safety Land Mobile Radio Frequencies, 2022). Some states, including Indiana, outlawed scanner listening in the 1950s ("2 Police Listeners held", 1958). Indiana has apparently loosened its restrictions a bit, making scanner listening illegal only when interfering with police communication, in the commission of a crime, or to avoid detection by law enforcement (Unlawful Use of a Police Radio, 2021). Regardless of the laws, police scanners are widely available throughout the United States, and scanner listeners can be found in every state. Generally speaking, owning and listening to a police radio is legal, as long as it isn't used to perpetrate a crime.

Police Radio Listeners Behaving Badly

Not long after the first police radios came into use, *The Los Angeles Times* ("Public tunes in on crime wave", 1931) wrote about a trendsetting pair that found amusement in chasing police calls.

> An elderly couple that lives in the fashionable Wilshire district are reported to have become rabid crime fans. Their identity was not disclosed, but on several occasions, they have reached the scene of a disturbance in their limousine almost as quickly as the radio car. After frequent meetings police inquired as to the big idea, whereupon the gentleman replied that they were merely on hand to see what might happen. (para. 5)

The advent of police radio spawned the "radio racketeer," wrote the *Times,* who for a small sum would "let old John Q. Public in on the ground floor of the Los Angeles crime situation" ("Public tunes in on Crime wave", 1931, para. 2), The author's suggestion: start using coded transmissions to keep John Q. Public out of police business.

My search through newspaper archives suggests that most Americans were well aware that police radios had taken a role in American society not long after they went into use. One final theme emerged from this search: scanner listeners as tipsters. In San Bernardino, California, for example, a woman helped police nab a husband-and-wife robbery team ("Police radio listener acts as detective", 1954). The woman had been at home listening to the police radio when she spotted the suspects' car through the window.

The *Branford Ontario Expositor* noted in 1946 that a man who gets "a kick out of listening to the police radio" ("Toronto police radio in a fast pickup", 1946, p, 12) helped police capture a pair of youths who robbed a woman inside her car in Toronto. And then there is the story of the "Ethical photographer"(1950, p.5) in Indiana who heard a police officer call about an unconscious neighbor. *The Zachary Plainsman-News* reported the man quickly ran to the rescue, saving the woman's life rather than taking pictures of an obvious news story.

It is important to again note that this section is about using scanner conversations in stories after they have been verified. Competitive pressures and the excitement of breaking news clearly test journalistic rules, like verifying scanner reports before reporting them.

History of Radio Regulation

The development and evolution of police radio took place in the early days of the medium itself and it is important to understand the broader story of radio and its growth during the this time. Much of the development of radio in those early years can be attributed to amateur hobbyists (White, 2003). It was largely a Wild West atmosphere with no regulation before 1912. Amateur and commercial radio stations interfered with each other as they competed for radio spectrum. This also had the effect of placing all the players in the radio game on an equal footing, with neither amateurs nor commercial stations having any regulatory advantage.

At that time, and into today, the prominent group representing amateur radio operators is the American Radio Relay League, or ARRL. In the League's journal *QST* (Vermilya, 1917, Feb.), a man named Irving Vermilya claimed to be the very first radio amateur, who constructed his own wireless telegraphy set-up. He referred to others entering the hobby as "knights of the air." (Vermilya, 1917, March, para. 1). Magazine publisher and innovator Hugo Gernsback, who is cited later in this dissertation, was a strong supporter of amateur radio and would go on to publish magazines with radio plans and articles aimed at the radio hobbyist.

Complaints increased against amateur radio operators, who each possessed varying levels of skills and radio expertise, aa they were said to be causing excess interference, (White, 2003). There were growing calls to regulate amateurs, allowing them to transmit only on frequencies about 1500 Kilohertz. The Radio Act of 1912, the first major legislation regulating radio in the U.S., did just that, and essentially took

control of the broadcast spectrum to reduce interference and bring order to the airwaves (Houlihan, 2016). Licenses were also required for radio operators. This included commercial and amateur stations.

Arguably (Godfrey, 1982) the first commercial radio broadcast in North America, on Westinghouse's KDKA in Pittsburgh, occurred in 1920. At that time the airwaves were dominated by non-profit broadcasters (Lippman, 2007). Just ten years later, commercial stations would dominate. Lippman argues that two factors played a key part in this transition: the development of on-air advertising, and government regulation that gave commercial stations a competitive advantage over non-commercial stations.

One of the key innovators who contributed to the boom in commercial radio in the 1920's was a young RCA executive named David Sarnoff. His now famous "music box memo," suggested that radio could become a home music box with a receiver in every parlor (Sarnoff, 1920). He suggested that RCA could "bring the price of radios down to about $75 and produce a million of them" (Silverman, 2017). Sarnoff would go on to create the dominant Red and Blue NBC radio networks which were part of a huge consolidation in the radio industry beginning in the 1920s (e.g., Lippman, 2017).

The Beginning

It was during the early boom in radio that police agencies first began experimenting with the technology and developed the first working systems. No sooner had radios been installed in police cars when hobbyists were building receivers to listen in on the action. Police radio listening was declared thrilling by *The Los Angeles Times* ("Police radio calls give real thrills to fans", 1931). That same year. the *Times* reported

that radio listeners were actually showing up at crime scenes for a first-hand view of all the action. ("Public tunes in on crime wave, new radio contrivance develops police call fans, who often beat police to trouble scene and also proves boon to whoopee-makers", 1931). Things didn't change much in the decades that followed. In 1990, high school teacher and police scanner fan Joe Braganza described ("More Scanner Buffs are Eavesdropping", 1990) what may be the essence of his interest in the hobby when he spoke to *The New York Times*:

> From the radio firsthand, it's almost like being there. And I find what I hear just very hard to believe and almost kind of difficult to live with. People just can't reason with each other without the help of a gun or a knife. (p.40).

History of Police Radios

Police radios were a major advancement that would change the way law enforcement operated and how it was perceived (Battles, 2010). Radios first emerged as one-way systems in the 1920s. New York City was installing receiver sets in its cars and boats in 1922 (Gernsback, 1922, p. 95). The next year Los Angeles conducted experiments using a central one-way radio to direct squad cars (McMillan, 1923). It was one of the earliest tests by law enforcement, and as Strachan McMillan reported in *Radio Digest, Illustrated,* the tests were successful. A group of newspaper reporters who were asked to serve as evaluators for the experiments, said if radio was to become a "permanent adjunct in the city's criminal-hunting business, crooks and other law breakers will be apprehended in minutes, instead of hours and days after the commission of a crime." (p.3).

Also in 1923, Detroit police used the appropriately named KOP radio to catch car thieves (Huntley, 1923) in a test of the new technology. An officer reported that just after tuning in to KOP with his newly installed receiver, he heard a stolen car report. The officer spotted the suspect car, and the alleged thief was soon in custody. Detroit Police had been experimenting with radio in the early 1920s and suffered repeated failures getting consistent reception in cars. In 1928 though, Detroit patrolman and radio buff Robert L. Batts developed and successfully tested a receiver that worked around the city. ("The Prohibition-era origins of the police radio", n.d.).

The notion of using radio to catch criminals was on the minds of many in law enforcement in the 1920s (Sullivan, 1924). The police chief of New Orleans saw the potential when he called for a national network of radio communication to keep "a jump ahead of criminals" (para. 2). Guy R. Malony noted that rumrunners were already using radio in the Gulf of Mexico. He called for a radio system in every major city, a dream that would be quite far along a decade later. According to the Institute of Electrical and Electronics Engineers, Prohibition was at least partly behind the development of police radio technology (Noble, 1962; Poli, 1942). The ban on alcoholic beverages proved a boon for gangsters and moonshiners, and police needed a way to respond more quickly to reports of bootlegging.

At least one news organization was quick to recognize the value of the police radio in those early days. WGN radio, owned by the *Chicago Tribune*, put down money and the use of WGN's broadcast signal to bring radios to Chicago police cars ("Police use radio to hunt criminals", 1929). The experiment proved to be a success, except that

the police calls could be heard by anyone listening to WGN, and the station became quite popular at the time. But it did not always work as intended. In one instance, according to the Tribune, a burglar quickly fled after overhearing police as they worked to find him. Even so, the city was sold on the idea and soon worked to create a radio system that operated outside the broadcast band. Police radio monitors would later become common in many newspaper and broadcast newsrooms (e.g., McManus & Berkowitz, 1997).

In the early 1930s, some police departments began experimenting with two-way police radios, seeing the potential benefit of allowing officers to directly communicate with dispatchers (White & Dendstaedt, 1937). The dream became a reality in December, 1932, when federal regulators issued the first two-way radio license to the city of Bayonne, New Jersey. Just four police departments had installed police radios in 1931. By 1937, the total number reached 2,000 (Poli, 1942). That same year, 226 cities were operating two-way transmission systems in the United States. Soon cities across the country were installing, or at least planning, police and fire department radio systems. Statewide networks were formed. In 1940, portable radios were introduced for officers on a walking beat. Plans were even made – and hotly contested – to put a fire department antenna atop the Washington Monument ("Fire department radio atop monument opposed by society", 1939).

Police radios appeared to be making a difference in the battle against criminals, at least according to RCA. The radio manufacturing giant held a symposium in Philadelphia to extoll the virtues of the new technology. ("Police in RCA forum attest to radio's value to crime war", 1937). Those who attended the gathering heard from police who said

radios saved money by decreasing response times, therefore discouraging crime. There were tales of police radios helping to save a kidnapped family, preventing a train crash, and catching a burglar in the act.

It wasn't just RCA touting the value of police radios. The Federal Communications Commission reported that 567 police radio systems were in operation as of 1937. ("Modern changes in radio help police", 1937), In a progress report, the International Association of Chiefs of Police said radios had become a vital assistant for officers. Newspapers of the era carried many accounts of police radio success, some even describing radio operators in heroic terms ("Ready and waiting", 1932). Radios were not foolproof, for sure. Criminals occasionally took advantage of the technology, including a Philadelphia burglary ring that used radios to evade capture (Karafin, 1959).

Today many police cruisers and fire trucks are equipped so dispatchers can send textual information directly to a mobile computer terminal (Zahabi & McCollum, 2019). Public safety workers also have sophisticated handheld radios, including some that use digital encryption to block public access (Gest, 2019). The digital technology that fueled the growth of the cellphone is also evident in modern police radios. Some include features like wireless microphones, built-in cellphone technology and increasingly sophisticated digital transmission capabilities that allow more users on crowded radio spectrum.

The cultural impact of police radio is easily underestimated. Cohen (2012) argued that it "laid the groundwork … for mobile communication to devices that are so common

today." (p. 171). In many ways, radio changed the face of policing in the Depression years (Battles, 2010):

> Police radio symbolized excitement, speed, efficiency, centralized command of geographic space, the promise of inevitable apprehension, two-way communication, masculine prowess and modernity itself. So exciting was police radio that Michigan State Police, among the earliest to develop radio for policing, celebrated their ability to conquer space and time by invoking that symbol of modern adventure "calling all cars" (p. 1-2).

In her well-researched book on police culture, Kathleen Battles suggests that police radio should be viewed within the wider lens of radio as a whole. The change in policing brought about by squad cars and police radios were reflected in programming during the Golden Age of Radio. Shows like the very popular *Dragnet* "worked to construct and enhance the authority of the police as modern professionals," (Battles, p. 232) Radio cars also did much to enhance the image of law enforcement.

Early Listeners

We don't know much about the early hobbyists who began eavesdropping on police radios as they emerged in the 1920s and 1930s. We do know from radio magazines that hobbyists were building receivers or buying them from a variety of vendors. The December,1930, edition of *Radio-Craft* included instructions for building a ""Police" Short-Wave Set for Automotive Use" (p. 344). Writer, inventor, and innovator Hugo Gernsback published *Radio Craft* magazine along with *Short-Wave Craft*, which would

later proclaim that police radio receivers opened a "Pandora's box" promising listeners "the thrill of your life" (Doerle, 1935, p. 330). Newspapers such as *The Los Angeles Times* also recognized this emerging practice, citing crowds of people drawn to crime scenes after hearing about them on police radios ("Public Tunes in On Crime Wave", 1931). The *Washington Post* noted in 1923 that even criminals had become aware of the technology ("Police radio calls frightens auto thief", 1933).

Not only did the public catch on quickly to the idea of listening to police radios, but they also knew it was a source of excitement. That sentiment was colorfully expressed by Bouk (1933) in *Radio Fan Fare*:

> Broadcasts to patrol and squad cars are relatively high in entertainment value. Police announcements have voices that would shrivel a crooner, and the real-life dramas condensed into prosaic announcements provide cooling etheric breezes after the hot air on the broadcast band. Besides, we are so many generations removed from Nero's amphitheater and this second-hand blood and gore, in the safety of our easy chairs, is piquant and delightful. (p. 21)

Just as modern police radios have evolved over decades, the technological sophistication of receivers and scanners has similarly advanced. Magazines and newspaper accounts from the late 1920s through the 1930s show that listeners worked quicky to catch up with advancing police radio equipment, adopting improved receivers, antennas, and mobile radios. This progress would continue, with the development of increasingly sophisticated ways of sharing what they heard with simple one-way radio

broadcasts, and two-way transmissions via amateur radio. Eventually display pagers, computers, email, social media, and text messaging were used to share scanner reports among hobbyists (e.g., McManus, 1996; Kimball, 2020).

The roaring twenties were a time of great technological change. The automobile and airplanes were now mainstream, and inventions like the washing machine and the refrigerator made middle-class life easier. Radio hobbyists flourished during this time and were quick to seize the opportunity to build their own devices to listen in on shortwave, amateur radio, and the new police radios that went into service in the latter part of the decade.

Police radio listeners could choose from commercially built radios such as the Bud Radio Police Thriller, a plug-in device that worked with existing broadcast radios. Just $3.50 provided listeners with the "thrill to get police calls and perhaps witness a daring robbery or pick up some other event which never appears in print," ("Every Dealer and Jobber Can Sell the New Bud Police Radio Thriller", 1931, p. 4). For the do-it-yourselfer, *Radio Craft* published plans for the "Tiny Mite," a one-tube converter box that not only received police calls, but also provided access to amateur radio operators and pilots ("The Tinymite 1Tuber Rolls 'em In", 1933 , p. 281)

Early police radio receivers did not scan a variety of channels, they were more like AM/FM radios with a tuning knob, as the Bud Radio noted above demonstrates. Because listeners had to hunt around for a police call manually, they were less likely to hear as many different conversations as is possible with modern scanners. Other radios were subsequently developed that could receive just one channel, to constantly monitor a

single police or fire frequency. Multiple single channel monitors could be used to monitor additional channels.

From the 1930s through the 1950s consumer-grade police radios essentially followed the evolution of the broadcast radio. Sets got smaller, sleeker and lighter. But they did pretty much the same thing, allowing listeners to tune around different frequency bands hoping to hear something interesting. The invention of the transistor allowed for smaller, battery powered sets that resembled transistor broadcast receivers (Bohr, 1958). It wasn't until the 1970s that technology began a dramatic transformation.

I've used more than one term to refer to what we would today call a scanner. Early radios were not capable of scanning, so they are referred to as police radios. Public safety radio is a generic term for both kinds of radios. In the 1970s, the hobby expanded with the invention of scanning radios capable of monitoring several channels at once (Linton,1978). These early scanners, made by companies such as Bearcat and Regency, relied on crystals to tune in specific channels. I recently owned a small handheld bearcat scanner equipped with six crystals. Adding new channels meant buying new crystals. The electronic DIY kit giant of the era, Heathkit, made a build-it-yourself scanner for those who preferred the homebrew route (https://www.nostalgickitscentral.com/heath/73-index/articles/Heath%20GR-110%20Scanning%20Receiver-11-73.pdf). Many of the scanner listeners who participated in this study, including Dave Triska, still have some of their old crystal radios and have a fond reverence for their old pieces of gear and the memories they represent.

The early crystal-controlled radios were replaced by models that electronically generated receiver frequencies and would allow users to scan hundreds of channels. Scanners, along with Citizen Band Radios, experienced a cultural moment in the 1970s (e.g., Barda, 1972). C.W. McCall's 1975 novelty song "Convoy" and movies like "*Smoky and the Bandit*" brought these radios to popular culture. In 1976, the *Miami Herald* reported that 200 scanners had been sold locally as Christmas gifts, describing scanners as "Better than [a] soap opera," (Long, 1976) ."Everyone seems to be listening in on scanner radios," (1982) declared the *Tampa Tribune* in an advertorial that suggested a scanner would make a great Christmas gift.

How Scanners Work

In its basic form, a scanner is not unlike the AM/FM radio in a car. The big difference is that scanners constantly check on a number of channels or frequencies, stopping on one where there is conversation. When the conversation ends the scanning resumes unless the listener locks on to a particular channel. Modern digital "trunking" scanners are more complicated because digital police radio systems convert conversations into computer code and place them on whatever channels happen to be available at the time. As a result, most newer scanners tend to be more difficult to set up. It is also important to know to which frequencies are used by public safety within the range of the scanner. For decades hobbyists would produce radio frequency guides that were distributed at radio shops and electronics stores such as Radio Shack. Like any radio, scanners require an antenna. Built-in antennas can work fine, but outdoor external antennas are almost always superior.

Older scanners need to be programmed with frequencies the user chooses to monitor. Newer scanners can still be programmed, but many can also automatically search and find nearby active channels and automatically store the frequencies. Scanners operate just like a conventional radio, with a switch and volume control and a frequency display. When the scanner finds an active channel, it stops scanning and plays what is coming in. Users can block out certain channels broadcasting tone or static that needlessly tie up the scanner. Just like cellphones, handheld scanners have become so small they fit in a pocket.

As police radios continued to grow in sophistication and capabilities, it was up to listeners – and scanner radio companies – to keep up. The emergence of digital radios in the 1990s allowed more users to use fewer channels by routing conversations to available channels. (e.g., Kunavut, 2014). This new trunking technology, with several different designs on the market, made it more difficult for scanner listeners to follow conversations. Radio manufacturers eventually developed solutions for the added layer of complexity, which also added to the cost of scanner units. This cat-and-mouse game continues to this day, as new radio technology continues to evolve, and scanner companies work to circumvent barriers to listening.

The Radio Hobby

When discussing radio hobbyists, it is important to note that they are not a homogeneous group. Most accounts of early radio development note that experimenters and hobbyists played a major role in the diffusion of radio technology. Among these

early hobbyists were people we now call amateur radio operators, who typically engage in two-way radio conversations on designated frequency bands and are granted licenses by the Federal Communications Commission (Laport et al., 1981). Next are the shortwave listeners, who focus primarily on long-range stations such as Radio Moscow, the BBC or Vatican Radio. Finally, there are scanner hobbyists who prefer to 'monitor' law enforcement, fire department and other public safety radio channels (Worth, 2003). These groups are not mutually exclusive, and some hobbyists participate in two or more of these activities.

Shortwave Listeners

One of the first shortwave radios I owned was a Lafayette KT-135 Explor-Air tube radio that I built from a kit. Listening to it was a journey through squeals, static, pops and crackles, and occasionally a shortwave station. Radio Havana was one of my favorites because it came in clearly and the station's views on America were so radically different from what I had been taught. Listening to the shortwave is like traveling the world, from Radio Luxembourg to the Voice of America. The goal for shortwave listening is typically receiving stations from as far away as possible, or "DXing" (Nevradakis, 2013, p. 68). Mohammed (2019) notes that many histories of shortwave radio overlook the impact it had on globalization. The digital revolution has also impacted shortwave radio. In the early 2000s the BBC dropped terrestrial radio in favor of web streaming in North America, Australia, and New Zealand (Anderson, 2005). In fact, shortwave broadcasting appears to have been in decline for at least two decades as

of this writing. In 2010, *Radio World* (Careless, 2010) lamented a sharp drop in listening in many parts of the world.

Amateur Radio

Amateur radio existed well before the advent of police radio. According to Maxim (1929), radio amateurs appeared in the first days of wireless transmission, beginning with the use of morse code and primitive tube transmitters. The Radio Act of 1912 legitimized this group, requiring amateur operators to pass a test to get a government license. Maxim founded the American Radio Relay League in 1914 which remains the largest amateur radio group in North America with 160,000 members (Pepitone, 2020). The ARRL provides a voice for the interests of so-called "ham radio operators," by fighting for frequency spectrum, lobbying over license requirements, and facilitating self-regulation in the amateur community. Squier, (2003) notes that amateur radio operators provide important services, particularly during times of crisis when the normal communications infrastructure is over-stretched or damaged, concluding: "there can be no question that amateur radio enthusiasts do serve the public" (p. 65). In addition to emergency service, ham operators provide communication at public events and between soldiers and their families (e.g., Coile,1997; Maxim, 1929). In 1924, Commerce Secretary and future President Herbert Hoover wrote of the importance of amateur radio operators in the development of radio technology: "Twelve years ago the amateur boasted to his friends of his communications over a few hundred miles. Today our amateurs, to whom much of our radio progress is justly due, nightly send messages across the Atlantic Ocean" (Winters, 1924, p. 472).

Modern Amateur radio operators are still licensed by the Federal Communications Commission and must pass a technical knowledge test to qualify for various levels of licenses. For many years, licenses also required learning Morse Code, which was a barrier to many potential hobbyists. That requirement was dropped for all classes of license in 2006. Perhaps the most common view about amateur radio operators is that they are older men who build 'ham shacks' in their basements. There certainly is some truth to that stereotype, but ham groups also serve as a kind of emergency communication network that can be called to action when needed (Squier, 2003). The government licenses amateur operators to assist during disasters, something that has become increasingly important as many severe weather events have occurred in the United States (http://www.arrl.org/what-is-ham-radio). Many amateur radio stations can operate on batteries, providing emergency operation when power has failed and when police radios and cellular service are down. Amateur radio enthusiasts frequently adopt discourses of preparedness and catastrophe (Squier, 2003). There are events to prepare for disasters such as "field day," when ham operators take their radios off the grid for a weekend to simulate disaster conditions. The discourse of catastrophe is also practiced through the repetition of stories where amateur radio operators have helped out during a disaster. Collectively these discourses help form the identity of ham operators.

The notion of amateur radio operators as public servants during disasters and participation in community events is has been consistently promoted by the American Radio Relay League. Its member magazine *QST* has been in print since 1915, and chances are good that in nearly every issue there will be stories of amateur operators

lending a hand. In 1957, for example, *QST* told the story of amateurs who performed "outstanding service in emergencies at opposite ends of the nation" ("Malibu and Merrill's Landing", 1957, p. 53) A wildfire struck Malibu, blackening 20,000 acres. On the other side of the country in New Brunswick, Canada, hams helped emergency workers dealing with a B-52 that had crashed in the woods.

It is interesting to note that rather than mention the names of the amateur operators involved, the story instead mentioned their individual call signs. This is not uncommon within the strong culture of the amateur radio hobby, which also uses employs certain code words or numbers. For example, "QRM" means radio interference and sending someone "73s" equates to best wishes. Amateur radio even has a code of conduct that calls on amateurs to be considerate, loyal, progressive, friendly, balanced, and patriotic (https://www.arrl.org/amateur-code).

It is important to remember that while scanner listeners and ham operators may have similar interests, they are distinct groups. Since scanner listeners don't typically work to provide two-way communications during disasters or actively pursue opportunities to directly serve others by serve others by, say, running communications at a community event, it is less clear that what they do is a public service. This research demonstrates ways in which some scanner listeners can, and frequently do, serve the public good.

Emergence of Radio Clubs

Maxim (1929) noted that radio clubs have been around almost as long as amateur radio. One of the earliest clubs was the Junior Wireless Society, formed in 1909. The group changed its name in 1911 to the Radio Club of America, and still exists today. Also, around that time, the Wireless Association of America produced the "Wireless Blue Book" in 1909, listing amateur stations active at that time (Kreuzer & Kreuzer, 2018). Experimental radio clubs and college stations emerged as well. Members would build radios, exchange radio frequency lists, evaluate gear, and share stories of long distance listening or two-way transmissions.

There is very little information about police radio clubs if they indeed existed in the first few decades of radio. There are magazine and newspaper reports of listeners sharing information with journalists (See: "Radio traps dogs", 1927) and radio magazines that described how to build police radio sets. However, except for ham radio groups that discussed police radio traffic, I have not been able to locate any clubs specifically devoted to public safety listening until the 1970s. It seems likely that some public safety radio listeners also belonged to shortwave or amateur radio clubs in the early decades of radio. Writer Jerry Callum (1988) answered the question "why have a scanner club?" for *National Communications* magazine. Callum said a lack of good information about scanner frequencies prompted him to form the All-Ohio Scanner Club. The club caught on quickly and he soon began publishing a newsletter and started sharing information with national magazines. Just like amateur radio operators, bowlers, hikers, and probably

most special interest clubs, it seems people who have common interests simply enjoy sharing their hobbies with others. Today a quick search of social media reveals dozens, if not hundreds of scanner groups around the country.

Other Radio Sources

Around the same time that police radios first emerged, fire departments began installing radio equipment. By the early 1930s, local newspapers across the country wrote about things like installation of new radio gear ("Fire, police signal men at meeting", 1932), the successful use of radio technology ("Radio gives service to fire department", 1938) and a dispute over placing a fire department antenna on top of the Washington Monument ("Fire department radio atop monument", 1939). Most of the scanner listeners interviewed for this project don't just listen to police; they also monitor fire departments and other agencies.

From the Skies

Aviation radio, which evolved from telegraphy to two-way spoken transmission by the end of World War I (Kendal, 2011), is a favorite among many scanner enthusiasts who enjoy sharing their stories. Listener Dave Triska likes to listen during an air show. "It just gave it a whole different meaning when you can listen, let's say, at the air shows what the pilots are talking about, the Thunderbirds and Blue Angels… and I still do that today." They are rare, but the occasional emergency call from a plane can be very dramatic. In 1989, a contractor sitting on his front porch in Los Angeles noticed a plane that appeared to have engine trouble (Moran & Mathis, 1989). Listening to his scanner,

Richard Rohly heard the pilot describe his efforts to set the plane down on an Interstate highway. Instead, the experimental aircraft struck two houses before crashing into a third. The pilot walked away and Rohly heard it all. Scanners are also an important tool for the citizen investigators who routinely monitor the traffic outside Groom Lake, otherwise known as Area 51 in Nevada (Paglen, 2006).

NASCAR

Some scanner listeners find the behind-the-scenes communications during NASCAR races to be particularly fascinating, including participant Jenny Taylor.

> It's interesting, and I mean some of the stuff is actually really comical. You know what I mean, and you know you can tell when things are getting heated and such like that. It's really fun when they're getting rated …. Take the checkered flag or something like that, how they're closing in on the other racers to like pass right at the last minute … That's a lot of fun, kind of adds something to the whole race Doesn't it? It does. Yeah, a whole different perspective.

NASCAR operates a scanner mobile app so fans can listen in on drivers and pit crews (https://www.nascar.com/scanner) and Uniden makes several scanner products and headsets for racing fans.

Citizen's Band, FRS & GMRS

Another form of legal radio use is the CB or Citizen's Band, which became somewhat of a pop-culture phenomenon in the 1970s. Unlike amateur radio, these 40-

channel radios do not require a license and are probably best known for their widespread use by truckers.

Citizens can also take advantage of an alphabet soup of radio services with less commitment than ham radio. The FRS, or Family Radio Service, also does not require a license, and is intended to provide two-way communication over short distances (https://www.fcc.gov/wireless/bureau-divisions/mobility-division/family-radio-service-frs). The difference between FRS and traditional CB is that FRS uses clearer-sounding FM radio signals. GMRS, or the General Mobile Radio Service is similar to the FRS, although signal repeaters can be used to increase the range of two-way communication. Systems are licensed to an individual for use by their immediate family members. Finally, MURS or the Multi-Use Radio Service is the lesser-known unlicensed service. It allows 5 channels for use by small, hand-held radios. Virtually all U.S. radio systems and devices are regulated in some fashion by the Federal Communications Commission.

Incident Notification Services

In the early years of the digital age, some scanner listening groups created electronic networks using alphanumeric display pagers to update members on the latest breaking news heard on the scanner (McManus, 1996). Some networks continue to operate today, sharing what might be called "news feeds" via social media, pager networks, email, so-called incident reporting websites such as FlagScanner.com, and many more. One of the most popular Twitter feeds in Los Angeles in 2020 was @LAscanner, which featured reports on incidents right from the scanner mixed with occasional commentary and news-related re-tweets (Shenkin, 2020). Even the

government has even gotten in the notification business, allowing citizens to subscribe to warning notifications in the event of a wildfire or other disasters (e.g., Chen et al., 2016; https://coconino.az.gov/2612/Emergency-Notification-System).

The Gong Club

Jersey City's Gong Club, operated by volunteers, provides canteen service to firefighters as they are tackling major fires or other incidents. Founded more than 70 years ago, the Gong Club began sharing fire call information over two-way radio back in the late 1970s. It would go on to operate Jersey City Notification, one of the first incident services in the region, according to Gong Club member Jim Carrey. "Well, this created like a center of communication. So, uh, when our field unit went out on a run, uh, people could converse with it and see if there's any additional supplies needed at whatever scene they were operating at, whether it was a fire or another emergency of some type." Jim Richardson started listening to the Club as a teenager. He said the Gong Club later helped inspire him to create Mountain News Net.

Pine Cam

Many of the kinds of things scanner listeners hear are now shared in other ways, including the web. Neighborhoods seem to be an ideal starting point for the sharing of information. One example of this can be found in the tiny city of Conifer, Colorado, in the mountains west of Denver. In 1994, Denver Television assignment editor Wayne Harrison owned a home in Conifer where he launched website with a live webcam appropriately called Pinecam.com. The site grew to become a neighborhood hub where locals could post things, including what they would hear on the scanner. "They listen for

fire threats and things like that," Harrison said. The site became so popular he wound up holding classes for his neighbors so they could better understand what was being shared over the scanner. The site remains active today.

FlagScanner.Com

Freelance videographer Chad Black operates FlagScanner in Flagstaff, Arizona. He has a group of volunteer "reporters" who share what they hear on the scanner, and he posts press releases, and provides a "nightly incident recap" via email. "We have been doing this for 12 years and we have a breaking news hotline, and we have a breaking news email. And if there's more than two cop cars outside [somewhere] then I'm going to expect the hotline to ring," Black said. The site is labeled "Flagstaff's breaking news and incident log"(www.Flagscanner.com). One day in October, 2022, Flagscanner had numerous reports with headlines such as "injured hiker," "accident on I-40," "car vs. pedestrian accident," and "fight in progress." Flagstaff does not have many choices for local news. The city has a small newspaper, a public radio station with news, and a prolific one-man-band newsman at the local country station. Most of the incidents on FlagScanner don't get reported anywhere else, so for some it may indeed be a valuable source of information. Black sells ads on the site, and one day hopes to earn a profit.

Bakersfield Scanner Groups

You may not think of Bakersfield, California, as a hotbed of breaking news, but scanner listeners seem to be quite interested. There are a number of scanner related groups in Kern County, including Kern County Scanner, Kern County Scanner Gone

Wild (yes, that is a real group), and 661 Scanner and Scanner Chatter. Micayla Elliott-Smith, a former local news producer, said she is active in three local scanner groups. For her, it is a safety issue: "The cops don't have any power anymore. I mean they're spread thin." The county also has two or three incident services that provide live video streamed from crime scenes. All of these groups can be found on Facebook, although most are private.

5280.com

In Denver, Scott Cochran currently operates the website *5280*. The site is similar to Mountain News Net, except it features pictures of breaking news incidents. For him, running the site is fun, and he enjoys competing with others to get the story first. "I have my ways, man. I know enough people that are non-law enforcement but can still give me the details…that's why I like blowing people away with the info. They're like how did you know that?" Cochran is also a member of Mountain News Net, and the two sites often share information.

Municipal Incident Notification Services

Even the government is in the notification business, allowing citizens to subscribe to warning notifications in the event of a wildfire or other disasters (Chen et al., 2016). Just as scanner listeners share information on emergency incidents, municipalities, counties and state governments around the United States have set up systems using text messages and direct emergency warnings to cellphones to alert citizens of impending danger or important community information. Where I live in Coconino County, Arizona, citizens are encouraged citizens to sign up for incident notifications on their phones

(https://coconino.az.gov/2612/Emergency-Notification-System). I have received weather and flooding updates, fire alerts and similar emergency information using this service.

When Hurricane Sandy came ashore in 2012, Hughes et al. (2014) found that most of the public safety agencies within a 100-mile radius failed to make much use of notification technology. Among those that did use notification services, messages "differed between fire and police Departments and across media type" (p. 1505) and efforts were underway to explore standards for "appropriate public communication." Just as the Mountain News Net has an established format and content standards, municipalities are taking similar steps.

Citizen.com

Silicon Valley seems to see the upside of listening to scanners. One of the most controversial incident notification services is Citizen.com. "Where people protect each other" is the slogan in bold letters on the company's website. Calling itself a "personal safety network with access to real-time 911 alerts and instant crisis responders," Citizen provides an array of services from real-time alerts to "personal protection agents," and live monitoring of your location for potential hazards. The Citizen app is an evolution from an earlier version called Vigilante, which, according to NBC News, was removed from the Apple App Store over fears that it could incite violence (Ingram and Farivar, 2021). Known for pushing boundaries, the rebranded Citizen app is still attracting a fair amount of attention.

One of the key services Citizen offers is 911 alerts, most taken straight from police scanners, and relayed to users (Bertoni, 2019). CEO Andrew Frame, a former hacker, told *Forbes* "we've opened up all this 911 data and given it to the people" (para. 4). That, of course is subject to interpretation, as scanner listeners have had access to the same data for decades. The difference, apparently, is how the data are used within the app to catch the attention of tens of thousands of users. There is strength in numbers, and Citizen has thousands of members who may be able to add details to a particular incident, or report things that have not yet reached the scanner. The company's blog tells of how the app helped find a missing man, how another customer promotes community safety, and how an alert "premium" Citizen member revived an unconscious man thanks to video coaching from one of the company's "Citizen Agents."

Citizen is now operating in several big cities scanning "hundreds of public safety radio bands 24 hours a day" (Kelley, 2019, para. 5). With the help of human workers, the app filters out items of less importance, and sends out "short factual alerts to everyone within a quarter mile" of an incident (para. 5). Items are updated as more information is made available. Exactly what level of verification is performed on the scanner reports is unclear. WRTV in Indianapolis investigated the accuracy of Citizen's 911 alerts and found, like many incident notification services, the reports are not verified by law enforcement agencies (Wilkerson, 2022). Not long after the app arrived in Indianapolis, the Metropolitan fire department said it had to contact Citizen several times to correct misinformation. WRTV reported that less than a day after a deadly mass shooting in Uvalde, Texas on May 24, 2022, a Citizen alert falsely reported that seven people had

been killed in a shooting in Indianapolis. A company representative told WRTV that Citizen takes errors seriously, and that the mistake was corrected.

Compared to Mountain News Net with about 500 members, the tens of thousands of members of Citizen have the ability to make significant contributions to public safety, but at the same time could present a serious risk. Citizen and apps like it are a logical next step from smaller sharing services, but one might wonder whether the people – or perhaps technology—that decides what alerts to send out on the Citizen app have the same level of experience as the citizen dispatchers who control, for example, the Mountain News Net feed. Such is the inherent risk of sending out tips – the initial reports straight off the scanner.

PulsePoint

One of the more popular public safety apps has a clear mission: saving lives. Touting the slogan "Building Informed Communities" (https://www.pulsepoint.org), PulsePoint links local fire and emergency medical service providers with the location of nearby defibrillators. Launched in 2011, PulsePoint also alerts off-duty responders and CPR-trained citizens so they can quickly respond to victims of heart attacks right along with first responders. PulsePoint has two apps. *PulsePoint CPR Respond* notifies users of heart attacks, but also reports other emergency incidents, much like Mountain News Net would, although it provides a map-based display. A second app, *PulsePoint AED*, helps users find the closest defibrillator machine. First responders like Eric Hurst with South Metro Fire Department use the app, which he says is helpful in his work as a public information officer. PulsePoint operates as a non-profit organization.

Mountain News Net

Mountain News Net was created shortly after founder Jim Richardson moved to Denver in the early 1990s. Richardson said he and a small group of about scanner buffs formed the group at a coffee shop. “There was probably five or six of us initially, mostly those involved in law enforcement or dispatchers or public safety in one way or another. We literally met at a Village Inn to say, this is a cool concept. Do we think a radio system would be supported in Colorado?”

As it turns out, there was interest and within a few years Mountain News Net grew to about 500 members. Richardson said the News Net was patterned after incident reporting systems in the Eastern United States, but Richardson wanted it to be broader.

> Those systems were primarily, and still are primarily, focused on fire. If we're going to make it successful out here, we've got to do it with a lot more than just fires. That was the beginnings, I want to say probably about late 1990, early 1991.

Initially, a small group of dispatchers monitored radios from locations around the state and also received calls from a tip line where other listeners could report breaking news incidents. To share incidents with their members, Richardson considered using two-way radios, but the mountainous topography was not well-suited for radio. Instead, the dispatchers employed what was then an innovative new tool:

> “The initial platform was alphanumeric pagers. I actually don't even remember the name of the company at that point, but it was a local Colorado-based paging company. I want to say that was the beginnings of what we now know as Mountain News Net, early 1992 … Interestingly enough a terminal actually input

> the pages. It was called an Alphamate, and it was basically a keyboard, a fairly large, stand-alone keyboard with its own internal modem. You would plug it into your phone line and that's how you sent the pages.

Several Alphamate terminals were given to Mountain News Net dispatchers and partners. During my time on the assignment desk at KCNC, Richardson gave the station an Alphamate to share reports with the Mountain News Net dispatchers. For competitive reasons, KCNC did not share every breaking news report with the News Net, but we did share incidents when public safety was at risk. Looking back on those days, it is striking how similar the Mountain News Net feed was to Twitter.

The system's pagers such as the Motorola Advisor released in 1990, offered a small monochrome LCD screen that could display four rows of 20 characters (IEEE, https://spectrum.ieee.org/the-consumer-electronics-hall-of-fame-motorola-advisor-pager). Mountain News Net messages had to be concise and frequently used abbreviations, as they still do today.

Most, but not all, of the material distributed by Mountain News Net could be considered breaking news, the term widely used to describe urgent, event-oriented news (Saltzis, 2012). For decades, television news consultants including Frank N. Magid Associates encouraged local stations to show their "commitment to bringing the viewer breaking news, as it happens," (Liseblad, 2018, p. 175). Stations often do just that. News crews are quickly dispatched to provide live coverage that can last hours longer than the actual breaking news (Casella, 2013).

While not serving as a primary source of information at KCNC and other Colorado news outlets, Mountain News Net dispatches were an important source of tips. The group agrees that its dispatches "should be treated as preliminary and should be verified," said Jim Richardson, although he said the team of News Net dispatchers diligently works to get the facts right before sending it out on the member feed. According to group members, verification methods are based more on experience as a listener, rather than journalistic-style fact checking. Richardson said the group has a large group of contacts qualified to assess what is heard on the scanner before deciding whether to share the information.

While the group's work may be useful to journalists, it does not exist solely for the news media. Mountain News Net was created by citizens for other citizens. Most of the scanner listener groups I located around the country are not in the business to make a profit – although some are experimenting with ways to generate revenue. Mountain News Net charges its members $30 per year, and news media members pay more. Richardson said the money is used to cover costs.

When Things Go Wrong

"We're in front of 771 Boylston street, two explosions, we have a -multi casualty injury incident here, we have at least a dozen injuries" (Broadcastify, 2013). Shortly after explosions ripped through a crowd of runners and spectators during the 2013 Boston Marathon, the radio waves were flooded with reports like the one above from public safety officers arriving at the scene. The blasts were caught live on camera, but scanners buffs would learn a lot about the rescue efforts and investigation using their radios.

Unfortunately, some of what was broadcast was misinterpreted and shared by online sleuths. (Tapia & LaLone, 2014) Those reports were, in turn, picked up and amplified by national media organizations and social media. As a result, at least one man was falsely accused of being a suspect in the case.

Three people died and more than 260 injured when the pair of bombs were detonated that afternoon on April 15, 2013 (Seelye, 2015). Boston's fear would last longer than that day, as a manhunt continued for the suspects. During this time, users took to Reddit to share thousands of photos, video and other evidence to help solve the crime (Montgomery et al., 2013). Reddit "acted as a real-time information hub," (Nhan et al., 2017, p. 348) and one of the items shared was an audio clip from the police scanner naming at least one possible suspect (Madrigal, 2013). According to the *Atlantic*, a missing college student named Sunil Tripahti was named as a suspect in a tweet. The post was based on the scanner clip, even though Tipathi's name could not actually be found in the clip. Tripathi was innocent, but that didn't matter as the "informational cascade was full on" (para.12). The tweet would soon be shared tens of thousands of times.

While it might be seen as a good thing that law enforcement, social media users, and the media were all working to solve the case, once again it also serves as a reminder to verify before reporting. Police scanners, Twitter, and Facebook are tools; people must make the decisions about how to use them. The Boston Marathon investigation showed that the information landscape had indeed changed, and that breaking news situations can be particularly vulnerable to the irresponsible sharing of incorrect information.

The bombing aftermath seems to give credence to the argument that scanner listeners should not be sharing reports of what they hear, or at least not with the general public. And that is not an uncommon view. David Zorn, News Director of KAFF Radio in Flagstaff, Arizona, has a particular dislike for some who share what they hear on the scanner.

> when you have people that are behind the scenes that don't have a journalism background … don't have the common sense ... that's where we get into problems. If they know and realize that whatever information you put out could be harmful and they have a common sense about it and then that can be actually pretty good and useful.

Zorn recalled an incident in Yavapai County, Arizona, which demonstrates how simple it can be for a scanner-sharing service to make a serious mistake.

> A Yavapai county deputy, who was shot and killed down in Cordes Lakes …there's a Scanner service down in Yavapai County with a lot ... of followers. They said that the sergeant was dead a-half an hour before YCSO [Yavapai County Sherriff's Office] could make the call. I have a big problem with that, um, and again that's when you have people that are behind the scenes that either don't have a journalistic background or don't have the common sense of one, that's where we get into problems.

Zorn said he can't afford to take the risk of using unverified scanner reports, "Especially if you're a known or trusted broadcast entity you're putting your reputation on the line, " he said.

News agencies are already faced with many challenges during a breaking news situation that scanner reports only complicate. One that comes to mind is an incident I followed as it happened (not using a scanner) in Tucson back in 2011. Arizona Congresswoman Gabby Giffords was one victim in a mass shooting during a meeting with constituents at a supermarket. National Public Radio erroneously reported that she had died in the shooting. Other news agencies picked up the story from NPR, and the inaccurate report was also spread extensively via social media (Silverman, 2012). A full year later, reports that Gifford died that day were still being shared on Twitter.

Reliability of Scanner Reports

As with any form of media, it is advisable, at least to some extent, to question what you hear. This is very true for scanner information. From my experience in every newsroom where I worked, the policy was always to verify before broadcasting anything heard over the scanner. I can recall listening to what sounded like a plane crash, for example, only to learn that it was a drill. The journalists I spoke with for this project concur that scanner information can serve as a tip or a warning, but the actual facts are usually still unfolding when an incident is heard over the scanner. The scanner is one source, but not the final word. This was aptly demonstrated during the Boston Marathon bombing in 2013 (Nhan et al., 2017). Scanner listeners were tweeting inaccurate information during the investigation (Oremus, 2013) including a false report that police had identified two suspects.

Matthew Ingram, chief digital writer for *Columbia Journalism Review*, told *Mother Jones* "In the midst of an emergency, even the police, in most cases, have no clue

what is actually happening" (Weinberg, 2019, para. 8). Ingram said scanner conversations are essentially police or firefighters trying to determine what is happening in a given situation. But this does not diminish the value of the tips scanners provide for journalists. From the days when Arthur "Weegee" Felig chased police calls in the 1920s to the present, scanners remain an important source for discovering breaking news incidents.

Scanner Apps

One of the biggest changes in the scanning hobby in decades came in the 2010s, with the widespread availability of mobile apps that broadcast live (or sometimes delayed) scanner feeds. Apps like 5-0, Broadcastify, and many others eliminated the need to learn the steps to program and operate a scanner radio, opening the doors to potentially millions of new listeners who have no experience in the hobby. The power of these scanner apps became clear during the manhunt for the suspects in the Boston Marathon bombing. According to the marketing firm Martech (https://martech.org/boston-manhunt-pushes-cnn-police-scanner-apps-into-ios-top-ten/), scanner apps became top-ten sellers at Apple during and immediately after the bombing. At the same time, false information was shared on social media, and police blamed a Reddit group that said its source was a police scanner (Madrigal, 2013). When proven to be untrue, the report cast suspicion on scanner listeners, leading *Mother Jones* to ask if the event would eventually kill publicly available scanner feeds (Murphy, 2013).

Some of the participants in this study stream scanner channels from their homes. Bruce Blackburn in Grand Junction said one story brought in 12,000 listeners to one of his feeds.

> March of 2017. And as I recall, that was when a suspected drug runner came through and did a high-speed chase. They chased him all over this valley. Shots were fired. You know, it was one of those three- or four-hour deals. And yeah, a lot of people tuned in to my scanner to listen to it. Everybody in town, … they hear all the sirens going around and the alerts go out and people from all over the country tune in to hear a police chase.

Blackburn streams several scanner channels. He has been working with Broadcastify, which provides the audio servers, for nearly two decades.

In the real-time world of Twitter and other social media, people often just share whatever they hear, which can lead to the spread of inaccurate information. Live scanner apps make this easy, but conversely, they also provide concerned citizens with a way to monitor public safety officers—to hold them accountable for their actions. An example of this occurred at a Black Lives Matter protest in Albuquerque (Colton, 2020). KUNM radio cited a scanner report in which police referred to white militia members as "heavily armed friendlies," (para. 6) and pointed their guns away from militia members. One protestor was shot at the rally, which was organized to call for the removal of a statue of a Spanish Conquistador (Zapotosky et al., 2020).

The now-widespread availability of quality cameras in cellphones seems to have made it much more likely that incidents of police brutality or other misconduct will be recorded. Online scanner feeds provide an easier way for citizens to use police radio to find such incidents while they are still in progress. Apps represent a major change in the way scanner material is distributed, and the implications have not been fully explored.

Storytelling and Belonging

It became evident early in my research that those who share what they hear are commonly members of a club, or group. The literature on storytelling suggests a link between storytelling and belonging. There are multiple studies positing that storytelling helps build belonging, (Ball-Rokeach et al., 2001) inclusion (Zabel, 1991), and civic engagement (Kim and Ball-Rokeach, 2006). The data in this study strongly suggests that belonging is an important part of scanner listening and sharing. When scanner listeners hear a story they wish to share, they are often acting on behalf of a group. The act of sharing strengthens their ties to the group. Mountain News Net is a prime example of this. The group is largely bound together for the purpose of jointly producing a news feed that everyone shares. The power of the group is further amplified when one of the local media outlets uses a story they report, or when Mountain News Net is first to report a story.

In most cases, of course, scanner listeners did not write the stories they share – they are simply sharing what they heard. Everyone shares information; it is an essential act that each of us do every day within our social spheres. What Mountain News Net members choose to share, and how they tell the stories, says much about the group

culture. The formality of the language, abbreviations, or codes used by those who share information from the scanner could indicate, for example, an affinity for creating a news feed in the style of public safety dispatchers. The form of the messages could imply that a particular scanner group takes the sharing of information as a serious endeavor, something that is more than just a hobby. Conversely, others who spontaneously jump into a major breaking news story to share something overheard on a scanner, might be more interested in becoming part of an exciting happening on social media, or perhaps they wish to belong to a Reddit group of amateur cyber sleuths like the ones active during Boston Marathon bombing (Starbird, et. Al., 2014).

Spialek & Houston, (2019), suggest that disaster preparedness communications may foster a sense of neighborhood belonging, which is associated with increased community resilience. Kim & Ball-Rokeach (2006) found that local storytelling networks, including neighbors sharing stories, community groups and local media are "the most important individual-level factor in civic engagement, neighborhood belonging, collective efficacy and civic participation" (p. 411). These studies raise the question that perhaps scanner listening may not only foster belonging but could also be associated with increased civic engagement. Although not a part of this study, a few of the interviewees brought up the role of citizenship in scanning. Denver listener Curt Mann suggests the scanner is indeed a tool that connects people to government.

> Monitoring is the only practical way for the ordinary citizen to know how well governments are doing. You can't go down to City Hall once a week and look at

the records, nobody does that, so this is the only practical way to monitor what they're doing.

Mann and some other participants in this study called themselves and fellow listeners "concerned citizens." By listening to public safety channels and sometimes sharing what they hear, these listeners say they are acting as responsible citizens by helping others keeping track of what is going on around them.

Summary

As shown in this chapter, the development of police radio was a significant turning point in the perception of law enforcement in the United States (Battles, 2010). It also opened the door to an entirely new way of public engagement with police and public safety providers. People were able to listen to police officers as they engaged criminals in real time. This led to a hobby that would eventually draw millions of people around the world.

Some of these scanner buffs formed clubs that began sharing reports of activity picked up on the scanner. One example is Mountain News Net in Colorado, which has produced a content stream of scanner reports for more than 30 years. Local news media use these tips to learn of breaking news events or other stories.

For nearly a century, scanner listeners have enjoyed access to the public airwaves. Scanner listeners who share content sometimes provide a valuable public service and often work with journalists by providing tips to breaking new stories. This study examines what motivates these individuals, how they decide what will be shared. Further,

the research a provides insight into the creation of user-generated content at a time when local news is facing an existential threat. A review of the literature followed by the research questions is next, then by the methodology, findings, discussion and conclusions.

CHAPTER 3

THE INTERNET AND CITIZEN JOURNALISTS

Twitter, Facebook, and other social media platforms have given instant access to eyewitness accounts of natural disasters, mass shootings, protest marches, and about any type of event one can think of. With the internet serving as a distributor and amplifier, virtually anyone with broadband access has the potential to reach an enormous audience at a far lower cost than ever before. The famous saying that one should "never argue with someone who buys ink by the barrel" (origin unclear) would become somewhat of a relic by the early 21st century as the barriers to entry for publishing came crashing down. Once mighty newspapers have lost revenue from classified advertising to sites like Craiglist and display ads to social media and Google, which can deliver a more targeted ad for much less money. Many papers have closed their doors, while others are a fraction of the size they were a decade ago. (Hayes & Lawless, 2018) Newspapers have lost readers to more nimble digital news providers and independent "creators." And in many cases, newspapers are not being as well compensated for their content as it is shared freely over social media (Pattabhiramaiah, 2018).

A new kind of widely accessible grassroots news reporting entered the mainstream in the late 1990s with the emergence of blogs (Drezner & Farrell, 2004). Also known as weblogs, blogs are typically websites, periodically updated, displaying the latest entries first (Ho, 2007). According to veteran blogger Rebecca Blood (2000), early

blogs were “a mixture in unique proportions of links, commentary, and personal thoughts and essays,” (para. 5).

Although online communities including Usenet, listservs, electronic bulletin boards, and chat rooms existed before blogs, this low-cost form of publishing allowed almost anyone to potentially reach a worldwide audience. Born in the Web 2.0 era, blogs are still around in 2023, despite reports of their demise (Kabadayi, 2014). Their emphasis on the most recent news continues and tends to be the focus of broadcast, cable and online news as well. Blogs like the *Drudge Report, Ars Technica, Huffpost* and many others remain popular today.

Blogs are widely used as a platform for citizen journalism, a term and concept widely associated with the emerging web era (Scott et al., 2015). Jay Rosen (2008) notably observed that the ease of publishing on the web gave “the people formerly known as the audience” (p.1) tools to create their own journalism and to influence traditional gatekeepers. But there are strong arguments that citizen journalism existed in analog form centuries before the birth of the internet.

There are multiple examples of pre-internet citizen journalism. The photograph has been around for nearly 200 years, but the development of Kodak’s consumer cameras in the late 1800s allowed everyday people to contribute images of news events to newspapers and magazines (Sturken & Cartwright, 2001). Arthur Felig was a pioneer in this approach, starting out as an amateur photographer in the early 20th century, earning a reputation in New York City for his ability to turn up at high-profile crime scenes,

sometimes before the police. Nicknamed Weegee, either because of his prescience or because he spent so much time with a squeegee drying photographic prints (Bickerton, 2018), Felig would later start his own news agency. He made a decent living selling photos to newspapers for a few dollars each (Somerville, 2015). His pioneering work, including photographs of so-called Murder, Inc. gangster slayings. remain both widely acclaimed and criticized.

Weegee's legacy lives on. In the 1970s, Boston photographer Stanley Forman used to sleep with his scanner right in his bedroom. One night he heard a call that led to the scene of a deadly brownstone apartment fire (Winslow, 2014). He arrived in time to witness the horrible collapse of a fire escape as a 19-year-old woman and her two-year-old goddaughter fell to their deaths. The photographs from that day won him a Pulitzer Prize.

As a television assignment editor in the 1990s, it was not unusual to receive amateur video of news scenes from scanner listeners and viewers who stumbled upon breaking news. Much like Abraham Zapruder, who became the accidental documentarian of President Kennedy's assassination with his home movie camera, amateurs sometimes find themselves in the right place at the right time to capture events as they happened. Others go chasing after news with the help of a police scanner.

Advancements in consumer camcorders let amateurs contribute increasingly higher quality video to television news programs, a practice Ouellette (1995) referred to as participatory television. As an example, Ouellete noted the 1992 *NBC News* prime-

time series. *I Witness Video* (Landau, 1992), one of many such shows that would appear in the years to come. The practice of sharing content only accelerated when video became viable on the internet and millions of people with smartphone cameras began posting photos or video on YouTube and other social media platforms (Gillmor, 2004).

Citizen Journalists

The exact origin of the term citizen journalist is unclear. Gillmor (2004) suggests that Oh Yeon Ho, founder of Korea's *OhmygNews,* is one of the earliest examples of citizen journalism on the internet (e.g., Bowman & Willis, 2003). The term is ubiquitous today, and Colistra et al. (2017) suggest that most scholarly definitions of citizen journalism center on the actions of amateurs who create media content that was once largely in the purview of professionals (e.g., Goode, 2009; Holton, et. al., 2013). Researchers examined levels of citizen participation within the wide landscape of online news and social media, arguing that the key question is the degree of control user-creators have to distribute their work online (Scott et al., 2015). By examining the roles of citizen journalists across the stages of news production, Scott et al. concluded that less-structured news outlets tended to give more power to citizens, while legacy outlets with more established authority tended to use less citizen content. Other scholars view the meaning of citizen journalism literally: news gathered, edited, and distributed by citizens with limited or no collaboration with professionals. (Thurman & Hermida, 2010; Nip, 2006).

Produsage is a term used to describe another model that resembles the vision of citizen journalism as a strictly amateur creation. Bruns (2007), envisioned a content

creation system in which users also become producers. Wikipedia is perhaps the prototypical example: users collaborate within a loose structure with leaders continuously emerging and receding.

Participatory journalism (Lasica, 2003) is a term that is also used to describe the activities of citizens who act as journalists. Bowman and Willis (2003) used the term to stress the increased power of the audience, with "citizens, or groups of citizens, playing an active role in the process" (p. 9) of news gathering and production. Participatory journalism was also distinguished as a "collaborative and collective" (Singer et al., 2011, p. 2) process in which journalists and citizens work side-by-side in the production of news. This approach suggests that "People inside and outside the newsroom are engaged in communicating not only *to*, but *with* one another" (p. 2).

Another way of looking at content produced by citizens is the concept of reciprocal journalism, a "mutual exchange between journalists and audiences," (Lewis et al., 2014, p.1). In the case of the Mountain News Net, Founder Jim Richardson suggested one reason for the service is to help the news media make accurate, timely reports using the group's tips. Presumably the benefit for journalism is obvious, but the reciprocal value for Mountain News Net members is unclear; perhaps it is the satisfaction of helping journalists do their jobs. Another benefit might be seeing their tips turned into news stories broadcast or published. Lewis et al. might call this direct reciprocity, in which News Net members provide content with any expectation of reciprocity. These relationships tend to build connectedness with the journalists they work with. According

to Lewis et al., there are two other kinds of reciprocal journalism relationships, indirect and sustained reciprocity. Indirect reciprocity occurs when "the beneficiary of an act returns the favor not to the giver, but to another member of the social network" (p. 7). Sustained reciprocity involves extending direct and indirect reciprocity over time.

It is important to note that there is also a business relationship between news agencies and the Mountain News Net organization. Media outlets pay for Mountain News Net service, at a rate that is more than what regular members pay.

User-Generated Content

While there are several names for the journalistic content produced by non-journalists, the broadest term to describe citizen journalism is user-generated content (Holton et al., 2013). Noting that participatory journalism and citizen journalism both "refer to journalistic behavior undertaken by non-professionals," Holton, and their colleagues argued that "participatory journalism and citizen journalism are sub-categories within UGC" (p. 721).

Except for participatory television, all of these terms emerged with the rise of the internet. Yet, at least 15 years before citizen journalism became a common term, groups such as Colorado's Mountain News Net used simpler tools to create and share content Twitter-style using alpha-numeric pagers and a team of volunteer "dispatchers." During the 1960s and '70s, New Jersey's Gong Club used phone trees and later migrated to two-way radios to share dispatches about large blazes and other incidents to its firefighter members, family, and friends, according to longtime member Jimmy Carrey. Today

dozens, if not hundreds, of individuals and clubs around the world operate so-called incident notification services that provide streams of breaking news scanner reports via twitter, email, or even alpha-numeric pagers. Some of these services have established gatekeeping policies and others publish more complete stories or content aggregated from other sources.

The decline of newspaper and broadcast audiences and the emergence of leaner digital alternatives has made cultivating the production of accurate, reliable user-generated content an economic imperative in commercial journalism (Lewis et al., 2010). Yet the verification process is made even more difficult considering growing evidence of the misuse of social networks through the spread of so-called "fake news outlets" (Lazer et al., 2018, p. 1094).

As with citizen journalism, the term user-generated content is generally used to describe material created and published in the internet era (Manosevich & Tenenboim, 2017), although Lobato et al., (2011) took a broader view and argued that user-generated content has been around since the first letters to the editor and continued to advance with the development of low-cost cameras and other technology. It is from this perspective that I explore scanner enthusiasts and the news feed-like content streams developed by some groups of scanner radio hobbyists.

The literature on user-generated content shows that the definition appears to have broadened over the years (Holton et al., 2013). Vickery et al. (2007) provided one of the earliest definitions, as material created by users that "must be published in some context,"

(p.18) including modifying existing work or developing something original, and that creation must take place outside of professional media routines. The authors noted that these criteria might change over time, and other researchers posit they have already changed (Wang & Diakopoulos, 2021).

Citing the blurring of lines between media users and producers, Örnebring (2008) concluded that user-generated content should also include user content "channeled through" (p. 771) traditional news organizations. His analysis of tabloid journalism suggests that lower levels of user participation, such as submitting comments, should be considered user-generated content. Broadening the definition further, Jönsson & Örnebring, (2011) created a taxonomy of user-generated content focusing on the level of user participation in the creation of content and the type of content, from the perspective of power. Their study connected the degree of participation with the degree of influence users have in the production of news, in levels ranging from low to high. Low-level user-generated content involves using personalization features such as RSS feeds allowing consumers to choose what content to receive. Medium involvement includes participating in comment areas and complying with "actively solicited" (p. 131) requests for photographs, videos, or written content. High-participation user-generated content includes users who are producers of content for their own reasons, not because it was requested by a journalist.

Today, user-generated content is arguably as common and widespread as any form of legacy media and includes a spectrum of platforms, email newsletters, UseNet,

listservs, blogs, YouTube, TikTok, and Instagram-distributed videos, photos, memes, remixes, games, apps, and many other creations. The amount of time spent engaging with YouTube, Facebook, Twitter, Instagram and other platforms demonstrates the popularity of this content. User-generated content exists for almost any conceivable topic, from fan fiction to Supreme Court analyses to online learning. Today, if something in the house is broken, there's probably a DIY video on YouTube to help fix it.

In the 1980s, computer bulletin boards provided some content management lessons that might be useful for today's social media companies. Users first encountered some of some of the unintended consequences of online communities now common, including the vitriol and echo chamber effects that have been widely criticized (Jensen, 1987; Powers et al., 2019). According to Jensen, members of these simple electronic soapboxes included extreme political groups, pedophiles, and hackers causing concern among regulators about the dangers of bulletin board content.

Even so, whether it is teenagers dancing on TikTok, or thrift store fashion videos on YouTube, consumers seem to have embraced user-generated content, although it remains somewhat controversial and is often criticized by traditional journalists as non-professional, prompting them to resist it in order to defend what they perceive as the boundary between the pros and the amateurs. (Wahl-Jorgensen, 2015). Thus, journalists are thought to be establishing boundaries to protect the journalism profession. A common view among many journalists is that "professional skills are required to turn amateur, unpolished contributions into useable and trustworthy content or journalism" (p. 4).

One area where those professional skills might be needed is verification, which brings the worry that verifying user-generated content means extra work for already time-strapped journalists. Verification seems to be important for consumers. According to one study, consumers value content that has been verified by a professional journalist (Grosser et al. 2019). The study suggests user-generated content that is verified is more trustworthy than similar content that is not.

Hermida and Thurman (2008) found that journalists and owners are often leery of user-generated content in order to "protect the brand" (p. 9) or reputation of their media companies. Some legacy organizations believe they must "defend themselves against the incursions of user-generated content through the closely related strategies of co-optation and segregation" (Wahl-Jorgensen, 2015, p. 1).

In many cases journalists themselves stand in the way of user-generated content, viewing it as a challenge to their professional authority (Wahl-Jorgensen, 2015). Some journalists "view user-generated content simply as a resource to be harvested by professionals for the purpose of integrating into stories that are already on the news agenda" (p. 5).

Another argument against user-generated content is the widely held ethical standard that journalists should maintain a professional distance from their sources (Singer & Ashman, 2009). In a study of how user-generated was utilized at the *Guardian* newspaper, Singer & Ashman found that journalists face an ethical quandary working with content creators who are also readers. They concluded that journalists must

"negotiate new, more dialogic relationships" (p. 23) to foster a participatory relationship with readers. Some of the scanner listeners interviewed for this project created such relationships decades ago and have contributed scanner tips to news outlets since then.

The declining revenue streams of newspapers make user-generated content an economically desirable alternative. Jönsson & Örnebring (2011) explored the political economy of using free labor in journalism, and what motivated creators to work without compensation. Their study of British tabloids and broadsheets found that most user-creators were producing content centered on popular culture or their everyday lives, and in practice, "user-generated content has very little to do with hard news journalism" (p.135) in online newspapers. In this framework, the notion of user-generated content as "empowering citizens" is more of a utopian ideal than a consistently reliable source of news.

Recent events, however, suggest that user-generated content can indeed empower citizens to support democratic ideals. A prime example is the Black Lives Matter movement, whose protests resulted at least in part as a reaction to amateur videos, including one documenting two white South Georgia men as they shot Ahmaud Arbery, an African American (Faussett, 2020). As-it-happened amateur videos demonstrate the potential power of billions of people equipped with cameras at their fingertips. Of course, the same argument can be made that user-generated content can also be used to promote hate speech and fake news as noted in the comment sections of many news sites (Boberg et al., (2018). This so-called "dark participation"(Quandt, 2018, p. 1) means "the idea of

free, high-quality user-generated content in the context of professional online news media is seemingly half dead" (p. 37). Quant's research focused on the deletion of user-generated content in a prominent online forum.

There are audiences who seem to favor user-generated for its perceived authenticity. Consumers tend to value authenticity over traditional journalistic presentation (Wahl-Jorgensen et al, 2010 as cited by Wahl-Jorgensen, 2015).

> This understanding of authenticity encompasses the idea of an uncensored outpouring of personal storytelling, emotional integrity, realism, immediacy and identification. This is contrasted to the perceived professional distance of journalism, which involves a "cold," "detached," "objective" and "distanced" approach (p. 3).

Much of the academic discussion of user-generated content centers on two areas (Manosevitch & Tenenboim, 2017). First is the economic impact of co-produced news in which users contribute content to journalistic outlets. The rapid collapse of the business models that supported many local newspapers is likely to encourag increased use of user-generated content in newsgathering. The problem is particularly acute in smaller cities and towns with no other source of local news (Bosman, 2019). Local editors are increasingly facing a choice between using amateur content or simply not covering an important story. They must rely on user-generated content yet struggle to find the time to verify the content and tailor it to publication standards.

Manosevitch & Tenenboim, *(*2017) suggest a second major focus of user-generated content research should be on the process of engaging citizens to contribute to the public good by gathering information essential to democratic self-governance. This notion of a "participatory culture" (p. 2) envisions a landscape of traditional media and new platforms for citizens to share their ideas and opinions. There are certainly parallels here to what members of the Mountain News Net do. Sharing of content in the form of story tips that, in turn, are shared by the media is an example of citizens engaged to contribute to the public good.

User-generated content exists in a variety of contexts, such as stand-alone works like blogs, socially shared content on wide range of topics, or as contributions to more traditional media outlets. When it comes to the long-term prospects for user-generated content, Hermida & Thurman (2008) suggest that news organizations are likely to continue their gatekeeping role, verifying and shaping such content to fit the standards of each publication, while still bringing new voices into the content stream.

User-generated content and Authenticity

Perhaps the most common example of user-generated content is that which is found on social media. It has become a powerful marketing tool. Created with the authenticity of amateur content creators, user-generated content can have a strong influence on brands (Kim & Johnson, 2016). It can also have a negative impact (Presi et al., 2014), as with Yelp.com, for example.

Authenticity is a key part of the allure of user-generated content on YouTube, particularly among young audiences (Holland, 2016). User-generated news content is "perceived as authentic, immediate and real" (Wahl Jorgensen et al., 2010, p. 177). Audiences view such content as "fresh … emotionally engaging and democratizing" (p. 190). But audience perception does not mean that user-generated content is, in fact, accurate. In the echo-chamber world we live in, news sources embrace radically different versions of the truth, and this is reflected in the user-generated content that fuels this disfunction. Tictok is an example of this. (e.g., Medina Serrano et al., 2020). One study suggests that, overall, user-generated content tends to slightly reduce trustworthiness when published by traditional media sources (Grosser et al., 2019). Verified user content, in some cases, was slightly more trustworthy. This might lead some to suggest that journalism would be better off only using content solely created by professionals. But the authenticity and immediacy of user-generated content can be an audience draw, and it gives the user a voice. The question is really moot, however, as many local news organizations struggle to gather enough content on very tight budgets. Some maintain they have little choice but to include user-generated content in their work.

Gatekeeping

White's (1950) study of a wire service editor laid the foundation for gatekeeping theory to help explain how journalists decided what news was fit to print. White built upon the work of pioneering communication researcher Kurt Lewin's (1947) study of group dynamics and social change. Using food production as a metaphor, Lewin described the flow of lots of different goods through "channels" (p. 144) with a series of

obstacles or "gates" (p. 145) that must be passed through before a particular type of food could reach its destination. Those with the power to lift those gates would judge merits of allowing the cargo to pass, turn around, or move to another channel. Hence the term "gatekeeper" (p.145).

White's (1950) observational study detailed the work of a Midwest news editor he appropriately called "Mr. Gates" who chose stories based on criteria such as clarity, his vision of audience needs, and a balance of items from different categories of news. This view of gatekeeping focused on the acts of an individual journalist or editor. White's study demonstrated the power journalists and publishers once exercised when they alone determined what news was widely distributed in newspapers. This top-down view of journalism allowed for little room for audience input, save the occasional letter to the editor or tip from a reader.

In the 1970s, Gans (1979), embracing the sociological turn in journalism (Shoemaker et al., 2009), shifted the focus from the individual to the organizational level, examining the impact of journalistic standards and professional routines on gatekeeping. Gans argued that gatekeeping was influenced by the constraints of format, time and space needed to create a product that could attract advertisers and therefore generate profit.

As the new millennium approached, gatekeeping research began to focus on the impact of changing technology and deregulation. Berkowitz (1990) explored gatekeeping in television news with an approach that included a content analysis and observational study. He concluded that gatekeeping at a network-affiliated TV station was likely to be a

group effort, and that "newscast structure had almost as much to do with story selection as did news merits of the potential stories" (p. 66). Berkowitz (1991) expanded on his work by exploring four forces that act upon the television news gatekeeper: constraints on resources, electronic technology, subsidized news (such as user-generated content or press releases provided by public relations firms), and traditional news judgement. Kaplan et al. (1995) suggested the FCC's decision to stop enforcing the Fairness Doctrine and other deregulation would encourage broadcast gatekeepers to be less vigilant about fairness in political coverage. Indeed, Zerbinos (1995) argued that the repeal paved the way for "phenomenal" (p. 2) growth in highly partisan talk radio during the 1980s. Livingston & Bennett (2003) questioned whether gatekeeping was being sidestepped by the increased use of event-driven live video feeds on television. The study raised concerns about the use of user-generated content, specifically amateur video. Livingston & Bennett questioned whether event-driven stories were overshadowing stories journalists developed from institutional sources. More recently, Nhan et al. (2017) questioned the role of scanner listeners and other crowd-sourced information in the investigation of the Boston Marathon bombing, arguing that the information empowered "cyber vigilantes or digilantes" (p. 341). These modern amateur sleuths sometimes shared incorrect information, shifting the narrative of the investigation, thus complicating the work of law enforcement.

A significant body of gatekeeping studies emerged with the birth of the World Wide Web and its dramatic effect on news distribution. In the view of many, Rosen's (2008) consumers "formerly known as the audience" (p. 1) had become the new

gatekeepers, at least to some degree. Here it important to remember that user-generated content comes in many forms, often bypassing traditional gatekeepers altogether. According to Williams & Carpini (2004), media gatekeeping was dead, at least in the political arena, because the barriers to entry had been lowered and gatekeeping no longer resided in the hands of journalists, newspapers, and broadcasters. Focusing on the Clinton-Lewinsky scandal, the research seems somewhat prescient when one considers the debate over fake news and political propaganda in the United States in 2023.

Bruns (2003) posited that the widely distributed nature of the new media landscape called for a new approach called gatewatching. Media channels were no longer a scarce resource, and information became so abundant that a collaborative approach was needed to point readers to accurate, valuable information. Bruns envisioned online journalists equipped with the skills of a specialist librarian. Instead of publishing stories, these journalists would publicize or aggregate quality work.

Clearly, gatekeeping has become a much more complex process than White (1950) described (e.g., Shoemaker et al., 2009). As Singer (2014) put it, "the gatekeeping process as an attempt to separate the worthy from the unworthy must involve far more participants in an open media environment than in a traditional one" (p.4). According to Singer, users are increasingly serving as secondary gatekeepers. Social media influencers, and the audience as a whole, add value to news stories by what they choose to read, comment on, or share. Publishers observe this "user-generated visibility" (p. 4) effect, and often adjust their gatekeeping practices based on audience behavior. Journalists have

also learned that they too can use social media to increase the visibility of their work. According to Tandoc & Vos (2016), social media use has been incorporated into journalistic practice, both as a potential source and a method to market stories. Hence, "journalists are now expected to promote their own work, in a way reworking the norm of what constitutes newsworthiness" (p. 13).

Gatekeeping and User-Generated Content

Citizens who make user-generated content have many options for distributing their work directly to blogs, social media, and other platforms or they could choose to present their work to a news organization's gatekeeper. Perhaps one of the most common ways to do this is to write a letter to the editor or post a comment under a story on a news website. Comments have become a particularly thorny area for journalist gatekeepers because removing offensive material or banning trolls can bring the wrath of readers (Boberg et al., 2018). Some news sites are taking a fresh look at comments as a potential tool for reader engagement (Morrison, 2017), while others are concerned about the reputational damage that comment sections can bring (Schmidt, 2019).

A 2017 survey of broadcast television news directors suggests a desire for user-generated content, but not without a pass through a traditional gatekeeper (Colistra et al., 2017). Most respondents found user-generated content to be "helpful," "well intentioned" but "slightly more unprofessional" than content generated by their reporters. (p. 131). All the news directors reported having some kind of policy regarding the use of user-generated content, with about two-thirds saying, "informal policies" (p. l32) were used, as opposed to formal written policies. Johnson & Dade (2019) dug a bit deeper into the

challenges broadcasters face when deciding whether to use a particular piece of content. A survey of local producers and news directors suggested concern over copyright issues, whether to pay for user-generated content, and whether the content (typically photos or video) was authentic. Interestingly, some participants suggested that professional boundaries exist between the station's on-air newscasts and their own websites. One news director suggested that user-generated content that "won't make TV" (p. 270) was more likely to be used online.

This research helps fill the gap in the literature by examining the long-standing cooperation between scanner hobbyists and gatekeepers over the use of news tips and other user-generated content. As previously noted, gatekeeping is affected by a multitude of forces at many levels besides the individual journalist. Shoemaker & Vos (2009) suggest that gatekeeping is also impacted by professional routines and standards, organizational influences such as ownership, government and private institutions, and broader cultural forces. And of course, today's vision of gatekeeping must include the impact of the audience and user-generated content (Rosen, 2008, Gillmor, 2004).

Decline of Local News and Utility of User-Generated Content

These are grim times for local news, as previously mentioned (e.g., Claussen, 2020). Newspapers are closing at an alarming rate creating "news deserts" (Miller, 2018) with little or no traditional local news outlets. One impact of this, presumably, is a less-informed citizenry that is not as prepared to actively participate in a self-governing democracy. Using a content analysis of 10,000 articles, Hayes & Lawless (2018) found that between 2010 and 2014 newspapers published fewer political stories. Those that

were published tended to be less substantive. Journalism today is "characterized by ever-increasing turbulence and change, for better or worse" (Wahl-Jorgensen et al., 2016).

Newspapers that do survive must move away from "obsolete business models" (Miller, 2018) and they face "a series of technological, economic, social and even political changes, few – if any of which appear to be reversable" (p. 61). Miller suggests that another trend of concentrated ownership of television and newspaper outlets, "displaces local control of media and shifts decisions to people without a stake in particular local communities" (p. 60).

At a time when local news faces a bleak future, logic would suggest that user-generated content could be a partial solution. In some cases, it is. User-generated content plays a significant role in providing news for remote communities, "often empowering disenfranchised groups" (Wahl-Jorgensen, et. al., 2016, p. 803). Social media is becoming a widely accepted tool for audience participation. "Such participation may range from that of 'accidental journalists' providing user-generated content, to the social sharing practices that shape engagement with news events large and small," (p. 803). According to Picone et al. (2015), "in our current digital news environment, journalistic production is no longer the sole product of professional journalists" (p. 1).

To the contrary, there are still many barriers to user-generated content in newsrooms. In a study of a proposed newsroom dashboard product, Tolmie et al. (2017) concluded that the use of user-generated content is hampered by verification, the pressure of news work, the ability to keep up with various sources of user-generated content, and

newsroom or organizational policies. The research suggests that journalism studies should focus more on audience, instead of the consumption and production of news. In this way, the audience is better served. One interesting finding: across six focus groups in three communities, participants demonstrated a lack of willingness to participate in the creation or distribution of user-generated content.

Motivations for Producing User-Generated Content

With little or no pay and often a lot of work involved, the motivation for creators of user-generated content is not usually obvious. In a study of citizen journalists who produced content during an earthquake in Italy, Farinosi & Trere (2014) found three motives. First, citizen journalists wanted to add their own voice to challenge mainstream coverage. Second, they wanted to document their own situation through their own eyes, and third, they hoped to reestablish contact with those with whom they had lost communication due to the earthquake. Looking at crowd-sourced journalism, Aitamurto, (2015) concluded that participants contribute content to for altruistic reasons: to enrich society, bring about social change and equity, and to educate fellow citizens. Similar altruistic motivations are behind the work of CGNet Swara, a citizen journalism platform in India that serves the underrepresented in small rural villages (Pain & Chen, 2019). CGNet is voice-based, so citizens can call in and leave a report of a news event. One participant told the researchers their motivation was to "improve society, I like to help people" (p. 11).

Fundamental Principles of Journalism

"Accuracy is our Journalistic Grail."

Michele McLellan, *Nieman Reports*

Trust, accuracy and credibility are the bedrock principles upon which the professional ideals of journalism are built. Getting the story right engenders trust and builds credibility. These principles are goals, not always realized in day-to day journalism. In one example, a survey of 48,000 news sources in the early 2000s found errors in 61 percent of local news and feature stories (Maier, 2005).

Increased political division in American society has resulted in a sharp partisan divide over trust in the news media (Gottfried & Liedke, 2021). According to the Pew Research Center, trust in national news organizations among Republicans has dropped. Those who said they trust news "a lot" or "some "(p. 1) dropped from 70% in 2016 to 35% in 2021, while trust remained relatively high among Democrats and Independents at 78%.

News credibility has been measured in a wide variety of ways, including how journalists can alter news stories to increase credibility (Meyer et al., 2010), the factors for why people judge certain blogs to be credible (Kaye & Johnson, 2011), and perceptions of the credibility of journalists on Twitter (Jahng, & Littau, 2016).

Of course, accuracy is essential in journalism, although in recent years the political divisions within the United States and other countries have led to separate news ecosystems with separate versions of the truth, according to Kerunga et al. (2020):

> Another important finding is rooted in the theory of selective exposure and the idea that people tend to see and hear information that is favorable or congenial to their predispositions. In other words, this is some form of cognitive dissonance in that sense that when people's cognitions conflict with their beliefs, they get to incline themselves to some selectively exposed content so as to reduce their dissonance. (p. 3)

Americans are increasingly placing their trust in alternate sources, such as late-night television rather than traditional forms of news (Gondwe, 2017) This claim is reenforced by research that shows many Americans now get their news from social media (Liedke & Matsa, 2022). An example of these alternate sources are the Facebook groups that scanner buffs use to share reports they heard on their radios. Another would be the smartphone apps now available that broadcast live scanner feeds. Indeed, some of the participants interviewed for this research said they relied on scanner apps or scanner content shared socially as a source of news, particularly news affecting their neighborhoods. This research examines the role that credibility, trust and accuracy play when scanner buffs decide what content to share with their members or audiences.

News Values

What is news? To some working journalists, the above question recalls the words of the late Justice Potter Stewart in his Supreme Court opinion in Jacobellis vs. Ohio (1964). The case involved an attempt to ban a film from theaters because the state of Ohio considered it to be obscene. Stewart famously wrote that he could not define the specifics of what constituted hard-core pornography, "but I know it when I see it" (p.197). Journalists may start the process of learning what news is by going to journalism school, but it could be argued the process of developing news judgement is learned through acculturation. That is, one learns by working side-by-side with other journalists. In my case, it took years before I realized that many things I had been taught were based on tradition, rather than fresh, serious thought. A shooting was always news, even if it may lead viewers to think crime is a much more serious problem than the statistics would bear out.

Taking a big-picture, optimistic view of what news ought to be, Kovach & Rosenstiel (2014) proclaim that journalism should provide audiences with the information they need for self-governance. Journalism should be about telling the truth, not just dutifully transcribing every aspect of a story even those aspects that may be false. Journalism should be about providing information people need, as well as what they may want. Kovach & Rosenstiel argue that journalism carries responsibilities both for the reporter and the owner of a news organization. It could indeed be argued that these principles are what constitute the difference between journalists and amateur content creators.

Sociologist Herbert Gans (1979) took a more cynical view of the profession, saying it largely reflected the views of middle-class moderates, eschewing extremism. Gans argued that news was also shaped as much by process, with tight deadlines and television news formats. Journalists were therefore "mass-producing a product for a humongous audience" by operating " assembly lines managed by decision makers with still quasi-military roles" (p. xvii).

Zooming in a bit from the big picture to the everyday decisions journalists make as gatekeepers, the focus shifts to news values. Veteran journalists might describe news values as something almost instinctive (Brighton & Foy, 2007) or the result of a "gut feeling" (Schultz, 2007, p. 1), but a great body of research is focused on the specific journalistic values that gatekeepers use to determine newsworthiness, or news values.

A number of scholars have attempted to define news values (Bednarek & Caple, 2014). One early study defined news values as embedded in the "process by which news editors used to select the top stories of the day," (Breed, 1955, p. 277). Writing about what seemed to be an increasing sameness in newspapers of the day, Breed suggested that an "arterial" (p. 279) pattern of influences between newspapers large and small encouraged a kind of standardization that led them to cover stories in much the same way. Bell (1991) wrote that news values help journalists judge whether one fact or story is more newsworthy than another (p. 155). Montgomery (2007) described news values as "principles of inclusion and exclusion," (p. 5) while Cotter (2010) simply declared that news values are the "qualities that make a news item newsworthy" (p. 67).

Harcup & O'Neill (2001) observed that news values are a "slippery concept" (p. 344). Indeed, news values are "far from a unified entity," (Palmer, 2000, p.44) . Platforms, for example, influence news values. Tabloid newspapers may tend to emphasize different news values than traditional newspapers, while visual elements tend to receive more emphasis in television news.

Galtung & Ruge's (1965) seminal study of what constitutes news examined the flow of international news to three Norwegian newspapers. They attempted to define the "newsworthiness" (p, 90) of a story using a list of 12 criteria including: frequency, threshold, unambiguity, meaningfulness, consonance, continuity, composition, reference to elite nations, reference to elite people, reference to persons and reference to something negative. Galtung & Ruge did not claim these were the only news "factors," but that they could serve as a useful taxonomy.

Harcup & O'Neill (2001) tested the 12 factors using an empirical content analysis and concluded that the Galtung & Ruge "taxonomy of news factors appears to ignore the majority of news stories" (p. 16) in their analysis. They proposed a list of ten contemporary news values:

1. The power elite: Stories concerning powerful individuals, organizations, or institutions.

2. Celebrity: Stories concerning people who are already famous.

3. Entertainment: Stories concerning sex, showbusiness, human interest, animals, an unfolding drama, or offering opportunities for humorous treatment, entertaining photographs or witty headlines.

4. Surprise: Stories which have an element of surprise and/or contrast.

5. Bad news: Stories with negative overtones such as conflict or tragedy.

6. Good news: Stories with positive overtones such as rescues and cures.

7. Magnitude: Stories which are perceived as sufficiently significant either in the numbers of people involved or in potential impact .

8. Relevance: Stories about issues, groups and nations perceived to be relevant to the audience**.**

9. Follow-ups: Stories about subjects already in the news.

10. Newspaper agenda: Stories which set or fit the news organization's own agenda. (pp. 18-19)

Harcup & O'Neill (2001) argued that news values should be hierarchical, and that "certain combinations of news values appear almost to guarantee coverage in the press" (p. 16). However, they cautioned that the study was not designed to empirically support the notion of a hierarchy of news values. The above list will be used as the primary

taxonomy for this research because of its completeness, and Harcup & O'Neill's use of an empirical content analysis in their study.

There are many approaches to examining news values, and no single theory can provide a complete explanation (Harcup & O'Neill, 2017). This applies, specifically when it comes to one common news value left out of Harcup & O'Neill's (2001) list: timeliness. This is a news value that has played a role in almost every job I have held in the journalism field. Indeed, Bednarek (2016b) included timeliness in her list of nine news values, which also includes consonance, negativity, impact, proximity, unexpectedness, superlativeness, personalization and eliteness. In addition, study participants specifically mentioned timeliness as an important factor in deciding whether to share a particular incident report from the scanner.

When analyzing news values there are many factors to consider, including the type of news platform, the various roles and power structures within a newsroom (Schultz, 2007), how news organizations promote themselves (Bednarek & Caple, 2014), the influence of public relations firms (Sallot et al., 1998; Brighton & Foy, 2007), visuality, emotion, conflict and the "celebrification" of the journalist (McGregor, 2002, p. 3), and the interaction between journalistic norms and ambition versus market force and institutions (Allern, 2002).

News values research took a new direction with the development of internet distribution, social media, and user-generated content. For example. Potts et al. (2015) used computers to develop a corpus of 36-million words of text-based news coverage on

Hurricane Katrina. The study used "corpus-linguistic" (p. 168) techniques and the authors found that searching for semantic tags might prove the most useful for identifying news values. Bednarek (2016a) used somewhat similar methods to study the news values in stories that were shared by consumers on social media.

A content analysis of a Phoenix news website found that historic news values still matter to online readers (Schaudt & Carpenter, 2009). The study showed that readers most preferred the values of proximity and conflict. Kilgo et al. (2020) looked for news values and the impact of emotion in the social sharing phenomenon that came to be known as the Ice Bucket Challenge. (This was a fundraising stunt in which social media users invited their friends have a bucket of icewater dumped on their heads, on camera, to raise money to fight the degenerative disease ALS.) A content analysis found that traditional news values of celebrity (elite persons) and human-interest were primary drivers of sharing, although there were differences between the approach of legacy news organizations and social media.

Harcup & O'Neill (2017) noted while there are many different approaches to news values, taxonomies of professional news selection priorities are still "valuable to unpack the criteria involved in the selection of news since this is one of the most important areas of journalism studies" (p. 1471). A study of the news values at the level of the individual creator of user-generated content would be similarly useful. This research did just that, examining how news values play a role in the sharing of content by scanner listeners, and what those values are.

News Judgment

In an age when many traditional media organizations are losing their footing due to competition from socially shared content, it could be argued that they do offer at least one distinct advantage. Traditional news organization use editorial judgement, typically based on experience, to cull through the flood of information available each day to present what is hopefully the most important, relevant, and accurate content. The value added is in the dozens, if not hundreds of choices news workers make while on the job.

The obvious definition of news judgement might be the use of news values to determine the worth of a particular item above others. And this is a position many scholars are likely to, at least partially, agree (e.g., O'Neill & Harcup, 2019; Harrison, 2005). But, as Schultz (2007) explains, making news judgements is more complicated than that. It involves deploying a "seemingly self-evident and self-explaining sense of newsworthiness" (p. 190). Using ethnographic techniques, Schulz concluded that deciding newsworthiness is almost an instinctual process:

> Journalistic habitus or news habitus is a bodily knowledge and feel for the daily news game which can be seen in the journalistic practices regarding the qualification and legitimization of newsworthiness, which almost takes place without words. The speed of news is just as fast as the case study has attempted to illustrate. Journalistic practice is not the place for thorough, detailed discussions of every little news story. Rather, news habitus implies a fast-decision-making process. (p. 202)

Schultz (2007) suggests there are two broad categories of news values in journalistic practice. The first, called doxic values, "are silent and belong to the universe of the undisputed" (p. 204). The second, orthodox/heterodox values, "are explicit and debatable and belong to the spere of journalistic judgment" (p. 204). Both of these types of news values are at work when a journalist seems to "just know" or "has a feeling" about a news story.

Earlier in my career, it seemed apparent that news judgment was something learned through osmosis, by working with others in the profession. Of course, most of the people from whom I learned looked like me and were from similar backgrounds. Over the years I grew to realize this and worked to include a broader range of opinions in newsroom story meetings. News judgement is indeed a "somewhat slippery concept" (Harcup & O'Neill, 2001), and is, unfortunately, not the subject of frequent debate in newsrooms. Paul and Berkowitz (2019) describe news as dynamic rather than stable, and that newsworthiness is likely to be influenced by a " journalist's educational and personal background, workplace arrangements, and interactions with the larger society over a period of time" (p. 1). Keeping all this in mind, this dissertation not only examines how news values may be used by those sharing scanner reports. It also explores the 'news judgement scanner buffs use to decide what content they will share. That news judgement is exercised in the news feeds groups like Mountain News Net produce, and in what they choose to directly share with news organizations.

Mountain News Net began sharing content using alphanumeric pagers. These news feeds, which resembled Twitter posts, were created by members to share with their friends in the group. Material was screened by "dispatchers" who would decide what to send out over the pager network. Here we have an opportunity to examine the news values and news judgment used by these dispatchers to decide what would be shared. This form of gatekeeping among creators of user-generated content has rarely been studied. One example is Lindner's (2017) work comparing the news gathering routines of citizen journalism websites with those of professional news organizations.

Research Questions

There is little research work on the creation and distribution of user-generated content by scanner listeners, yet there is a considerable amount one can learn from them. Scanner listeners produce streams of content, generally for their own purposes, that providesi a source of valuable tips for news organizations, and in some cases serve as sources of information during breaking news situations. Therefore, this dissertation answers the following research questions:

RQ-1: What role did "scanners" play in the development of early citizen journalism? Similarly, what role did journalism play in the development of a scanning culture and practice?

RQ-2: In what ways did scanners incorporate or reflect journalistic news values into their work and contributions?

RQ-3: Does public service play a role in the use of news values by listeners who share content from police scanners?

CHAPTER 4

METHODOLOGY: A QUALITATIVE APPROACH

"It can "give voice" to a group of people or an issue, provide a detailed description of events or experience, develop theory, interrogate meaning in-texts, identify discourses, or demonstrate the discursive features of a text; and/or engage in social critique. Qualitative research is not a single thing, those people who don't understand it often treat it as if it is."

—Clarke & Braun, *Successful Qualitative Research for Beginners*

From its inception, it was clear that data-gathering and analysis would be a challenge for this project. There are hundreds of thousands of scanner listeners in the U.S. alone. There are also hundreds of scanner listening groups, some of them sharing content from the scanner. For myself, there was concern about the potential impact or benefit that my own background as a scanner listener could bring to the research. These factors, and the fact that this is a largely unexplored topic in academic literature, led to the choice of a qualitative approach.

Qualitative research methods can be ideal when "a problem or issue needs to be explored because little has been done on it" (Creswell, 2014, p. 47). The topic of this dissertation does not have significant literature to rely on, and it involves a complex set of relationships that have yet to be explained in any detail. "Qualitative research involves the collection, analysis, and interpretation of data that are not easily reduced to numbers.

These data relate to the social world and the concepts and behaviors of people within it" (Anderson, 2010, p. 1).

It occurred to me early on that it might be wise to contrast the journalistic methods I used during my professional career with the qualitative methods to be used in this academic project. The goal was to provide a useful framework for discussion of the methodology. There are indeed similarities; as a journalist I knew virtually every story has two or more sides, angles or approaches. This also seems to hold true for qualitative research. As opposed to the positivist quantitative paradigm, which tends to look for a single, generalizable, reproduceable set of findings, the qualitative approach recognizes that there may be many different ways of finding meaning in the same set of data (Clarke & Braun, 2013). Quantitative research typically involves testing a hypothesis with methods that use representative samples and mathematical calculations to seek an objective analysis. Qualitative approaches, on the other hand, recognize and embrace the subjectivity of the researcher, tempered through reflexivity, and appropriately applied.

Continuing the comparison with journalism, as a reporter I was taught to produce an objective explanation, eschewing personal bias (or the context through which the reporter views the world), to create a reflection of reality. This is somewhat like a quantitative approach. Qualitative researchers, however, recognize subjectivity and take this "bias" into account as part of the context or as grounding expertise (e.g., Ratner, 2002). Since little is known about scanner listeners, the journalist in me wanted to tell their story. A qualitative approach seemed the most suited to the project because I want to let the scanner listeners explain their reality, while recognizing that since I am also a

scanner listener, it would be important that I act reflexively so the voices of the participants come through unimpeded by my own influence. This meant frequently checking to ensure I did not impose any preconceived views upon those I would be interviewing but would instead use my knowledge of scanner listening to encourage participants to dig deeper into the subject.

Qualitative methods allow participants to share their experiences in their own words within the contexts in which they are familiar (Creswell, 2014). Simply put, qualitative methods provide an excellent starting point for a topic that is largely unfamiliar. This research sheds a deep light on the community of scanner listeners and groups.

Qualitative researchers "study the performances and practices of human communication" (Lindlof & Taylor, 2011, p. 4). Qualitative communication research is not an "easily summarized phenomenon" (p. 318). It is constantly being refined through a process of modernization, customization and innovation. This calls for improvisation on the part of the researcher to determine the most effective method for studying a particular research problem.

Qualitative methods provide rich data (Mack et al., 2005) about narrowly focused subjects and specific groups of individuals and spans of time. "The great contribution of qualitative research is the culturally specific and contextually rich data it produces (p. vi). Qualitative research aims to "understand the myriad meanings people make" (Brennen, 2017, p. 22) through observation, study of the existing literature, and by a deep

understanding of the context. In this way, qualitative work goes deep and broad, with such intense immersion in the material that it is highly credible and applicable to understanding broader related issues.

Method Overview

This research involved a thematic analysis based off the constant-comparative approach (Glaser & Strauss, 1967). Although this method was originally created to develop grounded theory, it has become a hallmark of qualitative research, particularly in finding emergent themes (Leong et al., 2010).

In this approach, "the researcher begins with an area of study and allows the theory to emerge from the data" (Strauss& Corbin, 1998, p. 12). Inductive research starts with a set of objectives. in this case research questions, with no preconceived outcomes but instead relying on the data to tell a story (Thomas, 2003). This ground-up approach differs from deductive analysis, which essentially involves testing "whether data are consistent with prior assumptions, theories, or hypotheses identified or constructed by an investigator." In other words, while a quantitative approach that involves testing a hypothesis, in inductive qualitative analysis, meanings emerge through a gradual reduction or synthesis of the data.

Situating the Researcher in the Research

"In qualitative inquiry, the instrument of research is the researcher."

—Leslie Jean Thornton, *Topic Teams in the Newsroom*

I have experience in scanner listening, amateur radio and journalism. I've worked as a journalist for nearly three decades, been a licensed amateur radio operator since I was 14 and have been an intermittent scanner listener since I was a teenager. This familiarity provides an advantage in that I have a better-than average understanding of the culture and history of these areas. My prior knowledge helped me locate relevant interviewees and groups of scanner listeners. Understanding the nuanced differences between amateur radio operators and scanner listeners, for example, was extremely helpful throughout the research process. However, because I possess contextual knowledge and am personally acquainted with some of the interview subjects, questions could be raised about bias and possible influence on the outcome of the research (e.g., McNarry et al., 2019).

From a strictly positivist perspective, a key approach to these interviews would be objectivity; the researcher as a neutral observer. However, qualitative research involving the study of human behavior frequently requires that the researcher becomes an essential part of the research, "Where quantitative texts sought to reduce reciprocity between the researcher and the participant, qualitative work seeks to draw out the richness of this inter-subjectivity by making it central to the research process" (Patnaik, 2013, p 3). Therefore, through the practice of reflexivity, the researcher is a "participant in the process of knowledge construction and not merely an outsider-observer of a phenomenon." (p. 4) Reflexivity is a process of self-reflection that requires an examination of how the research process may be influenced by the researcher's beliefs.

Thus, the reflexive researcher seeks "to suspend as far as possible the researcher's own 'natural attitude'; that is, their preconceptions, presuppositions, attitudes toward, and interpretations of the phenomenon" (McNarry et al., 2019, p. 6). There are many reflexive techniques in use today with no firm consensus on which ones to use. The researcher is encouraged to consider, for example, the power dynamic between the researcher and the participants, intersubjectivity that occurs during researcher interactions and interviews, and how the researcher's biases might influence the participants (e.g., Paterniak, 2013; Day, 2012; Salzman, 2002).

For this research, I had initially thought to employ the basic lessons learned from years working as a journalist. The concept of journalistic objectivity and the 'neutral observer' was ingrained in my interview approach. I rejected that strict approach, but found it was not as simple as I thought. I realized that some of those long-held beliefs and attitudes remained. Through deep reflexive thought sessions after the first couple of interviews, I realized that the process needed to be much more of a give and take. I could not deny my previous experiences as a scanner listener and journalist during these interviews because I found that my contributions drew out stories from the interviewees. Still. I was particularly careful to avoid using my position to influence the interviewees, I frequently repeated what an interviewee had said using my own words to clarify understanding.

Qualitative Semi-Structured Interviews

This study used semi-structured interviews with open-ended questions as the primary qualitative tool. Personal contact with a large scanner club and access to a significant number of listeners was key to an approach that let participants tell their own stories. Although an ethnographic approach could provide valuable first-hand observations, such an approach would require time and resources unavailable to this researcher. According to Lindlof & Taylor, (2011) interviews are an important tool for qualitative research, one that could achieve what I set out to do: letting scanner listeners explain their world.

> Qualitative researchers interview people for several reasons: to understand their perspectives on a scene, to retrieve their experiences from the past, to gain expert insight or information, to obtain descriptions of events that are normally unavailable for observation, to foster trust, to understand sensitive relationships, and to create a record of communication that can subsequently be analyzed. (p. 3)

Semi-structured interviews can be easily scheduled and conducted over video teleconference software such as Zoom, or simply over a recorded telephone connection. Most of the interviews for this study were recorded using Zoom. This technique has its advantages and disadvantages. Zoom was put to the test during the height of COVID-19 pandemic, and proved particularly useful (Oliffe et al., 2021). Zoom allowed interviews to proceed without fear of spreading the virus. Video interviews are also convenient because they can alleviate the need for travel, are easily scheduled, and provide a video

recording and computer-generated transcript if needed. A key disadvantage noted by Oliffe et al. includes the notion of "being there differently" (p. 4), that is, conducting the interview in an unfamiliar place over which the researcher has no control. Zoom can also make it more difficult to read facial expressions and body language, require preparation for the zoom environment, and require adjustments in pacing and dealing with audio lag or distortion. Regardless of these challenges, I found the advantages of using Zoom far outweighed the disadvantages as I was able to interview a wide range of scanner listeners and journalists from across the country. This would not have been possible without the use of a remote interview technology such as Zoom.

A recent study using Zoom to conduct semi-structured interviews suggests that this conferencing tool is ideal for a project like mine. Archibald et al. (2019) found the service "may serve as a highly suitable platform for collecting qualitative interview data" (p. 7), although researchers should be aware that recordings can be made without saving them to Zoom's cloud service. Instead, Zoom allows for data to be recorded onto a researcher's computer. That is a recommendation I followed with this dissertation.

The semi-structured interview design allows for consistency among interviews while at the same time providing flexibility for rich data to emerge. According to Drever, (1995) semi-structured interviews involve the researcher setting up "a general structure by deciding in advance what ground is to be covered and what main questions are to be asked" (p. 1). Semi-structured interviews sit in the middle of a continuum with highly structured interviews such as a survey or focus group on one end, and loosely formatted

conversation-style interviews on the other (Alvesson, 2003). Semi-structured interviews provide a degree of rigor that would be found in a structured interview, but also allow for follow-up questions that can reveal unanticipated paths for examination.

While Alvesson (2003) argued that interview techniques could be viewed along a continuum, with highly structured interviews on one side, and the free-wheeling, unstructured interview style on the other, it is the middle ground with which we are concerned here, the semi-structured interview or the localist approach. While the neo-positivist seeks to reduce bias, and requires interviewer neutrality, the romanticist seeks authenticity, "establishing rapport, trust and commitment" (p. 5). The localist, however, uses semi-structured interviews that produce "situated accounts, drawing upon cultural resources to produce morally adequate accounts" (p. 6). These are moderately informal interviews, that acknowledge that the interviewer does indeed have a point of view. This plays to my strengths as someone who understands journalism, radio, and the scanner culture, potentially allowing me a deeper and quicker acceptance by the interviewees.

Whereas structured interviews are limited to specific questions, semi-structured interviewers emphasize the need to approach the world from the interviewee's perspective (Qu & Dumay, 2011). In this way, the interviewer and interviewee jointly participate in the discussion, often leading to follow-up questions that can add to the richness of the data. This addresses a common criticism of the neo-positivist approach, which tends to encourage "respondents to produce only superficial and cautious responses" (Alvesson, 2003, p. 16).

McCracken's (1988) long interview is one example of the least-structured end of the interview continuum. In this approach, unstructured interviews are an open-ended discussion designed to answer questions while maintaining a certain distance from the interviewee. Another unstructured interview approach puts the interviewer in the role of an "empathetic listener" who participates "in real-life experiences and social reality" (Qu and Dumay, 2011, p. 245; e.g., Berg, 2004; Greene, 1998). One drawback of this approach is that during these long stretches of contact, the interviewer might gradually exert influence over the interviewee. This "imbalance of personal power" (Qu & Dumay, 2011, p. 246) could taint the data. In my research, I was careful to guard against that happening and watched for such influence both in the interview process and the analysis.

For this research, structured interviews would have been so inflexible that opportunities to gain new knowledge could have been missed. Completely unstructured interviews, on the other hand, lack the foundation of a basic set of questions that provide focus and allowed for direct comparison of responses across the entire sample. Thus, the semi-structured technique allowed follow-up questions yet provided enough structure to maintain focus on the key issues.

Since I do have extensive knowledge of this topic through my professional experiences in television, and through subsequent research, I was able to prepare a wide-reaching and relevant interview guide. Nothing that "the quality of the interview guide fundamentally affects the study," (Kallio et al., 2016, p. 2955), a five-step process was developed for creating an effective interview guide.

> "According to our findings, the interrelated phases of the development process were: 1) identifying the prerequisites for using semi-structured interviews; (2) retrieving and using previous knowledge; (3) formulating the preliminary semi-structured interview guide; (4) pilot testing the interview guide; and (5) presenting the complete semi-structured interview guide" (p. 2961).

Each step was followed. The rationale for using semi-structured interviews is outlined above, as is the previous knowledge needed to create the preliminary semi-structured interview guide. Kallio et. Al., (2016) identified three methods for pilot testing an interview guide; internal testing, expert assessment, and field testing with actual interview participants. These methods were used for this study. The guide was evaluated, and minor adjustments were made after the first and second interviews, then used throughout the research project. A few additional changes were made during the research as new information was revealed by participants. For example, the guide was expanded to include a question about the use of encryption after the first several participants brought up the issue during interviews.

I interviewed certain members of the Mountain News Net, a group of several hundred individuals who share information about what they hear over police scanners and other key informants. A detailed list of interviewees is provided in Appendix E. Participants were selected for their roles within the group and experience with scanner listening. For context and broader depth, I also interviewed journalists, assignment editors and other news managers who have worked with Mountain News Net over the

years. I spoke with operators of other scanner clubs and businesses as well, and I also found scanner listeners from other parts of the country to provide examples of experiences related to scanner listening from a broader perspective. A total of 26 participants were interviewed, all of them scanner listeners, five journalists or former journalists, and one listener who is now the assistant police chief in Boulder, Colorado.

Participant Selection and Saturation

In qualitative work, there is no ideal sample size as in a quantitative paradigm because qualitative methods are highly contextualized and personalized and have different goals (e.g., McCracken,1988; Qu and Dumay, 2011). McCracken went so far as to say that interview subjects are not a sample, and therefore respondents should be purposively selected if they represent the culture in which they are immersed. The participants should be diverse, differing in age, gender, race, and social status. And, in McCracken's view, "less is more" (p. 17), meaning one can delve deeper if spread less thinly. He suggested that even a sample size in the single digits can be sufficient, depending on the study**.** Selecting participants is an "opportunity to manufacture distance" (p. 10). Thus, a careful selection process involves seeking diversity in age, gender, ethnicity, educational attainment, economic backgrounds, and occupations.

For this study I began with a few contacts that I knew from my years in the news business, including scanner listeners and journalists. Those who agreed to participate also provided leads on other suitable interviewees. This snowball sample method proved effective as one interview led to another. Along the way I was able to assemble a group of interviews with individuals whose background and familiarity of the topic, in my

judgement, made each a qualified candidate for this research. “Snowball sampling,” according to Noy (2008) “is arguably the most widely employed method of sampling in qualitative research in various disciplines across the social sciences” (p. 333). It is particularly well suited for social networks, such as scanner listeners.

One of the difficulties researchers encounter when designing studies like this is determining how many participants should be interviewed (Sim et al. 2018). In many social science studies using interviews, the data are collected and analyzed until “theoretical saturation” is reached (Glaser & Strauss, 1967 as cited by Sim et al. 2018). This is the point at which further analysis will likely not yield any further insights that would be used to develop theory. The data are organized into emerging themes, and when new themes no longer emerge, saturation has been reached.

This approach also looks toward the point when the analysis becomes repetitive and new data is not found. Hennink et al. (2017) took a broad approach by operationalizing saturation in two ways. In one view, code saturation is achieved when new themes or codes no longer emerge during analysis. In the other view, meaning saturation is reached when the researcher determines that “We fully understand issues, and when no further dimensions, nuances, or insights of issues can be found” (p. 594). Code saturation tends to be less detailed than meaning saturation. To test their two hypotheses, Hennink et al. conducted a health study involving HIV-positive patients. Code saturation was reached at nine interviews, but the researchers determined that additional interviews were needed to determine meaning saturation. The researchers

needed a sample of 24 to define more clearly one of the codes to reach meaning saturation.

The researchers suggest that code saturation alone "may be sufficient for a study aiming to outline broad thematic issues or to develop items for a survey instrument," (Hennink et al., 2017, p. 606), but more interviews may be needed to create theory or to explain complex phenomena. Similarly, some researchers suggest that code saturation, rather than theoretical saturation, is the goal (Sim et al., 2018) I found that for this study, code saturation was sufficient to answer the research questions on scanner listeners and their relationship with journalists.

As Mason (2010) notes, determining the right sample size to achieve saturation is a tricky business:

> The point of saturation is … a rather difficult point to identify and of course a rather elastic notion. New data [especially if theoretically sampled] will always add something new, but there are diminishing returns, and the cutoff between adding to emerging findings and not adding, might be considered inevitably arbitrary (p. 11).

I feel rather fortunate because saturation emerged in a fairly clear manner. During the analysis, I began to see common themes develop rather quickly and reached saturation at 18 interviews. I went ahead and completed additional interviews that were already scheduled, but they did not add significant new findings. They did, however, add

anecdotes, quotes, and background material for the analysis and the overview sections. As Walker (2012) notes, new data always adds something to a study, but in my case, nothing emerged that would change the course of the project.

Participants

A total of 26 individuals participated in semi-structured interviews, using an interview guide. In total, about 21 hours of interviews were recorded and transcribed. A total of 16 interviews were with current or former members of Mountain News Net. Seven participants were or are journalists (four of those used Mountain News Net content on the job), another participant operates a scanner-related business, one is a female scanner listener from Bakersfield, California, a second woman lives in Ohio and works in IT, and a third is a social worker and activist who lives in New Jersey. Two individuals were members of New Jersey's Gong Club, and one operates a school for scanner hobbyists in New Jersey. The sample also includes current and former first responders, including firefighters, a search and rescue volunteer, the Assistant Police Chief of Boulder, Colorado, and the Police Chief of Mountain View, Colorado. Obviously some of the participants are members of more than one of the above groups.

Initially, I had planned to confine the sample to just Mountain News Net members, but it soon occurred to me that adding journalists who have routinely worked with scanner listeners would provide a broader picture of user-generated content and the relationship between both groups. With the desire to hear from as many voices as possible. purposeful snowball sampling led me to three women, one Korean and one African American. Previously the sample had been comprised of white males. Two other

participants were added to the sample because one operates a scanner-related business, and the other is a journalist who opposes that business. Finally, adding an individual who trains scanner listeners added yet another dimension to the research.

Data Collection

The bulk of the interviews for this project were conducted in the summer and fall of 2022. Each participant signed a consent form. The interviews lasted anywhere from 45 minutes to two hours, with the bulk of the exchanges lasting about an hour. A guide was used for each interview, and it occasionally received minor updates to reflect new information gleaned from previous interviews but remained substantially the same throughout the process. Following the process of semi-structured interviewing, participants occasionally brought forth information that was not on the guide in the form of personal experiences or observations. For example, scanner encryption was a point raised by almost every participant. Consequently, I explored the topic in the remaining interviews and wrote about it in the discussion section.

Most of the semi-structured interviews for this study were conducted over Zoom, with a few audio-only interviews recorded on Skype because of technical problems or the preferences of the interviewee. Recordings were made and preserved in a secure laptop. Zoom transcripts were used and thoroughly reviewed and corrected for accuracy. In some cases, interviews were professionally transcribed because of a technical failure, or the use of Skype instead of Zoom.

Each participant signed a release form based on a template provided by Arizona State University. The consent form allows the use of participants' real names in the research and the study was approved by the ASU office of the Institutional Review Board in on March 23, 2020. Now that the research is complete, the data will remain in an encrypted laptop for use in future work based on this dissertation. Audio and video of the interviews will be retained but will only be used for reference purposes.

Data Analysis

Data collected in this study was synthesized through inductive analysis to three overarching categories. The analysis involved a process of coding and recoding the data, gradually combining codes down to a handful of categories, then comparing the categories to find any overarching elements.

In coding the data, I employed a thematic analysis based on the constant comparative method (Glaser & Strauss, 1967) which is iterative by nature. I went through repeated cycles of immersion in the data and the literature, along with periodic reflection. The back-and-forth process continued until no significant new data emerged and saturation occurred (Hennink et al., 2017). Memoing (Strauss &Corbin, 1990) was used (when needed) after interviews, and throughout the research process to note any emerging patterns or concepts, or other observations that may improve the interview process.

To effectively organize the coding process, MAXQDA software was used in a rudimentary way to create codes and to provide a simple structure for categorizing them.

The software's ability to match video with textual transcript clips provided a distinct advantage over coding with file cards or using a word processor. The software was only used as a convenient repository for data and manual selection of codes; none of the more advanced features were employed in this study.

Both the video files and transcripts of each interview were imported into MAXQDA. A total of 864 individual codes were identified during the initial open coding process. These fragments were examined for similarities and patterns and grouped. The second-level axial coding involved finding links between the groups, or emergent themes, to create broader categories. The process was further refined with selective coding where the data were reduced to three overarching categories outlined in the findings section.

Summary of Methodology

This study examined the role of scanner listeners in the creation of what could be considered journalistic content. Through a snowball sampling method, participants were selected for semi-structured interviews using an interview guide. A sample of 26 individuals were interviewed for the study which was analyzed using a thematic analysis based off the constant-comparative method in which themes emerged during the coding process. Saturation occurred after no additional themes emerged. The data were coded and organized for analysis using MAXQDA software. The findings will be reported in the next section, followed by a discussion and recommendations for future research.

CHAPTER 5

FINDINGS

I think it's been part of being able to put yourself in a scene where you normally wouldn't be or maybe we don't belong. So, I think … it's the excitement and adrenaline factor of hearing things unfold in real time.

—Shane Anthony

The subculture of scanner listeners is one of drama, living vicariously, self-protection and serving others. Mostly though, it is about stories—telling stories and sharing stories. In this section are stories about what motivates people to listen to scanners, what kinds of stories draw their attention, and how sharing those stories can be both beneficial and occasionally harmful, depending on the circumstances. The scanner subculture frequently intersects with the world of journalism, and it's also a mixed bag of benefits and some possibility for harm.

First, the findings will be presented in broad terms. I then examine each of the emergent categories of data. Interview data were analyzed through inductive coding based on the constant comparative method. Three overarching categories emerged from the selective coding during the inductive analysis of 864 axial codes. These broad categories are:

A.) The attractions to scanner listening,

B.) The many unfolding stories heard listening to a scanner

C.) Gatekeeping the scanner feed: The Mountain News Net, and certain other scanner groups, set guidelines for what items are shared and how incident reports should be formatted. In many ways, these guidelines are similar to the ethical, journalistic and news values employed professional journalists.

Each of these broad categories provide substantial data to address the research questions.

Attractions to Scanner Listening

"I'm excited about monitoring. You know I like to dig up the dirt, know the scoop, I'm a news hound at heart, I always have been."

—Shane Anthony, 2022

At first blush, it might seem obvious why people listen to scanners; they are seeking entertainment and thrills, living vicariously through the first responders as stories unfold in real time. But there are many other reasons why people monitor scanner radios. These include personal safety, belonging to a group with shared interests, listening for news, and being a part of something bigger than oneself. But entertainment is certainly part of the equation, according to scanner listener David Sjodin:

> I have my scanner next to my bed and it's turned down not real low, but I'll sleep through it until I start hearing a bunch of fire tone, and then people's voices change on the radio, They get more serious. … I don't know if that's a good word, but you can hear, like, tension ... on the radio when something big is happening … so that wakes me up.

Many of the participants said they spend hours a day listening to scanners, including Mountain News Net Founder Jim Richardson.

> I mean, every waking moment for the most part. And then normally I have it on in the background at night, one or two feeds on in the background at night. And I have this sort of sixth sense that enables me to wake up for certain calls. So, there's a certain tone of the voice or a certain number of the number of tones or a certain number of certain things that are occurring that I have a tendency to wake up for. So, I mean, you could say in a lot of ways it's almost 24 hours a day, but not really. It's probably about 20 hours a day and then a little bit in the background the rest of the time.

Listeners invest time to learn the lingo of various sources of scanner broadcasts, which can be highly technical. For example, train workers refer to equipment and operations using specific terms and lingo. For many, listening requires an investment in time and effort just to understand what is going on. Veteran journalist and former Mountain News Net member Shane Anthony compares scanner listening to a sport.

> To me, the whole thing is like gamesmanship … the whole thing is a big 3-D chess game unfolding in real time… so it's a matter of hearing incidents, understanding this, and understand the lingo, the … call signs, all that stuff. Listening to cues that you pick up after scanner monitoring, years of it, of distress in police officer's voices or EMS personnel or … firefighters, first responders.

Steve Davis, scanner listener and police chief of Mountain View, Colorado, said listening to scanners for entertainment has a lot to do with curiosity. "I think that people

have this natural ability to want to be in everybody else's business, I really do. It's like … driving by the car accident and rubbernecking. Everybody wants to see it." But other interviews reveal that there are many attractions to scanner listening beyond the thrill factor.

Scanners as a News Source

Just as reporters look to Twitter for news tips, many listeners rely on scanners to keep them informed, either because their neighborhood doesn't receive much news coverage, or because they don't trust traditional news outlets. Journalism is often referred to as the first draft of history. Scanners serve up the first elements of a news story as it is breaking–ethat a shooting has happened, a car has crashed, or a plane has slammed into the World Trade Center. Like a roulette wheel, there is no way to predict what will come next from the scanner. And no matter how mundane or utterly catastrophic the incident, scanners usually get the first word out.

"Right, it's kind of a preliminary news feed … it's 'here's what's going on, details are still coming in,'" said Curt Mann. Note that Mann used the term news feed to describe the bits of information coming from scanners 24 hours a day, seven days a week. Many of the listeners interviewed said these live as-it-happens feeds are the most reliable sources of information available at the time they are reported. Most realize that scanners provide unfolding accounts of events, which means the story may change as first responders do their work. In some areas without news coverage, scanners, word of mouth

and social media are about the only sources of information. Steve Davis has been listening to scanners since he was a child, and he depends on it.

> I think we all inherently have that somewhere in our subconscious and I think that those of us that know how to get more information use that to our advantage. And I think that listening to scanner feeds, that ability, it does for me. I mean I'm sitting here talking to you and all my radios are off and I'm like, oh what's going on outside my door?

Besides listening to learn what's going on, scanners can be a practical tool for those who travel for a living, said listener Mike Rickert:

> I'm one of those folks who was an early adopter of the GPS enabled scanners because at the time I was traveling a lot through the Western U.S., and it just made life a lot easier. As I traveled it automatically turned sites on and off, departments on and off, things like that. …. So, any traveling I do, it would automatically be covered. … But I think the biggest reason I use them is so I'm in the know what's going on around me no matter where I'm at.

Accountability

If you listen long enough and thoughtfully, scanners reveal a lot about law enforcement patterns, procedures, and the successes and failures of first respondents. Citizens listening to scanners adds transparency to events that are taking place and might also encourage public safety workers to avoid conduct that might not be appropriate for broadcast on the public airwaves. Although I could find no research that suggests public safety workers might tend to behave differently knowing that their radio transmissions

are being monitored, several of the participants interviewed supported that position including Mountain News Net member Mike Rickert, who said public monitoring of scanner channels does make a difference. “I think it does … kind of holds their feet to the fire to make [them] to be more truthful,” he said.

But listening can serve the broader purpose of empowering citizens with an unfiltered perspective of how public safety workers are doing their job, and if they are doing what they should be doing. Retired firefighter and arson investigator Bob Falcone said that scanner broadcasts provide a way for taxpayers to hold public servants accountable.

> Especially as a firefighter who, you know, we would be … negotiating pay raises and things like that, I wanted the public to hear what we we’re doing. It’s important for me for the public to know what we're doing. There’s also this level of transparency if there's something going on in my neighborhood, I want to know what's going on, I want to hear all the police calls that are going on. Not because I necessarily care that somebody [is] calling because their dog neighbor's dog is barking, it's keeping them up, I don't care. Most people don't care, but I think you have a better understanding of what your public servants are doing when you hear them constantly being called to this thing.

Shakima Thomas, an activist and social worker in New Jersey, said the scanner was particularly useful in this way during the COVID-19 pandemic.

> I wanted to know more information about what the office of emergency management was doing while things were being locked down. I just didn't know

> what was going on outside while we were in the house. I was an essential worker, too, so I had to move while nobody else was moving outside, traveling to and from work, and at the time I was taking the bus. I just didn't know what was going on. … I just felt like I was in the dark, so most of the news was about taking a vaccine, or who didn't take it, and Trump. It was nothing about are these roads closed? Will the buses be running today? Are they on schedule? Yeah, so that's really, it's kind of filling in for a failure of journalism.

As public safety agencies continue to embrace encrypting their radio channels, blocking out scanner listeners, it is more difficult for journalists and the general public to know whether the information police are releasing is true or not. Shane Anthony said it cuts "out the middleman for information and information flow in the news media business and you're controlling the information to the news media, and I think it's frightening."

Listening for Personal Safety

Radio traffic reporters call them "looky-loos," drivers who slow down and look if they see an accident on the road. It is also common for people to walk up the street to investigate when a fire truck shows up at a neighbor's house. After all, it only seems natural to be concerned when the police show up in the area or when sirens can be heard nearby. For Micayla Elliot-Smith in Bakersfield, California, safety is a top motivator for listening to the scanner. " It has just gotten so out of control. It's the homeless population has gotten so crazy you can't even go to your local grocer. You can't go to your local Ross to shop for clothes." Elliott-Smith said scanners empower the neighborhood so residents can take steps to protect themselves.

Activist Shakima Thomas lives near high-crime areas of New Jersey, where she said it is not uncommon to hear gunshots. One night, she said, eight shootings occurred near the home where she raises her eight-year-old son. She uses the scanner to look for answers.

> We are trying to figure out how to solve this whole shooting situation that is happening in North … and the scanner does help knowing what areas are most impacted and narrowing it down and kind of doing a needs assessment to figure out, okay, why are the shootings happening more so over here in this neighborhood? And we've come to … certain conclusions: [it's] because there are no [neighborhood] activities, or they are areas where gangs recruit and hang out. These are areas where there's a lot of … housing where people who are released from prison go to live because that's pretty much the only options they have.

Monitoring weather is another way scanners can be used as tools to keep safe. The National Weather Service works with amateur radio hobbyists who operate SKYWARN, a service in which ham operators report serious weather such as tornadoes or lightning. These volunteer storm chasers provide eyewitness accounts of weather events. (https://www.weather.gov/SKYWARN).

For some, chasing storms is an exciting pastime. In the early 1990s when I worked at KCNC-TV in Denver, one of the local storm chasers I came to know was Tim Samaris. He would go on to a career as a storm chaser, and would, in 2013, become one of the first storm chasers ever killed when his car was picked up by a tornado near El Reno, Oklahoma (Wei-Haas, 2018). Samaris was an avid scanner listener.

Mountain News Net members also share weather events, according to former member Eric Hurst, who now serves as South Metro Fire Department Public Information Officer in suburban Denver.

If there was a tornado warning, especially. That would pop up sometimes if we were under a blizzard warning that would happen, and then there was just the occasional like, kind of broader thing, so if I-25 or I-70 was just bedlam because of a snowstorm … maybe a message would go out just saying there's multiple accidents. It's, you know, highway closure, that kind of thing.

Scott Cochran, a Mountain News Net member in Denver, tracks snowplows with his scanner. "We're getting a big snowstorm here tomorrow, you know, that goes on in Colorado. You can listen to plow trucks. You just know exactly what's going on. It's the facts. It's real time." The National Weather Service also operates FM radio stations covering most of the country with automated audio forecasts which can be picked up on most modern scanners.
(https://www.weather.gov/nwr&ln_desc=NOAA+Weather+Radio/.)

Journalists and Scanners

For retired journalist Wayne Harrison, the hours he spent listening to scanners led to a career in news: "Oh, my, just wanting to be the first to know so you can tell somebody else … that's kind of what got me interested in news ... I wanted to be the first to know and to tell people." Listening to scanners could be likened to a rite of passage for journalists. Interns and young news employees often get their first taste of scanner listening in the newsroom, where in many cases, at least one scanner is continuously

operating. Former television assignment editor Mindy Dionne-Wyatt remembered feeling intimidated when she first sat in front of a bank of scanners.

> "There was like 18 scanners or something like that and they're like all in front of you, and I just sat there, and at the beginning it just sounded like complete chatter. … because you had to learn, like, some of the codes and some of the way you know that certain law enforcement, the way they talk.

Journalists find themselves listening to police scanners to keep up on breaking news to get an edge on the competition. Dionne-Wyatt's comments were echoed by others I interviewed, who noted that experience is an essential part of becoming a successful scanner buff. Most people have probably heard of at least one of the so-called "10 codes" used by many police agencies. According to the scanner site *Radio Reference Wiki,* there were once dozens of 10 codes, used by police across the country. A dead body, for example, was referred to on the radio as a "10-0." But with the advent of improved radio technology, 10 codes have largely been phased out (National Institute of Justice, 2010; https://wiki.radioreference.com/index.php/Expanded_APCO_10_Codes).

For many journalists, stories like Columbine were events that help define them as professionals performing a public service (see: Deuze, 2005). I remember how the story unfolded and how my then-employer KKTV covered the tragedy. Like a soldier remembering a big battle, these "war stories" can be defining moments in a journalist's career. Speaking with some of the scanner listeners in this project, I noticed this same reverence for big stories. Participant Curt Mann keeps records of key stories he overheard on the scanner. "I have some recordings that I've made. They're fascinating. I have a CD

of the Aurora Theater shooting, I have one on a chase that ended in an officer involved shooting. They're very intense."

Serious, long-time scanner listeners shared many stories, often in great detail. However, the listeners never gave any indication that their hobby is about celebrating violence or destruction. Rather, they gave the impression the events overheard on scanner reflect real life and reinforce the seriousness of these events and highlight the public service reporters and scanner sharing services can provide.

Scanners and Belonging

Until I began work on this research, I believed that scanner listening was a small, niche hobby. The reality is much different. RadioReference.com, a popular site for scanner listeners, boasts 1.6 million registered users. There are scores of books, numerous makes and styles of scanner radios, and hundreds if not thousands of scanner listening groups and scanner-sharing businesses and livestreams worldwide.

One of the more surprising findings that emerged from the interview data is the importance to many scanner listeners of being a part of something–belonging. Whether it's belonging to a scanner listener group, friendships with other listeners, or growing up with scanners in the family household, belonging is clearly an attraction to scanner listening. It became apparent through subtle indications from most of the interviewees. From Jersey City, New Jersey, listener Phil Lichtenberger said he grew up with scanners as a household fixture. "I was exposed to them at a very early age in my family. The scanner radio was kind of like the TV. Um, my dad always had one on, so there was one always present in my parents' house, and my grandfather would also listen to the

scanner." Mountain News Net member Steve Davis got started in scanning thanks to a police officer.

> I had a Boulder police officer live down the street from me. His name was Lyle Plank, and Lyle was kind of my mentor through the years, and I would sit there and watch Lyle as he got ready for work, and he had a police car that he would come home in. I remember watching him talk on the microphone and listening to [police radio] that night.

Listeners describe their hobby as an opportunity to make friends, or they describe how they enjoy being members of groups like Mountain News Net. The group started in the early 1990s with a handful or radio enthusiasts who met at a local restaurant, said founder Jim Richardson.

> I was living in the metro area at that point so I would say there was probably five or six of us initially, mostly those involved in law enforcement or dispatchers or public safety in one way or another. We literally met at a Village Inn to say, this is a cool concept.

Richardson said besides a love of listening, many Mountain News Net members share something else. They proudly share the commonality of working in (or having retired from) Public Safety jobs. Richardson himself worked as a paramedic and in other related jobs.

Scanner listening is clearly a technical hobby, but it is mostly about people. Scott Cochran is one of Jim Richardson's friends, and one of the original members of

Mountain News Net. “We're on there. Like, hey, I'm monitoring if I can help out, you know, everyone just kind of jumps on, you know.“

Jenny Taylor has close friends with whom she shares the hobby in rural Ohio. For her, belonging to the scanning community carries the added bonus of encouraging a deeper involvement in the small town where she lives.

> Down in the condos where my parents live, I heard a call one time in the middle of the night. One of the security alarm systems tripped and it sent a call into the police station. Well, here it was my mom and dad's neighbor. So that was kind of interesting. And so, I actually call her, and let her know I heard it on the scanner, and she's like, Yeah, it's absolutely true. That's pretty wild. So, in a way, you know, you can warn people, you know you're hearing it, as it happens.

While there is no doubt there are many people who look at scanning as a solo endeavor, the interviewees clearly show it is also a team sport.

Being a Part of Something Bigger

According to the interviewees, scanner listening also connects listeners to a broader reality. It makes them feel a part of the dramatic and the exciting. For some already in the public safety field, it was described as connecting with friends. But for others, such as a homebound disabled person, or the retiree who lives alone, the scanner may be one of the few connections to the outside world.

For veteran scanner listener Scott Cochran in Colorado, the hobby brings him closer to the real world outside his door.

> I've heard some bad calls. I've heard a couple officers shot on here. They didn't make it. … and one was an Adams County Sheriff's deputy who was memorialized on a plaque in front of the sheriff's office up in Brighton. Officer Deputy McLaughlin, and I'll never forget hearing that call back in the '80s. He went in on a domestic (dispute) and he walked up to the front porch and the next call out was shots fired and he didn't make it.

As several interviewees indicated, scanners connect people to the world with unfiltered events as they happen. It appears to give them a seat at the table that, in some ways, local news cannot match. The interviews made clear that scanner listening and sharing is a form of belonging to society at large through the stories of real people as they go through what may be the most challenging times in their lives.

Scanners and Citizenship

The interviews suggest that another facet of belonging, on a macro scale, is being an engaged citizen. A number of participants mentioned the importance of scanner reports for knowing what is happening in their communities, and as mentioned earlier, listening lets citizens hold public safety workers accountable. Sometimes the scanner just provides a link to help listeners get involved. Listener Jenny Taylor lives in a rural area and finds that listening to scanners helps her be positively involved in her community.

> If somebody escapes one of our nursing homes, we can be on the lookout so it can be a somewhat of a community-slash-public service. Um, although not to be abused. You know, going to a crash site or something like that. … I live, I border a park. It's called Marshall Park. It's a really popular park. … Let's say I hear on

> the scanner after dark they're looking for something, but they've been in this park here and that car doesn't show up. But then you're living at your home, and you see this car show up. You could actually just call in on the non-emergency line and say "you know, I was listening to this. I think the car you were looking for is actually back in that area now." … So, stuff like that.

Listener Shakima Thomas said police in the New Jersey city where she lives understand the value of scanner listening for citizens and apparently, they don't mind the increased accountability listeners bring. In fact, they actually encourage it:

> They had this … Citizens Police Academy, where they bring people in, and you kind of see how their operations play out behind the scenes. And they gave me the Radio Reference-dot-com website. They shared that with me. And … [they showed] scanner options. … We're engaged here in the community, and that's why we were different from other parts of the country that were experiencing situations like the George Floyd, um, thing that happened, and that's why I said, our police are different. We didn't have that that issue with anti-police or police, or anti-community. It's a whole different situation.

As noted, many public safety agencies don't hold a favorable view of scanner listeners, or are, at best ambivalent. Here we see an example of a police department that embraces and encourages scanner listening, and according to Thomas, the move seems to be part of a strategy to develop a better understanding between the department and citizens.

Summary

This section focused on the first broad category that emerged from analysis: the factors that motivate people to listen to scanner radios. These include personal safety, belonging to a group with shared interests, listening for news and listening for entertainment and excitement. It is not an exhaustive list of attractions to scanner listening, nor is it mutually exclusive, but it encompasses what arose from the interviews as important and pertinent to the participants. Scanner buffs listen for multiple reasons.

Unfolding Stories

Perhaps the most fascinating part of the interviews with scanner listeners was the sheer variety of shocking, weird and dramatic stories they heard while listening to the scanner. I did not dismiss them, as I have my own stories like these. One took place Christmas morning in 1995 while working the assignment at KCNC-TV. The scanner gave bits and pieces of something about a child who had died in Boulder, Colorado. That girl's name was Jon Benet Ramsey. There was the time in 1994 when a scanner listener gave a tip about more than a dozen firefighters trapped on Storm King Mountain by a wildfire. Fourteen died that day. In 1997, my first or second week at KNSD-TV in San Diego, the scanner broadcast something about a bunch of bodies at an upscale home in Orange County. Thirty-nine members of the Heaven's Gate cult had been found there, victims of mass suicide. These stories are as vivid in my memory today as they were then. Those experiences validated the connections and memories cited by many of the

interviewees. The interviews suggest this phenomenon of a deep and meaningful connection is not at all unusual for scanner listeners.

Eavesdropping on public safety communications might be seen by some people as a rather unusual hobby, but not by the interviewees. For many, it becomes less of a hobby and more of a way of life. Listeners like Curt Mann, a longtime hobbyist and owner of Denver Radio, carry scanner radios with them wherever they go, listening for hours every day. “It’s sort of like background music,” Mann said, noting that he has listened to scanners for so many years he can filter out what is not interesting and turn his attention back when there’s a call worthy of attention. It is not atypical for a scanner listener to have more than one radio, and to carry one around throughout the day. Much like our phones today, scanners seem to have an addictive quality. Almost like Pavlov’s dogs, whether we are using social media or listening to a scanner, we’re always waiting for that next treat.

Much has been written about media addiction, most recently about social media addiction, which is also referred to as problematic social media use, and compulsive social media use (Sun & Zhang, 2021). Social media addiction can have a variety of negative effects in many areas of a person’s life. Interestingly though, a study of internet addiction, social media addiction, digital game addiction, and smartphone addiction, found these addictions were a predictor of social connectedness (Savci & Aysan, 2017). Belonging, or social connectedness was also found to be factor among the scanner listener interviewees as mentioned earlier in the findings section. It is beyond the scope

of this study to examine whether scanner addiction is a real phenomenon, but there certainly are many amongst the interviewees who spend a lot of time listening.

Police calls are not the only thing these hobbyists monitor – there are fire calls, aviation channels, city workers, snowplow drivers, truckers, federal agents, highway construction crews and many other things. In rural Ohio, for example, Jenny Taylor said she is becoming increasingly interested in trains. "To me it's just cool because you don't realize all the switching that goes back and forth… in getting services from point A to point B." Jonathan Higgins (2020) is all about listening to trains. On the website Train Aficionado, he wrote that scanners are an essential piece of equipment for every railroad fan. Higgins said some of the common incidents that listeners can hear include automated warnings about things like "hot wheels, dragging equipment, car height, wide load, shifted load," and something called the "hotbox" (Para. 7).

For Taylor, the "gee whiz" factor is key to scanner listening. That is, hearing and perhaps living vicariously through the unusual, sometimes exciting, and often entertaining chatter available on the airwaves. In the end, it all comes down to stories, and the participants in this study shared some of those stories.

Tales from the Scanner

The interview data revealed that listening to scanners is very much about listening to stories told as they are happening. A prime example of this comes from listener Jenny Taylor – who recalled listening to reports of an unidentified flying object from her hometown in mid-Ohio.

> I think my weirdest thing yet was, um, they thought they spotted a UFO … outside one of our cities here, and that was kind of cool listening to that. And then it finally ended up a hot air balloon that somebody was sporting lights around, so it wasn't even the UFO at all. But that was kind of fun and weird. … you never know.

Taylor provided a copy of the scanner traffic audio from the UFO incident. Listening to the recording, it was clear police took it seriously, although there was a bit of laughter after one officer declared there was "no UFO, no drone and no aliens."

The Marshall Fire

As this is being written, almost a year has passed since a wildfire ravaged the parts of Boulder County including the municipalities of Louisville and Superior north of Denver. More than a thousand homes were destroyed and two people died (Swanson, 2022). Mountain News Net members were listening to this fire as it unfolded, including some who shared word of evacuations. News Net Dispatcher Mike Rickert remembered spotting the fire while driving on Interstate 76.

> I think it was coming back from Brighton that day, that was the fires on New Year's Eve last year, and I could see the smoke from Brighton out on I-76. And I think I was one of the first ones to notify everybody that you know something was … happening off in Boulder County and obviously that turned into a huge news story.

At this point, Mountain News Net Scanner members began tuning in and sharing information of the massive fire. Rickert said the blaze was typical of the kinds of big stories Mountain News Net shares.

> Updates were coming out constantly as we were getting information, the dispatchers are getting in … constantly because that situation was evolving rapidly. I mean a lot of us were listening to the fire creeping through. Retail complexes in Louisville and right up to the Louisville Police Department, but that situation evolved over a number of hours.

Rickert said he believes members of the Mountain News Net provided a public service to citizens, by reporting fire updates and evacuation information that fire agencies did not have the resources to report:

> The fires in Boulder, I mean they were trying to evacuate three entire towns all at once. So that information becomes critically important. And ... that's actually a good example, I think. You can't have a PIO [Public Information Officer] standing in front of the cameras the entire time the event is going on, so they're going to try and accumulate information as they can, and then have news conferences as they can. These [Mountain News Net] pages going out, while they don't go out to the general population, they do go out to the media, saying "hey, … the boulder fires this route is blocked off … the traffic's completely congested, look for other means of escape from the area." … To me is the very definition of a public service if the media has that information, then, they can pass it on to the public.

The North Fork Fire

Near the small town of Conifer, west of Denver, a controlled burn went out of control, fueled by high winds. The March 2012 blaze ended up spreading to more than 4,000 acres and destroyed 22 homes. (Gabbert, 2014). South Metro Fire's Eric Hurst says Mountain News Net provided a vital service that day by providing news tips on evacuations.

> Lower North Fork Fire might be an example of that, where News Net was getting information out about where the fire was, where the fire was going, and you know, unfortunately, that fire killed three residents who were still at home and didn't have time to escape. But as far as I remember, they were ahead of the game. And you got to think like if somebody's not pushing information [fire department officials] immediately when we're making that [evacuation] decision, it's going to take a while to get it to people.

As Public Information Officer, Hurst says getting an evacuation announcement sent out via phone to nearby residents and to the media can sometimes take "tens of minutes." Mountain News Net sometimes sends these reports out more quickly. That can be a good thing, but Hurst said it is also his job to confirm the News Net reports when the media calls to ask about them. That process can sometimes delay his own efforts to make announcements to all media about evacuations and other fire-related issues. Fire scenes are often chaotic, and Public Information Officers such as Hurst end up dealing with a lot of information in a short period of time.

The Hoax

Hoaxes do happen. Listener Shakima Thomas overheard what she thought was a wounded police officer, but the story turned out much different.

> One day a guy came on while I was listening, and he said that he was a police officer down. He needed help, and a guy pulled the gun out on him, and he's chasing him, and all the police were trying to find his location, and he … said he was on a street … It's a county road actually that goes into three different cities. So, all the police rushed over to where they thought this guy could have been, and it was a hoax. It was someone who came on and played around with the police, and I was like Wow! … Why, why would somebody do that? People, anyway? That happens in just about every city I've worked in once in a while somebody will pull that. It's not uncommon.

After listening to the fake report, Thomas said she learned that false radio reports can result in a fine and jail time for the perpetrator. In Arizona, for example, state statutes dictate that those who "recklessly interrupt, impede or otherwise directly interfere with emergency communications" may be charged with a class 6 felony.

The Rescue

Listening can certainly satisfy the curiosity of what goes on in the everyday world of public safety. There are also moments of drama and even terror as real-life stories unfold in real time. Mountain News Net member Curt Mann recalls hearing a Jefferson County Sherriff's deputy caught in a wildfire.

> And the officers were driving around in the area and making sure people were safe and so on, and I heard an officer on the Jeffco channel call in saying, "131 I'm in trouble, I need help." … He had, his vision was obscure because of smoke, and he drove into a ditch and couldn't get out and the fire was coming up to him. And another officer was nearby and came to his rescue.

Mann said this call was particularly unusual on a police radio, because he rarely hears an officer asking for help, saying simply: "You don't hear that on police radio." When asked why, Mann replied: "Well it's a little bit of a macho thing. But it's also not wanting to be dramatic, overly dramatic. But he knew that he … was on the verge of serious injury or death." Fortunately, this incident had a happy ending when the officer was rescued. Mann said he has been listening to scanners for decades. "For me, it's knowing what's going on around me and also just … monitoring how well our … taxpayer dollars are being used."

The Police Chase

As mentioned above, we live at a time where is a seemingly endless supply of true crime series airing on television, true crime podcasts are flourishing with detective mysteries, and true crime books are among the top sellers in the bookstores. In some ways, police scanners are the ultimate way to experience the emotion and excitement of true crime in real time—the entertainment factor. You could say David Triska, a Mountain News Net member, was glued to his scanner early one morning in the late 1980s when he heard a chase: "The Denver police department, they were chasing a car. From the city of Denver, and I listened to the entire chase all the way up to Wyoming on

Interstate 25. It was like holy cow! … and I'm thinking to myself, why don't they just arrest these people?" The pursuit lasted at least two and a-half hours, and finally ended when Nebraska police stopped the vehicle. Triska experienced something arguably not much different from a true crime podcast, with a basic narrative, gradually unfolding, a protagonist, conflict and a resolution.

The Chuck E. Cheese Killings

From the simplest report of a fender-bender to the most dramatic events, stories are part and parcel of the police scanner experience. On December 14, 1993, Dave Sjodin was driving home from work when he heard the call of a shooting at a Chuck E. Cheese Pizza Restaurant nearby. It was a brutal multiple killing. A former cook angered over his dismissal, hid in a restroom until closing when he emerged and opened fire (Patterson, 2014). Four restaurant employees were murdered that evening. Sjodin said he stopped across the street and watched and listened as the events unfolded: "I got there after the first fire department and police units … and I beat the medical helicopters down." From the parking lot across the street, Sjodin was able to piece together what had happened.

Interestingly enough, one memory that stands out for Sjodin involved the behavior of a reporter at a police news conference near the scene of the shooting.

> There were some reporters there, and there was a bunch of other people there and people kept pushing forward and one reporter, he wasn't… [he said] back up! This is for us, or something … to that effect, like we had no business [there] … knowing that the press conference was for the press ... so I just thought about that the other day that he was kind of a jerk.

This story would prove to have a long tail. The man convicted in this case, Nathan Dunlap, later became a key figure in a fight over the legality of the death penalty in Colorado. His sentence was eventually commuted to life in prison (Kenney, 2020).

Multiple Shootings

Some who listen to police scanners are surprised at what is happening in their own neighborhoods. Shakima Thomas was shocked at what she heard not far from her New Jersey home. “Oh, my gosh! It was terrible. A Sunday night, there were eight shootings back-to-back in Newark and I couldn’t believe it was happening.”

Thomas said she’d heard about problems with violence in the area but did not realize how bad it really was. As an activist, Thomas said one reason she listens to scanners is to see for herself whether the crime statistics provided by police are accurate. She’s so into the hobby she’s taken lessons from the Scanner School, operated by another one of the interviewees, Phil Lichtenburger.

Columbine

For some, scanner listening is “kind of like watching a TV reality show,” said Curt Mann. Whether you agree with that or not – what cannot be denied is that these stories are indeed real. They may not tell the whole story, but they usually provide a good overview of what happened. Once in a while, a big story comes along that stays in the memories of scanner listeners for years or even decades. A sad example of this is the tragic mass shooting at Columbine High School outside Denver in 1999. Again, I experienced this at the time, following Mountain News Net (as well as the TV coverage)

that day in the KKTV Newsroom, about 40 miles south of Columbine in Colorado Springs. It was a day I will never forget. For members of Colorado's Mountain News Net and Founder Jim Richardson it was a very busy and contentious day as the events were shared with members via pager. He described the care Mountain New Net dispatchers used before sharing any information.

> I mean I think most of the dispatchers that worked during Columbine will remember the pages that were sent out, will remember the amount of internal strife maybe, or the internal discussions that we were having about how much we should send, how much we should not send, certainly don't expose, like, locations of the SWAT team. Don't expose locations. So, I mean I always remember Columbine as a monumental event for Mountain News Net but there's not many others that that really sort of rise to that level or rise to that significance.

Richardson said he thinks Mountain News Net handled Columbine responsibly and that what was *not* shared by the group was just as important as what *was* shared. Dispatchers were careful not to report victims' names or other information that could put people at risk. " I feel like that was a good example of. … timely, accurate reporting, but also sensitive to the … understanding of the situation and not having folks or families or loved ones learn from us of decedents."

Mountain News Net member Dave Hanna said. "It was a sad day. I ended up listening to a Jefferson County Sherriff's office radio." Hanna listened as officers tried to locate a seriously wounded teacher who died before he could be rescued. The day was full of stories like that.

The Journalist at the Theater Shooting

CBS Radio Correspondent Lee Frank relies on the scanner for breaking news. That was particularly true on July 20, 2012, when he was tipped off by Mountain News Net to a shooting at a theater in Aurora, Colorado. Carrying tear gas and dressed in combat-style gear, James Holmes entered the Century City movie theater and opened fire (Hindi, 2022).

> And I unfortunately was one of the first reporters on that as a CBS news … radio correspondent. I was packing for a trip that night …The first alert came from Mountain News Net. I then went to the scanners and then I was listening to the same thing that Mountain News Net scanner guys were listening to. And ... one of the things that we heard was the chaos and the fact of firefighters were being held back on the edge of the crime scene not able to get in and… evacuate the wounded people … as we later find out because of communication issues between police and fire and some command decisions at the scene. There were badly wounded victims who were being put in the back of a police car and driven to the hospital. that's the sort of thing that a reporter on the scene can see. That's the sort of thing that if you hear it on the scanner, you can report it and it was not [the city of] Aurora at its finest and that's how, it'll, we correct the [future] mistakes.

In the end, 12 people were murdered, and 70 others hurt (Hindi, 2022). ”An experienced reporter can pick up a lot by listening to the scanner and being on the scene.” Frank said.

Bulldozer Rampage

Although the majority of messages broadcast on police scanners are routine, it is the exceptional stories that seem to make the wait worthwhile, judging by what the interviewees said. These incidents can be exciting or dramatic, life-or death, or heroic. But some stories stood out for being just plain weird. Wayne Harrison is a retired journalist who worked for many years at KMGH-TV in Denver. After receiving a tip from Mountain News Net, he listened to a call that was weird indeed—but also deadly. "I couldn't believe it when they said this guy's driving a bulldozer and knocking down buildings in the little community," Harrison said. The 2004 incident in Granby, Colorado, kept Harrison busy as he set up coverage from his post on the assignment desk at KMGH. According to an Associated Press report picked up by NBC News (Associated Press, 2004), the muffler shop owner driving an armor-plated bulldozer through the small town would end up taking his own life. Police cars were flattened and buildings damaged, but no one else was hurt.

Tornadoes and Ice Storms

Scanner listener Jenny Taylor lives where weather can change quickly. She frequently listens when there are reports of tornadoes:

> You know, when they spot the funnel, they … get a little excited. It's like, is it on the ground, and they'll describe what they're seeing, so that can be kind of intense. They're not necessarily scared. But that's a big deal around here in these corn

fields. Oh, yeah, yeah, I mean, we found a few warnings this year more than we've had in the past. So, weather's a big thing around here.

In the winter, Taylor said she frequently listens to snowplows to find out which roads are passable during ice storms, which are common to the region.

Out On the Highway

Mountain News Net member Bruce Blackburn lives in Western Colorado, covering Grand Junction and the vast rural areas surrounding the city. He shares reports on a lot of wildfires and search and rescue missions. If there's trouble on the highways, it's news. But it has to be serious trouble.

> If they're out replacing guardrail, I can ignore it. I've developed the ability. But … this spring we had a coroner in De Beque Canyon. It was freezing almost every evening and there were 4 to 5 cars spinning out and hitting the canyon wall every evening. That's a big deal. And I would put those out [News Net reports] every evening, you know.

Mountain News Net tries to find dispatchers around the state to provide broad coverage. This can be particularly useful for media on the other side of Colorado, who can't hear scanner reports from Grand Junction.

Martial Arts Escape

Many of the listeners interviewed commented on the unpredictability of scanner traffic; one really cannot guess what may come next. Dave Sjodin found this out firsthand when he overheard officers tracking a uniquely skilled escaped prisoner…

> There was an Arapahoe county sheriff and there was an ... emergency room … off of Jordan and Arapahoe Road and they took a prisoner from the Arapahoe County jail. Something happened, he broke an arm, and this guy was a martial arts expert, so … I think they put a cap on his arm, and they couldn't put handcuffs on him. So, he escaped from the deputy.

Sjodin said he spent an hour on the phone with a Mountain News Net dispatcher listening to the manhunt and eventual capture of the martial arts expert. They shared the unfolding event with Mountain News Net members.

The Sad Rescue and the Cry for Help

Journalists routinely listen to scanners, but that does not mean every event becomes a matter of routine. Former KWGN-TV Assignment Editor Mindy Dionne-Wyatt still gets emotional when recounting a failed flood rescue.

> It was one of those torrential downpours … there was flooding. And a woman … was trying to get out of her car. I think and they told her to stay, but she panicked, I think, and she was getting sucked into like the … I don't know if it's storm drain, but it was like she was getting sucked in, and the fire department showed up and a firefighter went in to help her, got her out and then he went under. And I remember sitting on the desk listening to these firefighters like, we don't know where he is, we can't see him, we don't know where he is, we're looking for him. And I'm just sitting there going oh my God! Oh my God! Oh my God! And so, obviously we sent a crew, but … his body came up, like … maybe a mile down.

Wyatt recalls with similar emotion a radio call involving a police officer who had just been shot.

> A police officer's partner, I believe, got shot and he was screaming into his radio, and it went across the scanner, and he was just like, "Officer down, officer down I need somebody here now! Get somebody here now!" And He was like "hang on buddy," he's like, "officer down! … I was just like oh my God, I can't believe I'm hearing this … and he didn't make it so that was a huge thing.

Wyatt said she can still recall the funerals for both the fallen officer and the firefighter who drown in the failed rescue.

Summary

There are many more examples of stories like these, but these are sufficient to demonstrate the point – scanner listening is about unfolding stories. Throughout the interviews, stories helped them understand the world by providing frames of reference that were used when they encountered similar situations in the future.

Gatekeeping of Content Shared by Scanner Groups

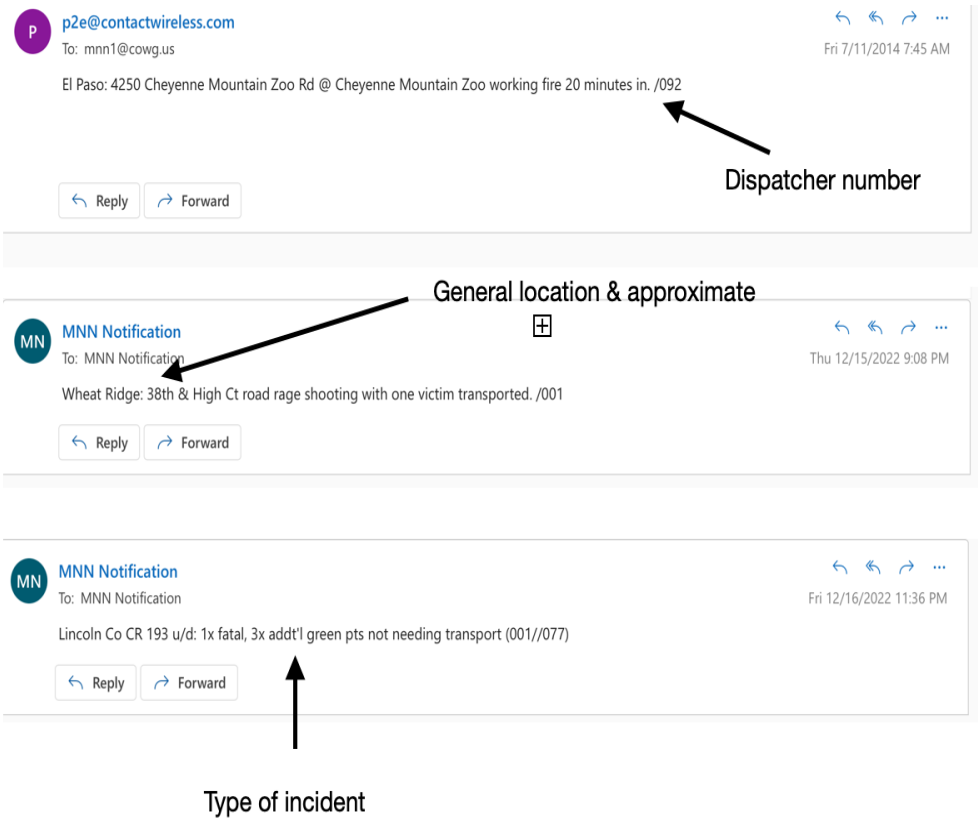
Colorado's Mountain News Net exists in large part to share reports heard over the scanner, promising members to do their best to send out accurate, unbiased information. Many of the members and journalists interviewed agreed that the Net has earned a solid reputation over 30 years of operation. The Mountain News Net created an information stream, first delivered over alphanumeric pagers, now delivered in a variety of ways. It is clear from interviews with members, journalists and others that the core group of

dispatchers who actually share the content are concerned about making sure basic guidelines are followed, much as a news agency would to ensure credibility.

Years before sharing the creation of web-based user-generated content, Mountain Net members were producing their news feed. This is a look at the feed as it exists today:

Figure 1

Sample Incident Notifications From Mountain News Net



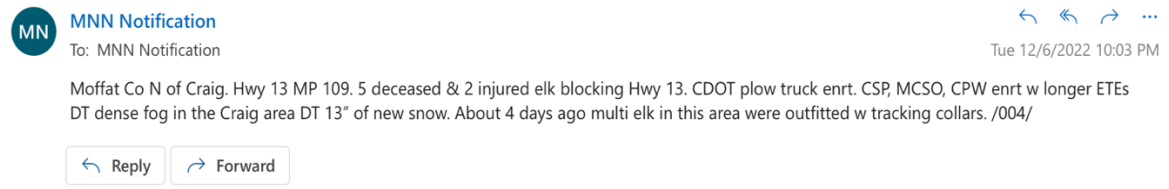
An individual who first listens to the scanner might find it confusing. In fact, some of the material shared by Mountain News Net might be confusing to the uninitiated because of the way the messages are formatted. The messages are designed to be brief, much like radio transmissions. They typically begin with the location, type of incident

and the number of the dispatcher who sent the message. The language is designed for brevity: “1x fatal,” “3c addt’l green pts not needing transport.” The bottom item in Figure 1 describes a fatal car accident on Lincoln County Road 193, with one person dead, and three presumably not injured or treated at the scene. On this particular message, two dispatchers 001 (James Richardson) and Dispatcher 77 worked together on the post. Note how the dispatcher’s number is displayed on the incident report so members can find who prepared the material.

In many cases, the more significant the incident, the more detailed the incident report will be as in figure 2.

Figure 2

Notification of a major incident on Mountain News Net



This incident notification gives a highway milepost location, explains that five people died and two elk were injured, notes that a snowplow is enroute, mentions weather conditions, and even includes a side note on elk tracking collars. The abbreviations, mentions of law enforcement agencies and overall format suggest a formal, professional organizational system. From a journalistic perspective, this is a big story, and Mountain News Net is providing a lot of details that would help reporters confirm the story and track down more information.

How Mountain News Net Works

From its humble beginnings at an informal meeting in a coffee shop, Mountain News Net has survived for thirty years and, according to its founder, has for years maintained a membership of about 500 people across Colorado. Jim Richardson said the News Net grew organically.

> We didn't really market it that much for the most part. It was very much a word of mouth. We started with 10, and we had 20, and we had 30 members. It was exclusively alphanumeric based at that point, and with the one paging company. You had to actually get a pager and you had to actually subscribe to that one company. … Very little marketing, very little real promotion because in the end it didn't really matter to me if we had 20 or 200 or 2000 members for the most part. We tried to branch out a little bit because we thought it would be nice to have some people that are listening outdoors [rather] than downtown. We tried to ... we did some fliers in Radio Shack stores and those types of things. We got very little interest and little participation, but it helped some. We really put it on cruise control to tell you the truth for the most part."

As mentioned, News Net notifications were first delivered over alphanumeric pagers. A select team of members were chosen to be dispatchers, the gatekeepers of what went out over the Mountain News Net. Scott Cochran was an enthusiastic early adopter.

> I joined their network, got me a pager. And I was like, wow, I'm like, really someone now and I'm like, are you kidding me? Like news over this thing. Like, it was crazy these alphanumeric pagers from PageNet back in the day and, and I

got hooked. And I called in enough really good stuff where Jim like sent me a message to my personal pager. … Jim Mountain News Net 001, you know, the King. And he said, "hey, I'd like you to be a dispatcher for us." And … he goes, "you know, it's not paid. But we have a lot of other perks," and I was like, I didn't care. And so, I did it.

Dispatchers like Cochran were given paging terminals to send out incident notifications to the entire group.

It was called an Alphamate terminal. … You'd plug it into your phone line at home and I had my next to my bed in the bedroom. My wife's like, "What is all this technology stuff you're bringing?" I go, "man, I'm a dispatcher for Mountain News Net now," I go, "I can type straight out … on the Internet and you hit send or whatever on this Alphamate terminal." And it would go through the modem and make all the modem noises that would send it out, you see your own message come out to like five, 600 people in the Mountain News Net group. You're like man, I have made it in life, you know, it was crazy.

For the first several years, Mountain News Net operated a call-in line to report incidents heard over the scanner. Dispatchers were, and are today, the gatekeepers of the information that goes out in Mountain News Net.

Gatekeeping the Mountain News Net Feed

Members of the Mountain News Net don't share every call they hear on the police scanners. Dispatchers are the editors, if you will, of the feed. The decisions whether to send or hold an item affect not only the 500 or so members of Mountain News Net, but

also impact a number of news outlets that subscribe to the feed. Gatekeeping for the News Net is largely a matter of common sense, and what journalists might call news judgement. Veteran News Net Member Steve Davis explained what kinds of things are typically shared:

> I think that you know to kind of put it in a nutshell, as far as … your top-ten types of calls, if you will, anything that … you, would consider breaking news. And, in my opinion, what I think they would consider breaking news is major car accidents, any kind of shooting, gunshot wounds, any kind of structure fire. Any kind of wildland fire, I think that any kind of mandatory evacuation, that type of thing. … If you turn your TV on and [it] said breaking news, that's the kind of stories. I think they're very in tune with the with the news media as far as that. They're not going to put in there any fender bender crashes.

What is Posted, What is Not

Mountain News Net members can find just about any kind of breaking news item here, from shootings to car accidents to industrial accidents to plane crashes. But there is much that won't typically be sent out. Routine fights, crashes, suicides, domestic disputes with no injuries, non-fatal stabbings, traffic stops and much of the routine and rather unexciting items are left out. Here we see an obvious similarity to journalistic news values, particularly *relevance* (Harcup & O'Neill, 2001). What is left out of the feed is one way the News Net dispatchers exercise what could be considered editorial control over their feed.

The idea for Mountain News Net, according to founder Jim Richardson, came from memories of sharing services such as New York's Gong Club, which relayed major fire incidents over a two-way radio channel and also provided canteen service to firefighters. Richardson said since there weren't many fires in Denver and most of Colorado, the News Net was designed to share reports on other kinds of incidents as well, such as weather, police calls, and mountain rescues. Early on, Richardson put together a short list of what might be considered editorial guidelines for dispatchers, outlining what should and should not be shared over the Mountain News Net feed.

> We established an initial criteria, what we considered newsworthy criteria. Of course, that was working fires. As far as car accidents were concerned, we wanted to only page the ones that involved extrication or multiple patients or documented serious injury that we were hearing. Then we expanded into some police incidents that wouldn't sacrifice officer safety, for example. … Then we branched out and figuring the state that it is, we did both search and rescue incidents, and we did severe weather. Not just a warning and a watch type level, but it's truly happening, severe weather, heads up. That was probably the initial criteria that we looked at.

Dispatcher and retired firefighter Bob Falcone is a Mountain News Net dispatcher in Colorado Springs. He likes to use the phrase "radio discipline" when deciding what to send out on the News Net, and what to wait on, or ignore.

> Any fire that's really a fire, you know a working house fire, especially because the multiple alarms, that's a big event—that's a big deal. Wildland fire, especially

> nowadays. You know a lot of this is being able to listen to the details of the dispatch traffic and then still wait till they get on scene. Every single car wreck is nothing for me. Now if they call for an engine, a truck, heavy rescue, and three more ambulances—OK now we're getting into something newsworthy. It's a lot of discretion on the dispatcher.

The Gruesome and The Tasteless

It is not common to see bloody crime scenes in traditional media work (see Brighton, 2013). There tends to be a sense of what is acceptable in terms of gory battle scenes or car crashes, and what may be in poor taste, like perhaps trying to interview someone during a funeral. This is something Mountain News Dispatchers seem to understand as well, says member Scott Cochran.

> Another big rule [when] you're talking about integrity is to talk about anything real personal going on at the scene, or pictures that some member might post up saying "hey there's wreck at 120th and Washington in Northglenn. Look at this picture I took," and it shows a lady basically mangled or smashed up against the dashboard. We're not going to post that. I mean it's not right anyways and maybe the family wasn't even notified. It's just kind of shock news.

In addition to working with Mountain News Net, Cochran operates a website called *5280* which frequently posts images from fires or other incidents.

Helping the News Media

News Net member Mike Rickert said the criteria for deciding what to send out as a notification is very much like what might be broadcast on the local television news. Rickert said he views Mountain News Net as an aggregator for raw information that can be used as tips for the news media.

> I think what they're looking for is the kinds of things the media is going to be interested in. A traffic accident not so much. A rollover with entrapment that's a different story, that becomes page-worthy for the Mountain News Net. Gunshots in the area, not so much. Ahh, confirmed GSW [gunshot wound] victims, that's a different story. And I hate to say it, but it is an "if it bleeds it leads" kind of thing. … I think that's what it is. If it's a mass casualty incident. If it's … not your run-of-the-mill everyday kind of event, that's what tends to make it, I think, a bit more page-worthy with Mountain News Net.

Scanner listener Dave Sjodin agrees. He considers the Mountain News Net feed to be a "force multiplier," adding extra sets of "eyes and ears" to help understaffed news outlets catch important stories. Doug Hoffacker worked for decades as an assignment editor at KUSA and later KCNC in Denver where he made substantial use of the Mountain News Net feed. He said it was particularly helpful in deciding which stories were worth covering when resources were tight.

> "They've been pretty good about, you know, the seriousness of something going on... when you only had one person [photojournalist available] to go check it out and maybe they were on something big across town that we you knew was going

> to be a story. Your producer didn't want to say, oh, no, we have that live shot at 6:05, you can't just send him over there on Sunday. Maybe it needs to be a certain thing. So, and the Mountain News Net people were helpful to try to get us, help us to realize if it was [a real story] or not."

For the Mountain News Net Dispatcher, knowing what to share is important – and so is knowing what not to share. News Net member Lloyd Kimball said it is important to respect the privacy of victims.

> Obviously, specifics about people, … anything you know personally identifiable information is always the big one. … Most of it's going to be things that would involve officer safety issues. And then I would say some of the other stuff a lot of times I'll let it develop a little bit so that it's more likely that it's going to get out there.

Most of the dispatchers mentioned the importance of waiting to check the credibility of a scanner report before sending it out over Mountain News Net. But some situations make the decision of when to share much more difficult. For instance, Falcone was listening in 2007 when a gunman walked into the New Life Church in Colorado Springs, killing two people, and injuring three. The gunman was eventually shot by a church security guard (Johnson & Frosch, 2007). For Falcone, this incident required immediate action.

> When we had the shooting at New Life Church some years ago. I watched that entire thing unfold, and I was putting that out as fast as I could. But to me that was different situation here, you had somebody running around with a gun

> shooting at people and I wanted people to stay the hell away from there. And I'm listening to the fire channels, and, you know, the fire department trying to get to a victim in the parking lot.

Falcone is describing the same kinds of situations that occur in newsrooms every day. For TV producers and assignment editors, breaking news is particularly demanding and tricky. It is difficult to decide when to report something and when to hold back. And as Doug Hoffacker noted, there is always concern about moving valuable news crews from one story to another. In terms of news values, the journalist must weigh the *magnitude* and *timeliness* of the story against the risks of reporting it, as some of the interviewees noted. A big part of these decisions is quickly verifying the information at hand. Mountain News Net Member Steve Davis, who is also Police Chief of Mountain View, Colorado, said News Net dispatchers are very careful about what they report.

> The one thing that Jim [Richardson] is very cautious of, is saying somebody died or not, because a lot of pages you see will say CSP [Colorado State Patrol] is reporting fatal on scene. Yet, the media will run it as breaking news and say, "we're not sure of the injuries without them first verifying it with CSP." I get that. ... I have a lot of confidence in Jim, and I think if Jim puts it out, if I see … his [dispatcher] number—then it must be true. But I don't know if the media is as trusting as I am. He's been doing it a long time. So that's verifiable information.

Accuracy and credibility

Mistakes happen, and Mountain News Net occasionally gets it wrong. Davis said he's made mistakes on Mountain News Net, and one of the things he admires is the group's willingness to issue corrections.

> You'll see a few corrections in Jim's pages from people where he'll say "we got some erroneous information." And I'm sure that drives him crazy. But, for me, when I call something in, I'm very careful about what I say because I know at the end of that page it's going to have that little 0047 [Davis' dispatch number] on there, and everybody's going to know exactly where that came from. Your signature's on there so if it truly wasn't an active shooter, and training only, you have the crow to eat when Jim puts it out there that this was reported as an active shooter. It's not; it's training only.

Many of the interviewees mentioned the importance of accuracy and credibility in the work of the Mountain News Net. Through the interviews, it was obvious that reputation matters for this group because it builds trust among the public safety agencies and with the news media members who rely on News Net content.

Bias

On the issue of bias, some interviewees in this study, including Mike Rickert, said the Mountain News Net is "just the facts" with no bias in the reporting.

> Mountain News [Net] … has no political affiliation whatsoever. So, I don't think there's, I've never seen any bias there with anything. I think that's one of the critical components of being a public service. Look, we're going to feed you

information. We're not going to edit it at all, we're going to give it to you as we heard it.

Other members however, including founder Jim Richardson, said the Mountain News Net as an organization is pro-law enforcement and public safety because many of its members are in those professions.

> "Definitely … you have to consider that most if not all of our folks, all of our dispatchers, are either current or former police, fire, law enforcement; one way or another they're involved in the business … or have been involved in the business. So, we are definitely very, you know, sort of huge … public safety proponents. We also believe in transparency, so we believe in the safe, accurate reporting of incidents.

Richardson, and another top Mountain News Net Dispatcher Bob Falcone, say the pro-public safety nature of the group does not typically show up in the news feed: "You rarely ever see any opinions on there. Now privately amongst ourselves we may, you know, question what's going on," Falcone said.

Scott Cochran cited an example of what might not be reported if an incident could negatively reflect on a law enforcement officer. The incident involved a sheriff's deputy whose three-year-old daughter died in a gun accident in the family home. The officer and his wife were later charged with unlawful storage of a firearm in the tragedy. Adams County radio is encrypted, so News Net did not catch the original call. But hypothetically, had he heard the call, Cochran said he probably would have reported the accidental shooting, but the story would end there.

> You might page the call out, but we really don't follow up with it and say, Hey, Officer charged or whatever, it's not really an incident. But … we do try to paint law enforcement or firefighter services in a good light.

To be clear, Mountain News Net usually doesn't usually report long-term follow-up stories once the original incident is over. So, it is unlikely the follow-up would have been sent out even if there weren't a law enforcement officer involved.

The journalists who worked with Mountain News Net said the group consistently issues accurate reports and has earned their trust. News organizations say they use Mountain News Net content as tips to be verified before broadcasting, so any bias or factual error could be edited at that level.

Mountain News Net's pro-public safety stance might be revealed in its feed in two ways: what is not reported, and what is reported that relates to the public safety community. For example, Richardson said, the Mountain News Net will report positive stories about the public safety community.

> There's a little bit of human interest. … in terms of there's a significant event involving a fire department or any EMS agency or a sheriff's office and … especially if it's something that we can sort of throw a positive light on a department, we will … try to send that. Unfortunately, we send the … line of duty deaths and officer-involved shootings and things like that, but we will also even work at [using] more sensitivity on those situations. and hold off till we get more accurate information. Something like a barricade, or a SWAT incident, or something that could put law enforcement at risk we will either not page it, or we

> will page it very generically so that we don't put law enforcement, or what we consider to be our partners, at risk. So, you won't see … there's a SWAT incident with possible hostages at 123 Main Street. We're not going to do that. We might say there's a barricade affecting traffic in the 100 block of Main Street, something like that. We're going to become more generic.

Here Mountain News Net seems to be taking the audience into consideration. With a significant number of public safety workers as members, to some extent, the group tailors content for that audience.

FlagScanner

There are many organizations involved in sharing information gleaned from the scanner. Some are volunteer not-for-profit groups, while others run businesses around incident notification. The operator of a scanner incident reporting business FlagScanner.com, Chad Black, uses volunteer "reporters" who act as dispatchers much like those who work for Mountain News Net. The former television journalist said:

> I was realizing just how much stuff happened in this quiet mountain town [Flagstaff, Arizona] and, granted this is, you know, 2006 … that never made the paper that people were just completely oblivious to. And so, I started FlagScanner in 2008 and all it was, there was just an online scanner. You know, I plugged in my police scanners, and everybody could listen to it. We really turned the page in 2010 … It went from being just a site where we were just broadcasting live audio to actually a blogging and incident log site. And that started with the Schultz fire in 2010 and our following just blew up overnight, because there was no adequate

> coverage in Flagstaff for big events like that. And I think we went from just on Facebook and Twitter alone like 3,000 followers to 20,000 followers in a matter of 48 hours. And that's pretty much how it all started, it all went from there and … it's grown. … The business model has changed a handful of times since then, but the mission has been the same. We preach that … an informed … public is a safer public. And we're just, we're filling a void, where we still feel to this day, there is inadequate … news coverage for the Flagstaff region.

Black said the goal is to eventually make money with the site, but as of the time of this interview, FlagScanner remained unprofitable. While Black is clear that he believes FlagScanner is a legitimate news provider, one local journalist doesn't agree. Dave Zorn, a "one-man-band" radio reporter at KAFF in Flagstaff, said FlagScanner often does more harm than good.

> When I first moved up here, he [Chad Black] was one of the first guys I reached out to because he had a lot of followers, because I was told there was a void here, a little bit, of local news. He kind of filled that void at the time. Which is all fine and good. I'm like, well, you know he's got all these followers, I'd be dumb not to see if we can't hook up and … maybe do something. But I told him … In my career there's dangers, by taking scanner traffic as 100 percent truth right off the bat. And I explained it to him, we talked a couple times, and it wasn't going to go anywhere, there was no cracking that egg. I said alright, but I'd hate to be you when you get it wrong.

Zorn said, “I’m only trying to help him, this could make his business better.” The answer according to Zorn, is to wait longer to verify information before sending it out. Meanwhile, Black said he’d listened to his critics and tightened the editorial guidelines for what goes out on the FlagScanner feed.

> We remodeled our policies and procedures guide for the oncoming reporters. And we are basically, … we have a few very strict rules, and if that fits those guidelines, um, it can be posted. We never post medical incidents that are taking place at personal addresses like home addresses. We try to keep this stuff newsworthy, but we're also an instant log service, you know we're a police log. … We typically don't post suicidal … calls. We don't post calls that are taking place at nursing homes or at schools. We've learned our lesson that way, we're not trying to incite panic. And there are exceptions to all those rules if there's a mass shooting or there's something breaking that concerns the public, then we'll post it. But generally, we’ll post anything as long as … it doesn't violate a couple of our rules, like I mentioned.

In a small town with few sources of news, rumors can spread. If a woman passes out in the Whole Foods parking lot, Black said, as the story spreads it may get blown out of proportion and people call FlagScanner to find out what is happening. Explaining everyday incidents and dispelling rumor is “half the job,” he said. So, while some of FlagScanner’s posts are clearly minor routine incidents, “if it draws attention from the general public, then we will post it.”

Black said even though he gets a lot of heat from competitors, he encourages his followers to check out other news sites. He admits scanner traffic can be wrong, and sometimes they have to make corrections if wrong information goes out on the feed.

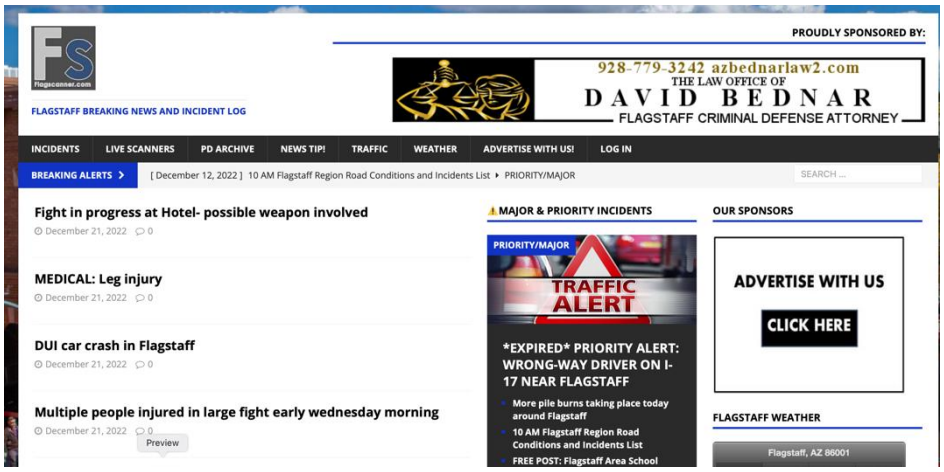
> "So, we do have to backpedal, for lack of a better term, sometimes when we post something because the scene has evolved or it's not quite what it was as dispatched. You know everything that we're getting is essentially third-hand information it's coming from a 911 caller and then it goes to a dispatcher and then it goes from the dispatcher to my ears and my reporters' ears."

How Flagscanner Works

FlagScanner.com puts its content on a website, which is supported through advertising as shown in figure 3. It also shares content on social media, most likely to drive traffic to the website. Each incident is accessible from a link on the front page. Clicking the link opens the window to a complete account of an incident as long as you are a paid subscriber at $3.99 per month as shown in figure 4. Paying customers can also access a live stream from of the local scanner and something called the Flagstaff PD archive. A ticker that runs across the top of the screen allows users to access "breaking news alerts" for free. Weather is also provided free.

Figure 3

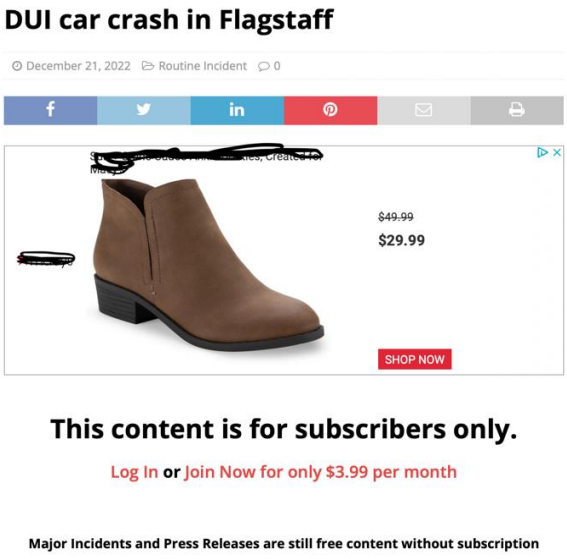
Flagscanner.com Website as Seen in December 2022



Based on personal experience, the content on FlagScanner and Mountain News Net tends to be similar. I would agree with Dave Zorn's concerns that FlagScanner should sometimes wait to verify scanner reports before sending them out. Even so, FlagScanner is frequently quick to report major breaking news such as crashes or closures on the freeways, fires and shootings

Figure 4

Flagscanner Offers Some Material for Free, And Some Behind a Paywall, as Shown



Other Incident Notification Services

Scanner listeners in and around Bakersfield, California, have at least three Facebook based groups with which to share information. Former news producer Micayla Elliott-Smith works with all three, Kern County Scanner Club, Bakersfield Scanners LIVE and Scanner News Now. According to Facebook, these three groups have a total of more than 60,000 members. Elliott-Smith said the groups provide a way for people to look out for each other:

> There's a lot of people on all three of them, but all we do is just, whenever anything comes up in the scanner, we go straight to the scanner group, and we just basically just type whatever we're hearing—2-11 armed robbery, you know. We live in a very crime-ridden area.

Elliott-Smith said the Facebook groups help her know what's going on, help keep her family safe and are good for those who are "a little nosy." Since these scanner groups are private, it is hard to judge what kind of editorial control might be used to choose what is shared and to ensure some level of accuracy. If, as Elliott-Smith describes, users simply type in what they hear, the reliability of the reports is likely to vary quite a bit.

Whom do you trust?

A sort of cottage industry has emerged over the years as more groups have started sharing scanner content. Many of these groups would consider what they provide to be a news service. In fact, for some of those interviewed, scanners are their major news source, just as social media has become a major news source for many. According to the Pew Research Center (Liedke & Matsa, 2022) 50 percent of Americans turn to social media for news "sometimes," or "often" (para 1).

The trust factor is also an issue. Scanner listeners interviewed for this project had different views as to the accuracy and reliability of scanner reports vs. journalistic reporting. Jenny Taylor, for example, said she worries about spin.

> I think sometimes the news [journalist] misinterprets, and I don't think they always mean to put a twist on things, but some things they report I don't feel are necessarily true if it's based on a [scanner] call that I've personally heard. But then, you know, who knows? After that [scanner] call, then what really happens when investigations and such get started? So, I think it can probably go both ways. But I'm more apt to listen to my coverage, and, you know accept that as truth, I think.

Shane Anthony is a veteran journalist who has been listening to scanners for decades, and while he sees the usefulness in sharing scanner content, he said it is not always reliable.

> Let me put it this way, as stories develop rapidly and unfold rapidly there's often disinformation over the scanners, and that happens even within the law enforcement communities and with all first responders. Where ... they get … initial calls of three shooters at a location and it boils down to one, you know what I mean? A [report saying a] fire is traveling north to south, and in fact is moving the opposite direction or whatever, so do they get stuff wrong, but it's not like rampant disinformation. Media organizations don't like to report stuff directly off the scanners, because [it's] not always the most reliable source for information, particularly in breaking unfolding dynamic situations.

Listener Macayla Elliott-Smith said she knows the scanner may not give the entire story, but at least "you're getting a warning" of something that may be important. Having worked in local news, Elliott-Smith said in more than one case she's heard from firefighter friends who told her that initial scanner reports of incidents were right, while the official news release that came out later was inaccurate.

Scanner Listeners as Citizen Journalists

For many years now, since the advent of internet distribution, virtually anyone with a computer, a streaming setup, or a video camera can call themselves a citizen journalist. The definition of the term remains a bit fuzzy, but Hayes et al. (2007) are among the scholars who have tried to pin down what sets a real journalist apart from the

crowd. They suggest that credibility is a major determining factor, based on the broad journalistic values of accountability, authenticity and autonomy.

The sample group of scanner listeners, journalists and public safety officials who participated in this project, many said that Mountain News Net members could be considered citizen journalists – to varying degrees. Curt Mann said, "I think they are they're not journalists in themselves but they're the input to journalism," while David Sjodin argues that some material, but not everything, shared by the Mountain News Net could be considered journalism. " I would have to say 20% of it is journalistic. Okay, the other 80% is just informative. In a timely fashion."

For Phil Lichtenberger, who operates the Scanner School in New Jersey, it is a matter of how far the content reaches:

> They are reporting what they hear, and it depends on, I think, how far they're willing to take it. If they're going to stay within their own private group, and they're going to talk amongst themselves, are they just buffs, or are they journalists? Right? I think, at some point you cross the line between a radio buff, scanner buff, scanner, listener, and somebody who acts and does something. There are Facebook groups out there that are public facing that will post what they hear over the scanner. I mean, that might be more of these citizen journalists than just a group of people who are in a chat room talking, because now you're putting it in a public domain.

Shane Anthony said Mountain News Net members are clearly citizen journalists because they share legitimate news.

> People in the monitoring enthusiast groups … they want information and they like gaining information. They like sharing information, so I think fundamentally … it makes them journalists, in my opinion. In general, I think I think anybody who acquires information, particularly in the field, disseminating and rebroadcasting it for the better gain and knowledge of the public, then I think that makes them journalists.

Acting in the Public Good

In Shane Anthony's view, the intention of the groups or individuals matters when it comes to determining whether they are journalists. He said the 2021 fires in Boulder County provided a prime example of public service.

> I personally have seen the benefit that scanner monitoring can bring to individuals in the public at large. And in large critical incidents where safety is at stake, things like the Boulder fires that we had here last Christmas, rapidly unfolding situations where public safety can really be compromised or threatened, scanner monitors actually they provide a very, very critical service to both public and the media.

Fellow scanner listener Eric Hurst, Public Information Officer for South Metro Fire Department, has a more nuanced view about whether Mountain News Net, which charges for its feed, is a public service.

> To a degree, yes, and to a degree, no. I think that public services, to some extent … are more freely available or widely available and that's a pretty niche thing that they're [Mountain News Net] doing. I think it's more of an enthusiast and news

> service. So, they're providing a service, especially to journalists and to assignment editors that are tasked-saturated … with stuff going on to bring something to their attention. But, in some cases I think people like News Net, like if you look at California Fire Scanner on Twitter, yeah that's absolutely a public service. When it's sent out in a way that is meant to provide information in the moment to people who need it, and they can, you know, [make] decisions about their safety, and should they evacuate, things like that.

Summary

This chapter outlined the results of an analysis of semi-structured interviews with members of the Mountain News Net and included contextualizing information from interviewees contacted as key informants. Three major categories emerged from the analysis; attractions (to scanner listening), unfolding stories (heard over the scanner), and gatekeeping methods used by scanner groups when sharing content.

Attractions to scanner listening include the excitement of hearing real events as they unfold, belonging to a group with similar interests, enhancing personal safety, using scanners as a news source, and holding public safety workers accountable by monitoring their radio transmissions. Examples of unfolding stories overheard by interviewees included the Aurora Colorado Theater shooting that claimed 12 lives, the Columbine shooting, tracking of tornadoes and snowstorms, a small-town rampage by a man tearing down buildings with a bulldozer, and a UFO sighting.

Finally, this chapter examined gatekeeping by the Mountain News Net, another scanner group called FlagScanner, and three Facebook scanner listening groups from

Bakersfield, California. The chapter examined what types of stories tend to be shared, mostly breaking news, and the kinds that don't get shared, such as suicides and stories that contain personal information about victims. Included was how Mountain News Net employed journalistic news values, such as relevance, when selecting what to share. Journalistic practices and values, such as verification, accuracy and credibility, were shown to play a role in gatekeeping by the Mountain News Net. A discussion of these findings is next, followed by the conclusions and suggestions for future research.

CHAPTER 6

DISCUSSION

It never gets old, because just when you think you can't hear something different, something happens. Whatever frequency you're on or whatever it is, I mean yeah, it's just crazy.

—Jenny Taylor

Mountain News Net's putting that out. And there's definitely a responsibility that if I'm putting that out there, I've got to make sure I got my crap together. I got to make sure that that information is accurate, that it's to the point, that it's timely. So yeah, absolutely there's a sense of responsibility to make sure you get it right.

—Bob Falcone

I've been involved with the dispatching process with Mountain News Net and they're very, they're very time driven. They like to get stuff out there, likety split. Sometimes it's disinformation if the origin, the point of origin, is disinformation. You know the original [report] can be that way, but … they don't substitute factuality for speed. They're very prompt at getting things out.

—Shane Anthony

This dissertation is essentially about storytellers, or perhaps more accurately, story-sharers. Twenty-six participants expressed in their own words why they listen to scanners, what motivates them to share content with others, and how they choose which content to share. In this chapter, the findings are synthesized as they relate to the research questions. I examine how the scanner listening culture is threatened by encryption, discuss the limitations of this study, and offer possibilities for future research.

This is an exploratory study involving a phenomenon that has been largely overlooked by scholars yet is well known by millions of hobbyists, public safety workers, and journalists worldwide. A goal of this research is to shed light on these pioneering citizen journalists who have shared information from police radios for nearly a century.

Citizen Journalism and Scanners

Looking at modern social media sites, it is easy to find news items of one sort or another. Twitter is widely known for disseminating news, yet it is often criticized for its outsized influence on the culture when it has relatively few users compared to other social sites (Chinni, 2022). Even so, the model appears to work, at least when it comes to attracting news consumers. A significant number of Americans get news from social media, even though the "news" they are reading may come from a friend, a little-known potentially unreliable source, or from who knows where. A similar argument could also be made about those who get their news from scanners, except the sources are real public safety workers on the job. It can be reasonably be argued that scanner listener-sharers have been doing a form of social media long before Twitter was just an idea in Jack

Dorsey's head. They socially share information about news incidents overheard as they occur.

Scanner listeners also seem to have the same problem that social media has– questionable credibility. The believability of news is a function of accuracy and the credibility of the source. This is true for all journalism. But instead of trusting the traditional institutions of journalism, today many people choose social media, at least in part because of a growing partisan divide and heightened criticism of legacy media. The evidence suggests that scanner listening has a credibility problem because it is largely misunderstood. Most users will tell you they know that initial scanner reports can be wrong, but they still provide useful information. We're talking about real-time information that is available well before anything is published by traditional media. As long as a listener is aware that it's just preliminary information, they have no problem monitoring scanner traffic. The truth is most breaking news, wherever it comes from, is preliminary to one degree or another. When major stories such as the Columbine shooting first broke, facts like the number of victims changed as the story unfolded. Those who are familiar with scanner listening argue that despite the limitations, it is often the only available source of information on local incidents, and that it provides a straightforward account of the facts without any kind of filter. For journalists, this information can be quite important, because it signals an event is happening, and that they should get busy confirming and finding additional information as quickly as possible.

Journalists suggest that everyone should be careful where they choose to get their news and should seek out a wide variety of sources. Legacy media brands are no longer the only reliable sources out there, but the process of finding credible, truthful information is much harder in the internet era (Hardalov et al., 2016). Citizen journalists, as seen during the Boston Marathon bombing in 2013, can help spread vital information or unknowingly spread disinformation. Boston is a particularly relevant story because it involved both scanner listeners and social media users who were sharing information gleaned from scanner apps.

The first part of RQ1 asks what role scanners played in the development of citizen journalism. The research participants represent both listeners, journalists and public safety providers. Almost unanimously, each participant agreed with the idea that scanner listeners who share what they hear are part of a pioneering group of citizen journalists who used electronic tools to share information well before the internet. As mentioned, Twitter co-founder Jack Dorsey said he came up with the idea for the micro-blogging service from his childhood experiences listening to railroad scanners. Mountain News Net and similar services were producing a Twitter-like feed in the 1990s on pagers, 15 years before Twitter was created.

Scanner listener and veteran Journalist Shane Anthony said there are clearly parallels between social media and scanner information sharing.

> News Net predates modern social media by a long shot, and it's structured a lot like social media. And I say it's a lot like a Twitter feed, and it's a lot like the

> things that happen on social media, … the relevance, the immediacy, the need to get it out quickly and to share with a mass audience … a lot of it was a predecessor and precursor to what we have now with social media.

There is another similarity between social media and scanner listening. Some say that social media is addictive and hard to walk away from because of the lure of what might be in the next post. Listening to a police scanner has that same effect, at least for some people. As listener Jenny Taylor declared: "It never gets old." Many scanner listeners carry their radios along everywhere, listening throughout the day and sometimes even in bed. Social media users are known to scroll for hours. All of this is about waiting for stories to unfold. The difference, I would suggest, is that scanner listeners are hearing real life unfold, while many social media sites create a manufactured world that is designed to provide you with a feed tailored tell a user what they want to hear (Cinelli et al., 2021).

Journalism and Scanner Citizen Journalists

It is unclear exactly when scanner listeners started sharing incident reports in an organized fashion through groups. But there is evidence to suggest it's been going on for decades if you consider reports shared in magazines or newspapers. Mountain News Net began sharing short bursts of content in the early 1990s. Members of this group were clearly influenced by the culture and practices of traditional journalism. One of the key reasons the group was created was to help journalists do a better, more accurate job of covering breaking news. Objectivity, at least when it comes to reporting the facts of a particular incident, is important to the Mountain News Net. Even so, group Founder Jim

Richardson considers the News Net to be supporters of the public safety community. Mountain News Net serves as an example of user-generated content creators who embrace many journalistic values, such as relevance, magnitude, surprise and timeliness.

Gatekeeping and the Mountain News Net

The constant stream of messages on a scanner feed is totally random, dependent on the events of the moment. Listening to a scanner is like putting a net in the water and waiting for a fish to find its way in. It is a waiting process, and many longtime listeners say they've become so used to listening that scanner traffic becomes ambient noise – until something interesting comes across that grabs their attention. This is a very inefficient way to seek information. In fact, it is not unlike the situation modern news consumers may find themselves in as they sort through vast amounts of information, trying to find credible, neutral sources of information. It's in there somewhere, buried like a needle in a haystack.

The value of groups like Mountain News Net is in the editing. News Net dispatchers sort through the reports, use their experience and sources to verify information as best they can, and essentially sort the wheat from the chaff. Traditional journalists may bristle at this next comment, but in many ways, the dispatchers in Mountain News Net essentially act as editors. Sometimes one dispatcher makes the decision, other times it is a collaborative process, and sometimes the buck stops, or the responsibility falls, with Jim Richardson, who might be considered the editor-in-chief. By no means is this group comparable to, say, *The New York Times*, but they provide a

demonstrably valuable service to their members and local news media throughout Colorado.

Former KMGH-TV Assignment Editor Wayne Harrison said Mountain News Net often filled the gaps in coverage for his station.

> What we used them for more was they shared scanner calls from outside the metro area and we didn't, we didn't listen to, like, Summit County, for example. They were very, very powerful in Summit County with their coverage, so we would hear things that we would never have known.

In my own years in Denver, Mountain News Net provided countless tips about stories we likely would have otherwise missed. They didn't provide the finished product, just the starting point for a story. This is still a very valuable service.

News Judgement and the Mountain News Net Feed

Interview data bore out my observations from years of monitoring the Mountain News Net feed that the group had a pretty good feel for the kinds of stories KCNC sought. On some basic level, News Net dispatchers had a sense of news judgement. Otherwise, the feed would have been full of random car accidents, assaults, traffic stops and all the other non-essential material, from the station's point of view. Instead, there was clearly discipline involved in the decision to send each particular story. Mountain News Net member Scott Cochran put it simply: "There definitely is news judgment involved. And there definitely is thought before anything is put out." This example of

editorial control within a feed of user-generated content was an early prompt to examine the Mountain News Net and scanner sharing.

Founder Jim Richardson acknowledged that, in the beginning, he prepared a basic set of written guidelines for what should be shared and what should be avoided. Of course, any such document could not cover every situation a dispatcher might run into. However, since many of the dispatchers had (and continue to have) public safety backgrounds, Richardson said they generally had the experience to know whether a post was newsworthy enough to share.

Deciding what *not* to send out can be more important than deciding what *should* be shared. The unintentional report of the name of a victim before next of kin are notified can cause great harm. Reporting suicides or the names of sexual assault victims can be critical mistakes. Based on the interview data, Mountain News Net Dispatchers understand these boundaries. One example of this involved a story discussed earlier: the escape of a martial arts expert from deputies in suburban Denver. News Net member David Sjodin shared a tip about the escape to a News Net dispatcher who made the editorial decision to leave out the part about the suspect's martial arts background. There was concern the information might reveal the suspect's identity, possibly prompting his friends to aid in the escape. CBS Radio journalist Lee Frank said it was clear Mountain News Net dispatchers felt their work carried important responsibilities. "I think that's an important point. The people who are putting out this information take it seriously."

Also a consideration, these are unpaid hobbyists not trained journalists; participation is a voluntary thing. Mountain News Net does not produce a professional-grade news product. Rather, the members produce the raw materials of news. Even so, this has utility for journalists. At a time when so much user-generated content is random pictures, political screeds, and clickbait Mountain News Net produces a product that is helpful to local news outlets at a time when they all the help they can get.

Deciding whether to trust a scanner sharing service involves multiple assessments as to accuracy, credibility, reliability, and responsibility. Demonstrably, Mountain News Net appears to many as trustworthy, but what about other sharing services? Based on this research, one rule of thumb would be to look at the experience level of the people who share the material. Organizations that have been around for a long time tend to earn a reputation in the community. Equally important, is the quality of the news feed itself. Does it prove itself to be consistently accurate? Does it deliver what the audience wants? Is it organized in an understandable way? Anyone deciding to engage with content shared over the scanner should understand that it requires some work to determine whether a particular source is trustworthy.

News Values

> "You know when it came to news, it was structure fires, sizable vegetation fires that that we're going to take a little while to get under control or that were threatening. Specialty calls, so hazardous materials, water rescue, airplane crashes, technical rescues. Then on the law enforcement side of things, you tend to see anything related to a pursuit, anything that was related to a shooting or

violent crime that had injuries. And then, occasionally, there would be severe weather reports too, so if there was a tornado warning, especially."

—Eric Hurst, 2022

There are certain topics and kinds of stories dispatchers look for when gatekeeping the Mountain News Net feed. Most of these could fall into the category of breaking news, which seem to include Harcup & O'Neill's (2001) news values of *relevance* and *magnitude*. *Bad News* would often be another, according to journalist Shane Anthony. "Definitely bad news. I mean, [unintelligible] the news that comes over the Mountain News Net is bad news for somebody, it'll have ruined somebody's day."

Two of Harcup & O'Neill's (2001) other news values tend to show up with some frequency in the Mountain News Net feed. Short-term *follow-ups* are common. As events unfold, Mountain News Net will frequently send out follow-up incident reports. *Surprise* is another key news value, as many News Net bring an element of surprise, such as a tornado sighting or a plane crash. Although not mentioned in the 12 news values from Harcup & O'Neill, *timeliness* is a commonly recognized news value (Galtung and Ruge, 1965), and it is essential in the work of Mountain News Net. Timeliness, getting the story first, is a point of pride for the News Net.

Journalistic Practices

Not only do news values play a noticeable role in the creation of content by Mountain News Net, but attention to basic journalistic practices is also clearly evident.

Some of the words that came up frequently in the interviews include truth, credibility, and accuracy. These are closely held foundational journalistic values that are clearly important to Mountain News Net members and dispatchers. Getting it right, accuracy and truth, are at the heart of journalistic practice, as noted in the Society of Professional Journalists' Code of Ethics (2014): "Seek Truth and Report It. Ethical journalism should be accurate and fair. Journalists should be honest and courageous in gathering, reporting and interpreting information."

Accuracy is one factor that builds credibility and the trust that news organizations need to hold an audience. Mountain News Net seeks credibility, and Founder Jim Richardson said that only happens by practicing what you preach.

> You want to be well thought of; you want to have the credibility. This sort-of street credibility. And we haven't really done a whole lot to build that, or to not build that, other than to just try to update, when necessary, be truthful and trustworthy, and only deliver what we know to be accurate ... reliable information.

When mistakes happen, Mountain News Net is generally quick to correct itself, a common practice in the news business. Corrections signal accountability and transparency to the audience. "To be accountable is to answer for one's behavior to someone outside the organization, for instance, citizens" (Karlsson et al., 2017). Mountain News Net has a built-in self-policing mechanism to help ensure accountability. Every News Net report carries the number of the dispatcher who wrote and sent the item,

much like a byline. Steve Davis said it is not a pleasant experience to see a correction on a report he had shared. “You look like an idiot,” he said.

Competition with Journalists

The Mountain News Net generally has a long, solid relationship with many news organizations in Colorado. A number of media companies pay to access the News Net feed. Founder Richardson said one of the goals of the group was to help the media do a better job.

> We do judge our service by how many hot stories we have that begin the [television] news. We routinely are in the three-to-five range of [incident reports] that had been sent during the day [that] lead the news. We start off with the first story. Then we have the second story. We have the third story. It absolutely worked. I think that was some of the initial reasoning to include the media is the fact that we were news junkies at heart, and we were also looking for better accuracy and better reporting on what was occurring.

The Mountain News Net and local media may be partners, but members like Bob Falcone take pride in being first with breaking news stories. “We always beat them [news media]. Typically, we know before they do because we're listening to it as it occurs. So, we always say 99% of the time we beat them to the punch.”

Scanner listeners have been tipsters for local media for decades. Participants said they do it to help the media, or to play a part in the newsgathering process. In my

experience, scanner listeners often wanted to come down to the TV station, curious about how we did things. They returned the favor by providing many useful tips.

Sharing from the Scanner and Serving the Public

From the outside looking in, scanner listening might bring to mind the classic geek who in high school carried around a calculator or slide rule. Others might think listeners are wannabe police officers or firefighters who need some excitement in their lives, so they listen to news on a scanner. Like many stereotypes, there may be a root of fact in those suppositions, but the data amplified by the interviews suggest that scanner listeners often work in public safety themselves, are concerned about their communities, and hope to make a difference. They also consider participation to be a hobby that is also fun, a chance to build friendships, and a way to find purpose.

Some police and fire agencies may not want scanner listeners sharing information for fear their reports may be inaccurate or a privacy concern. Or perhaps some agencies don't want the public to know what they are doing. Mountain News Net members argue that experienced listeners and dispatchers – some of whom have public safety backgrounds – serve the public by providing useful tips to the media that can be verified before use. That may seem far-fetched to some, since these are just random people who share what they hear over a police radio. But it is important to remember amateur radio operators are often called in to assist police and fire as they manage big events or provide communications during disaster situations (Nollet & Ohto, 2013). Hams are well known for public service work, but unlike scanner listeners, amateurs are licensed to receive and transmit using two-way radios. They also have to take tests to qualify for various tiers of

licenses. Even so, many of the same individuals who are hams, are also members of scanner groups like Mountain News Net. This, and the fact that many scanner listeners also have public safety backgrounds, suggests groups like the Mountain News Net may indeed understand what serving the public means.

A prime example of this, the participants describe, occurred during the Boulder fires on New Year's Day, 2022. Police and firefighters were overwhelmed by a massive blaze that threatened thousands of homes. Scanner listeners like Mike Rickert could hear officers calling out evacuations, and Mountain News Net members shared that with local media so they could confirm the information and report it. Those who record the scanner keep a permanent record of incidents that may prove useful in court, or in news coverage. When a gunman opened fire in a Planned Parenthood office in Colorado Springs, scanner listeners could hear police as they drove an armored vehicle inside the office in an attempt to end the situation (Turkewitz and Healy, 2015). Three people died in the 2015 incident. *The New York Times* used portions of a transcript of scanner traffic to help tell the story.

Future of Scanning

Almost every interviewee in this study expressed fear that the hobby they enjoy so much is in danger of disappearing as public safety agencies put walls around their transmissions using sophisticated encryption. This has been tried more than once, but scanner manufacturers have managed to find a way around the scrambling. Today's encryption appears to be much more sophisticated, and Jim Richardson said radio

manufacturers are making every effort to break these newer forms of encryption, but with little success:

> Usually, encryption is one step ahead of the ones trying to try and defeat it. And that's primarily because of the money involved in the encryption is a lot more substantial than the ones that are trying to defeat it. I know they're close. I mean, they're right on the doorstep. But just about when they get close to being able to release something, the manufacturers even either say it's illegal or they change their encryption keys and then make the scanner manufacturer have to start over again.

Lifelong scanner hobbyist and career journalist Shane Anthony said that listening to the scanner today is nothing like it was 20 years ago.

> There was a lot of information and now it's 180 degrees, where there's virtually no information now. I mean it's like … metro Denver is like a black hole for law enforcement information now. And the TV stations and the news organizations now rely almost 100 percent on social media posts from the enforcement agencies.

This was presented as an emotional issue for many people who listen to scanners, and it was known to inspire anger and suspicion in some. Richardson said bluntly that he wonders exactly what public safety agencies are hiding through encryption.

> Because of the things I'm seeing and hearing, I can sort of understand why they want to be behind an encrypted radio system because they're there is so much bad politics going on in these departments that I think they would rather hide

themselves from the public scrutiny of listening. You would think there would be more departments truthfully that were willing to say we're open, we're honest, our radio communications are in the clear.

During the Aurora, Colorado, theater shooting in 2012, Mountain News Net members revealed communication problems that forced police to load victims into their cruisers to get them to the hospital. As the Boston Marathon bombing proved in 2013, misguided sharing of scanner traffic can make a bad situation worse. That's why experts suggest that news media verify scanner reports before sharing them– but without a tip from a scanner listener, they may well miss the story. For those who want to hear something firsthand and understand the limitations of scanners, being a member of a group like Mountain News Net can be interesting and rewarding.

Encryption

"A lot of us are in agreement that it's a big government, information control, power grab."

—Shane Anthony, 2022

Listening to police radio, it seems, has a long history of being controversial. "Thrills offered by police calls," touted the Oct. 31, 1931, headline in the *Montgomery Advertiser* in Alabama. The article describes the real-life "tragedy and humor"(p. 19) to be found on the radio waves. But even in the early years of police radio, many agencies were opposed to listening by the public, which they argued also meant access by criminals. Police agencies were already talking about scrambler devices in 1931 because "organized criminals have established listening posts with shortwave radio sets and all

police radio information is immediately known to the lawbreaker" ("Police heads ponder secrecy advantage of radio 'scrambler'", 1931, para 2.). This argument is still used today by agencies that are increasingly implementing radio encryption.

Those early days set the tone for the rocky relationship between scanner listeners and law enforcement that exists to this day. More than 90 years ago *The Los Angeles Times* ("Public tunes in on crime wave", 1931) wrote of police complaints about listeners who showed up at crime scenes after hearing reports over a receiver tuned to law enforcement. A search of newspapers from the 1930s to today turns up a steady stream of complaints from police about listeners. There have been efforts to ban police receivers ("Let the cops have the air", 1931), complaints of criminals using receivers to evade police ("Police radio intrigues", 1933), and more recently a move to outlaw citizen monitoring of police radios listening to encrypted police radio traffic – effectively blocking listeners ("Doarnberger requests scrambles to foil police radio listeners", 1969). But a search will also turn up reports of police radio listeners reporting crimes and helping police ("Police radio listener acts as detective", 1954). Then there is the use of police radio reports in news stories such as the one using this headline: "Radio listeners hear thrilling police chase," (Associated Press,1953). Most of interviewees agree there are winners and losers with encryption. The winners, perhaps, are the agencies that can hide their traffic from criminals, and citizens. The losers are scanner listeners, journalists, and most important, the general public.

As the modern scanner radios emerged and rapidly entered the public consciousness in the 1970s, newspapers across the country wrote about the thrill of listening (Van Hook, 1981). But police grew increasingly concerned (Maxwell, 1976) and again urged regulation of the technology (Baker, 1976). The hobby caught on with some criminals, too, who used the devices to evade police ("Tennessee firefighter charged with theft", 2012). The development of scanners led to a strong backlash from law enforcement prompting, for example, the creation of a California law adding penalties for criminals who use scanners to evade capture ("Law targets scanners' use in crimes", 1991).

Encryption is a complicated issue at the center of a dispute that will not be easily resolved. What is clear is that encryption is spreading, cutting off access to public safety traffic for tens of thousands, if not millions of Americans. This is an issue that has been widely discussed publicly, but the academic research is somewhat sparse. According to Imel & Hart (2003) when it comes to public service communication, "encryption is a methodology that scrambles a voice or data message to protect its content from unauthorized use, or from those who would use it to the disadvantage of the agency or the public." Most encryption today is digital, that is, it converts analog voice transmissions into encrypted bits and bytes that prevent transmissions from being overheard by scanner listeners.

As many cities in the United States adopt encryption, we might be able to learn something from the experience in parts of Europe, including the United Kingdom,

Austria and Belgium, nations that have already switched to digital radio systems (Cheung &Wong, 2016). Using in-depth interviews, Cheung & Wong found that news routines were significantly affected by the inability to use scanners for news tips, causing "a decrease in the amount of non-routine news" and that "police and emergency services have assumed control of information flow, directing its quality speed and content" (p.1107). Essentially, the information about breaking news stories that once came from scanners was replaced by filtered information from police agencies. Journalists told the researchers that the news releases provided by police were often lacking the information journalists need to make judgements about whether to publish a story. Cutting off access to public safety communication undermines the ability of journalists who serve as watchdogs.

Another argument against encryption is that open channels increase the accountability of police and other public safety workers. Scanner listener Mike Rickert said he would rather hear information over the scanner than trust the official account released by police:

> I think it can add an element of accountability … Denver's been notorious for this over the last couple of years ... but there were numerous events when they were still unencrypted where they could be listened to where we, and I say we as the guys in the Mountain News Net, we know that's not what we heard. What they're reporting is not what we heard on the radio. And granted that sometimes early information coming out is not accurate, we all understand that. But there's a lot of

> times where we're all talking amongst ourselves back when these things would occur and say somebody's putting the full court spin on this one, because that's not what happened. You know we all listened to that audio live as it was happening and that's not how Denver's giving it in their press conference or they're giving nothing at all at their press conferences.

Denver area Freelance Journalist Shane Anthony agrees with Rickert, saying he believes encryption amounts to withholding information from the public:

> First of all, as taxpayers… we're the owners, the proprietors of these airwaves and we're not privy to what happens on them… so that's one beef I have right there. You know [the] other one is that… the information… is [now] being handed out, spoon fed with an eyedropper at times, and I think it really affects the ability to keep the community as safe as the media was able to keep the community ten or 15 years ago. I think it really compromises everybody.

Encryption could effectively block activists like Shakima Thomas from being able to find out firsthand what is going on in her neighborhood. The concern for activists brings to mind the 1960s when members of the Black Panthers famously used scanners to listen for incidents of police brutality (Brown, 2018).

Despite the arguments against it, encryption is spreading quickly in the United States. According to the Reporters Committee for Freedom of the Press (Fidler, 2021), California now requires either total or partial encryption of police radios. Cities in

Illinois, Virginia, Minnesota, North Dakota, and many other states have blocked scanner listening through encryption. In a twist against that trend, Colorado passed a law that requires police departments to provide access to encrypted channels to the media. Even so, the Colorado Freedom of Information Coalition (Roberts, 2022) reported that no action had been taken to grant this access by the cities of Denver a full year after the law was passed. In addition, James Richardson said the law has built-in loopholes.

> They wrote the law in such a way that it made it absolutely impossible for the media to really work with Denver. So, because of the amount of liability insurance, for example, that Denver was requiring, all of the news directors said this is asinine. There's no way we're going to do this. And so, it was one of these things where they made a law and they tried to, but they didn't make it media friendly. They didn't make it monitoring friendly at all.

As of this writing, Chicago is in the process of encrypting its police radios (Flores, 2022) and the city of New York is considering encryption, arguing that such a move protects criminal investigations (Maisel, 2022). For years, police agencies have complained about the use of scanners by criminals. In Boulder, Colorado, Deputy Police Chief Steve Redfearn, who was a scanner enthusiast in his teens, now favors encryption, saying scanners are a tool too often used by criminals. Police in Louisville, Kentucky, have encrypted transmissions but release them to an app called Broadcastify with a 15-minute delay (Bautista, 2022). Assistant Police Chief Paul Humphrey told WLKY the move would allow police to secure a crime scene before the location is released to the

public. In suburban Denver, South Metro Fire made a different choice and remains unencrypted. Eric Hurst, Public Information Officer, said transparency sends the right message to voters. “The day is going to come when we’re going to have to ask the taxpayers for more money. And rather than trying to tell them in that voting cycle why we matter, we want to show people why we matter every day.” South Metro augments its decision to keep its radios unencrypted by also livestreaming some of its communications.

First Amendment Concerns

In the United States the airwaves belong to the public (Hundt, 1995). Supporters of encryption say a block prevents criminals from compromising investigations and possibly creating a chilling effect in which officers would be reluctant to speak freely over encrypted channels for fear of eavesdropping. Mountain News Net member Curt Mann, however, says that is the heart of his argument *against* encryption.

> Some things definitely need to be encrypted, but the day-to-day ordinary operations need to be in the clear. I’ve also made the point that monitoring is the only practical way for the ordinary citizen to know how well government is doing. You can't go down to City Hall once a week and look at the records, nobody does that, so this is the only practical way to monitor what they're doing.

Opponents argue that open access to public safety radios holds law enforcement officers accountable, adds transparency and is an essential tool for journalists. This First Amendment battle weighs the right to listen to taxpayer-funded communications against

public safety concerns. There are clearly strong arguments on both sides. The hope stated among scanner buffs was that some kind of compromise might be reached.

Shane Anthony said he worked a short-term stint on the assignment desk of a Denver TV station recently and was shocked at how little he could hear on the scanner. He said local media are now almost completely reliant on information released by police and fire agencies over Twitter.

> Now they've got the media in this town trained, they're like spoon-fed chimps. … It's almost ridiculous. I mean, there's no news unless it's spoon-fed via Twitter, social media. And a lot of those posts are outdated, not updated, they don't happen at all, or they're inaccurate.

Anthony and other participants argue that public safety agencies simply have too much control to keep information out of the hands of the media and the public. News organizations across the country have spoken out against encryption. *The Los Angeles Times* Editorial Board (2022) wrote that encryption would send the wrong message at a time when trust between law enforcement and the public is waning. The board said, "reporters rely on" (para. 6) police radio transmissions to cover the news and suggests that law enforcement may well have "troubling reasons" (para. 13) for wanting to hide transmissions from the public.

The Times Editorial Board urged a possible compromise in which communications involving legally private information would be shielded, leaving the

bulk of police radio communications unencrypted. Mountain News Net's Jim Richardson favored this approach. "What are these public safety agencies hiding behind with all the digital encryption?" he asked. "Is that transparency to their community members to be hiding behind it?" Richardson said some channels should remain encrypted to protect sensitive investigations or private information, but most should be available to the public.

There are other arguments in favor of encryption. Vargas et al. (2019) concluded that scanner listening places citizens in danger through what they call digital vulnerability. The researchers say unencrypted police channels often reveal private information, such names and addresses. Even more disturbing, they wrote, is that African American and Latino communities face "far more digital vulnerability than White communities" (p. 72). Conversely, Vance (2002) makes the case that police in one city should place a streaming feed of the primary police channel on a website, open to all citizens. In this way, scanner feeds would serve as an expansion of community policing. For many, equity is clearly at the heart of the question over encryption. Without encryption, some argue, transparency is ensured, and information is available to all. Yet encryption proponents insist it is just as important to protect those who might be hurt by public scanner feeds.

Steve Redfearn has been on both sides of the argument over encryption. As a teenager he was a hard-core scanner fan who began a career in law enforcement as a dispatcher. As the years passed and he moved up in the ranks, his view of encryption changed. Today, as Assistant Police Chief of Boulder, Colorado, he supports encryption.

He said the problem isn't scanner listeners, it's lawbreakers. "I've had many instances where the criminals use a scanner. When you think about it, if they're a smart criminal."

A noteworthy footnote in the battle over encryption is that, ironically, law enforcement has repeatedly attempted to outlaw encryption on cellphones in the United States, yet many agencies use it on their own radios (see: Etzioni, 2015). The ability to listen to scanners has already been taken away in many communities and barring a new law or court ruling restricting encryption, it is quite possible the listening hobby will die, and journalists will lose a major source of information.

It is also quite possible that a hobbyist or scanner company may have already developed a workaround for scanner encryption. And other listeners said they still find ways to track down information even from a public safety agency using encryption. "I have my ways, man," said News Net Member Scott Cochran, "I know enough people who are non-law enforcement but can give me the details. That's why I like blowing people away with the info. They're like, how did you know that?" Scanner listeners have demonstrated their resourcefulness over many decades. They suggest they are depending on that resourcefulness now to keep their hobby alive.

Limitations of Study

As with all academic studies, this one has limitations. This is an exploratory study intended to provide a detailed and deep inside look into a topic largely untouched by researchers. The interviewees were purposefully chosen as knowledgeable participants with a varied range of experience related to scanners. While most of the participants are

Mountain News Net members, otherskey informants were added, including journalists and scanner listeners from other areas, to add important details and context on certain issues and to support validity.

Interviewee's memory could be a limiting factor, but the results appear trustworthily representative of the range of experiences and perspectives of scanner listeners. Therefore, while broadly explanatory, they are not generalizable. The findings were considered saturated when no significantly new experiences or perspectives arose. The bulk of the data were gathered during 2022 and 2023. The sample included individuals with extensive experience with scanner listening, in some cases multiple decades of listening. My personal experience with scanners brings both benefits and risks. Inside knowledge as a journalist and scanner listener proved useful when selecting participants, and generally understanding the complex technical nature of scanner listening and its relationship to journalism. Conversely, there is always the risk of introducing bias or steering the interview subjects toward a certain conclusion. I made every effort to conduct this research in a reflexive manner, taking time to review each interview, and to frequently consult the literature. The interview guide evolved in an iterative fashion with added or slightly altered questions as information emerged during the first few interviews. The data was thoughtfully and carefully coded in a line-by-line fashion through repeated rounds until three broad categories emerged.

The interviews may have been impacted by the use of Zoom and Skype, which can limit the ability to perceive certain body language and other contextual signals that may be detectable in an in-person interview.

Inclusion Considerations

From the inception of wireless transmission, the radio hobby has been primarily male-dominated, and remains so today (Haring, 2007; Squier, 2003). This can be deduced by considering the current dominance of men in highly technical electronic fields. According to the *Harvard Business Review*, "Engineering is the most male-dominated field in STEM," (Silbey, 2016, para.1). There are potentially undesirable consequences to this, as evidenced in the special codes ham operators use over the air when referring to women. Amateur radio has its own lingo. When a ham operator dies, they become a "silent key," a nod to the days when the hobby mostly focused on Morse code. Some of the lingo could be interpreted as sexist or offensive. Amateurs routinely describe unmarried women as young ladies (YLs), while married women are referred to as "ex-young ladies" (XYLs). Ham operators refer to each other as "OM," or "old man." According to Haring, while the ham radio community "spoke of themselves as democratic, and open to all who made the effort," the truth is that by mid-century they were a "remarkably homogeneous" group (p. xii). According to the American Radio Relay League, in the early-2000s, just 15 percent of amateur radio hobbyists were women (Harker, 2005). This is not to say the entire population of amateur radio operators should be judged as sexist or racist, but the lingo and largely male makeup of the group does raise concern from scholars such as Haring and others.

McIntosh & Morse (2015) suggest that since semi-structured interview samples are generally purposive, participants are chosen for their "particular experiences perspectives and expertise" (p. 8) and should not be designed to constitute a snapshot of

the demographics of the entire population. I have not been able to locate any reliable statistics on the demographics of scanner listeners, but in my own experience, and judging by the membership of the Mountain News Net and the content on RadioReference.com, it seems quite likely this hobby is also male dominated. Even so, there are still a significant number of women and some people of color in the hobby. I have made every effort to recognize and include members of these subgroups, actively seeking out and interviews with women and people of color for qualitative interviews not to create a demographic snapshot, but to create a sample that will provide rich data from a variety of perspectives. I interviewed four women, one Korean, and one African American individual, in a sample of 26 people.

Further research paths

Much room is available on this topic for future research. One of the most significant topics to examine is the impact of encryption on the accountability of law enforcement and the gathering of news. Serious questions about encryption have been raised in this study, including the motivation behind encryption and conversely, whether officers are safer and fewer cases are compromised because of encryption. A small body of research exists into the First Amendment issues surrounding the blocking of publicly financed communications, but considering the impact of encryption, there is room for much more work.

From the standpoint of user-generated content, a researcher might conduct a content analysis on the feed from a group such as the Mountain News Net to examine the accuracy of their news feeds. A study focused specifically on journalists and their use of

scanners and scanner tips might reveal useful information as to how scanner content is used by traditional media.

Scanner groups, including incident notification services similar to Mountain News Net, could be explored further by examining multiple groups in various locations. App-based notification services like Citizen.com and Pulse Point could provide rich data for a study. The increasing use of livestreaming by citizen journalists who track down news events using scanners is also a fascinating topic for exploration.

A larger study of several scanner listeners across the country, possibly using a survey instrument, might reveal some common traits and practices of those who listen to scanners. Exploring the apparent lack of gender diversity in the scanning hobby may provide hints as to how to engage women in scanner listening. Since so little academic research exists on the topic of police scanner listeners, there are many opportunities available.

Conclusion

In all likelihood most Americans have a vague notion of what a police scanner is, but few realize the size and scope of the community of radio listeners. Millions of people listen to public safety transmissions worldwide, and some are members of groups that share content overheard on the scanner. As an example, Colorado's Mountain News Net has about 500 members, including news media, that subscribe to the Twitter-style feed created by the News Net. For more than 30 years, a select group of dispatchers have acted as gatekeepers for the feed, generally using the fundamental practices of journalism to determine what goes out, and what does not. Though not identical to a traditional news

feed, Mountain News Net relies on several journalistic-like traits and news values in selecting what to share, including timeliness, relevance, magnitude and surprise. Credibility and accuracy are highly valued by these dispatchers.

At a time of great change in journalism as business models collapse, the availability of user-generated content holds promise as a way to provide coverage of events that might otherwise be missed. The information shared by scanner listeners is a valuable form of user-created content that frequently provides journalists with tips on potential news stories, but the future of scanner listening is at risk. Public safety agencies around the world are increasingly adopting sophisticated forms of encryption that prevent signals from being received using existing scanner technology. Scanner radios are a valuable tool for journalists seeking news and also support a community of well over a million listeners in the United States alone. Open, transparent communications help ensure the accountability of public safety workers who are employed by taxpayers, although there is concern that public safety radio transmissions may disproportionately impact the privacy rights of minority groups. Perhaps the answer is a compromise solution in which some channels would be encrypted to protect sensitive investigations or personal information, while most channels remain open to public reception. In the meantime, the number of agencies using encryption continues to rise, and the scanning hobby is in serious peril.

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APPENDIX A

IRB APPROVAL 7/23/2021

EXEMPTION GRANTED

Leslie Thornton
CRONKITE: Journalism and Mass Communication, Walter Cronkite School of
602/496-8799
Leslie-Jean.Thornton@asu.edu

Dear Leslie Thornton:

On 7/23/2021 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Scanning for News: Mountain News Net, Citizen Journalism and Pre-Internet User Generated Content
Investigator:	Leslie Thornton
IRB ID:	STUDY00014180
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• Email Recruitment - Rackham, Category: Recruitment Materials; • Rackham-Protocol-14-07-2021, Category: IRB Protocol; • Short Consent Form - Rackham - 21-07-2021.pdf, Category: Consent Form; • Supporting Documents 23-07-2021.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 7/23/2021.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

If any changes are made to the study, the IRB must be notified at research.integrity@asu.edu to determine if additional reviews/approvals are required.

APPENDIX B

PARTICIPANT CONSENT LETTER

Scanning For News

I am a graduate student under the direction of Associate Professor Leslie Jean Thornton in the Walter Cronkite School of Journalism and Mass Communication at Arizona State University in Phoenix, Arizona. I am conducting a research study to examine the use of scanner radios and the sharing of information obtained from scanner radios.

I am inviting your participation, which will typically involve an interview lasting from 45 minutes to two hours that may be used in my Ph.D. dissertation, and possibly for publication. In certain cases, you may be asked to take part in a follow-up interview, lasting 30 minutes to one hour. You have the right not to answer any question, and to stop participation at any time. If you believe you may have given an incorrect statement to Brian Rackham, you will be able to provide him with an amended statement.

Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. You must be 18 or older to participate in this study.

Your unique knowledge about scanner listening and information sharing is important to journalism research. This topic has not been widely researched, so this study will provide an opportunity to share your experiences to increase society's understanding of mass communication and journalism. There are no foreseeable risks or discomforts to your participation. There is no cost to participate in this study, nor will you be paid for your participation.

This study will focus on scanner listeners who participated in groups where reports of incidents were shared via pager or other methods. This is a virtually unexplored area of mass communication research and as such it is important for authenticity and validation that the real names of participants or identifying information be used in some cases. As such, you hereby grant permission for the use of your name in the research process and in the research findings.

I would like to video record this interview over Zoom, Skype or, if necessary, record audio only over the telephone. Recordings will be retained for an indefinite period. Once the interview is completed, all or portions of it may be edited and transcribed. The interview will not be recorded without your permission. Please let me know if you do not want the interview to be recorded; you also can change your mind after the interview starts, just let me know,

If you have any questions concerning the research study, please contact me, Brian Rackham, at brackham@asu.edu or the Principal Investigator, Dr. Leslie-Jean Thornton at leslie-jean.thornton@asu.edu. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788. Please let me know if you wish to be part of the study

By signing below, you are agreeing to be part of the study.

Name:

Signature (Required): Date:

APPENDIX C

INTERVIEW GUIDE – SCANNER LISTENERS

SEMI-STRUCTURED NTEVIEW GUIDE – SCANNER LISTENERS

Introduction:

These questions are for a research study involving scanner listeners. You do not have to participate and may end the interview at any time. May I record this interview so that I may have an accurate record of our conversation?

The recorder is on.

1-Introductory information:

Basic information: Name, your general industry or profession (non-specific: iwriter, taxi driver, etc), preferred gender pronoun, city where you reside.

2-Next, I'd like to focus on you…

Why do you listen to scanners?

What is your experience with using scanners, and particularly with using them to share information?

Follow-up prompts, as needed:

3-Sharing, audiences

When you're sending (or forwarding) information you heard on a scanner to be dispatched on Mountain News Net or elsewhere, do you have particular audiences in mind? Do you think that influences what you report, or how? If you can, tell me about a time that illustrates that…

4-Sharing experiences

I'm interested in hearing about times you shared information with journalists. What do you think about in terms of what should or should not be shared? Tell me about a time that was particularly rewarding… A time particularly challenging…

5-Scanner groups

Next, I'd like to focus on your work as part of a group…

How did you come to be a member of [group], and when was that? *(Some of this may have already been answered above.)*

How would you describe [the group] and the work it does? Do you feel this group is part of a larger network? Please tell me more about that…

6-Gatekeeping

When your group shares reports from the scanner, are there any guidelines or rules about what should be shared?

Follow-up prompts, as needed:

8-News sources

Tell me about characteristics or practices that are similar for other groups that you consider part of your information network. Any specific kinds of content would you expect, or not expect for example. Please give me an example or two…

7-Scanner news vs. journalism

I'd like to hear about whether you feel there are similarities and differences between what scanner groups do and what journalists do and give as many examples as you can.

8-Public Good

Would you or would you not consider the sharing of information by your group to be something that is good for the public at large, or a public service?

9- Spread of Encryptopns

Since the emergence of encryption, how would you compare listening to the scanner today versus, say, 10-15 years ago?

10-Opinion on inclusion.

What are your thoughts on the encryption of public service radio channels?

*(*At this point, if I realize I need to revisit one of the previous questions, I will, by asking the interviewee to either elaborate or clarify.*)*

11-Anything Else

Please tell me if there is anything more you feel I should know or consider about scanners and journalists, or about your experience using scanners.

Thank you so much for your time; I really appreciate it. May I get back to you if I have any questions as I go over this? Again, thank you. Follow-up interviews may be needed if additional information emerges during the interview process.

APPENDIX D

INTERVIEW GUIDE - JOURNALISTS

SEMI-STRUCTURED INTERVIEW GUIDE – JOURNALISTS

Introduction:

These questions are for a research study involving scanner listeners. You do not have to participate and may end the interview at any time. May I record this interview so that I may have an accurate record of our conversation?

The recorder is on.

1-Please provide Basic information:

Name, , preferred gender pronoun, city where you reside, etc.

2-Tell me about your journalism career

What do you do?

How long?

Why be a journalist?

3-Scannes

What is your experience with using scanners, and particularly with using them to share information?

Follow-up prompts, as needed:

4-Did you work with the Mountain News Net? I

A) If "yes:"

When you're sending (or forwarding) information you heard on a scanner to be dispatched on Mountain News Net or elsewhere, do you have particular audiences in mind? Do you think that influences what you report, or how? If you can, tell me about a time that illustrates that…

B) If "no"

How would you compare the information disseminated from scanner listeners to the tips journalists might share on, say, twitter? Similarities and differences. (skip following questions specific to Mountain News Net)

5-Working with Scanner listeners

I'm interested in hearing about times scanner listeners shared information with you or your newsroom. What kinds of things did you typically share? How useful were these tips. Tell me about a time that was particularly useful… A time particularly challenging…

How did you come to work with scanner listeners?

6-Relationship with Mountain News Net

How would you describe Mountain News Net and the work it does? Did you work with any other scanner groups? Have you ever used tips or contents from a scanner listener or scanner group?

7- Scanner group content vs. journalism

I'd like to hear about whether you feel there are similarities and differences between what scanner groups do and what journalists do .Please talk to me about that and give as many examples as you can.

8- Public Good

Would you consider the work Mountain News Net and similar groups do to be in the public interest? Would you, or would you not say they are serving the public?

9-Encryption prevalence

Since the emergence of encryption, how would you compare listening to the scanner today versus, say, 10-15 years ago?

10-Encryption Opinion

What are your thoughts on the encryption of public service radio channels?

(At this point, if I realize I need to revisit one of the previous questions, I will, by asking the interviewee to either elaborate or clarify.)

11-Anything Else?

Please tell me if there is anything more you feel I should know or consider about scanners and journalists, or about your experience using scanners.

Thank you so much for your time; I really appreciate it. May I get back to you if I have any questions as I go over this? Again, thank you.

Thank you so much for your time; I really appreciate it. May I get back to you if I have any questions as I go over this? Again, thank you. Follow-up interviews may be needed if additional information emerges during the interview process.

APPENDIX E

INTERVIEWEE BIOGRAPHIES

PAST AND PRESENT MOUNTAIN NEWS NET MEMBERS

Anthony, Shane-Zoom Interview, 7/1/2022

Shane Anthony has worked for 35 years covering news in Denver. He has worked as an assignment editor and photojournalist for local Denver television news stations and is currently self-employed. Shane was a long-time member of Mountain News Net and is currently "taking a break" from the organization but remains a strong supporter.

Blackburn, Bruce – Zoom Interview, 5/18/2022.

Bruce is a longtime member of the Mountain News Net who has worked as a dispatcher for the group. He lives near Grand Junction, Colorado covering Colorado's Western Slope.

Cochran, Scott – Zoom Interview, 5/20/2022.

Scott Cochran is a longtime scanner listener and member of the Mountain News Net since the early 1990s. He lives in Denver, where he works for a local school district. He is also an amateur radio operator.

Davis, Steven – Zoom Interview, 5/13/2022

Steve Davis is a longtime scanner listener and member of the Mountain News Net. He is currently Police Chief of Mountain View, Colorado. He has had a long career in public service including work as a dispatcher. In the 1990s he contributed video and pictures of breaking news events to local television stations in the Denver area.

Falcone, Robert – Zoom Interview, 5/19/2022.

Bob Falcone is a longtime member of the Mountain News Net who retired eight years ago after 38 years as a firefighter and arson investigator. He is currently a News Net dispatcher in Colorado Springs. He writes a hiking column for the *Colorado Springs Independent.*

Hanna, David – Zoom Interview, 5/20/2022.

Dave Hanna describes himself as an "old-timer" who said he has been listening to scanners "all my life." He is a longtime member of the Mountain News Net and a dispatcher for the group. Hanna said the information sent out by Mountain News Net is more accurate and timelier than the news media.

Hurst, Eric – Zoom Interview, 7/26/2022.

Eric Hurst is Public Information Officer for South Metro Fire Department in suburban Denver. He was a longtime member of the Mountain News Net but quit when he became a PIO because of what he considers a conflict of interest since it is his job to prepare news releases for South Metro. Hurst has been listening to scanners since he was a child, when his father bought him a Mountain News Net pager.

Kimball, Lloyd, C. – Zoom Interview, 7/18/2022.

LC Kimball currently works for FEMA in the Northwest Region. His father was a volunteer firefighter so listening to scanners was his hobby from a young age. Kimball later became a firefighter and held other public safety jobs including dispatch work. He

joined Mountain News Net in the early 1990s and served as a Mountain News Net dispatcher in Pitkin County, west of Denver.

Mann, Curt – Zoom Interview, 8/5/2022.

Curt Mann operates a company called Denver Radio, that sells scanners. As an experienced rtechnician who can program sophisticated scanning radios for hobbyists, and he said he's helped hundreds of listeners over the years. Mann also worked as a fire dispatcher for 32 years and is a longtime Mountain News Net member.

Richardson, James – Zoom Interviews, 5/17/2022 & 2/2/2023.

Jim Richardson is the founder of Mountain News Net and has been listening to scanners since he was a teenager. He recently retired after a career as a paramedic and other related public service jobs, but still works as a consultant. Richardson currently runs Mountain News Net remotely from his home on an Island off the Washington state coast.

Rickert, Michael – Zoom Interview, 7/12/2022.

Mike Rickert first became interested in scanners in the late 1980s when he used one as a tool to check for interference when installing cable TV. He calls the Mountain News Net "an aggregator of information," that helps him stay aware of what is happening around him. Rickert is a Mountain News Net member who also livestreams aviation frequencies in the Denver area to a scanner app called Superfeed.

Sjodin, David—Zoom Interview, 7/28/2022.

Dave Sjodin has lived in Denver all of his life, and currently works in computer repair. He is a longtime member of Mountain News Net who has been listening to scanners for 40 years. Sjodin says he listening to scanners is useful so he can keep up with events in his neighborhood that go unreported in the local news. He is a longtime Mountain News Net member.

Triska, David—Zoom Interview, 7/29/2022.

Dave Triska makes his living driving a grocery store truck, and lives in Denver. He entered the scanning hobby as a teenager, first listening to shortwave radio then several years later, police and fire channels. Triska is a long-time Mountain News Net member He said scanners are particularly useful helping him avoid road closures and traffic accidents while driving his work truck.

Redfearn, Steve—Zoom Interview, 7/11/2022.

Steve Redfearn is someone I have known since he as a teenager, who used to come to the television station where I worked see our scanners. Today, he is Assistant Police Chief of Boulder. He is also known for his work as an officer on the scene of the 2012 mass shooting at a movie theater in Aurora, Colorado. Growing up, he frequently listened to scanners. Today though, as a law enforcement officer, he feels public safety channels should be encrypted to keep criminals from listening in on police activity.

JOURNALISTS OR FORMER JOURNALISTS WHO WORKED WITH OR USED CONTENT FROM MOUNTAIN NEWS NET

Frank, Lee—Zoom Interview 7/14/2022

Lee Frank is a freelance radio reporter who also works for The CBS Radio Network. He began listening to scanners as a hobby in the 1980s, but says he now only listens when on the job. He was a longtime member of Mountain News Net, which proved to be quite helpful when he covered the Aurora theater shooting in 2012 for CBS.

Harrison, Wayne—Zoom Interview 8/5/2022

Wayne Harrison is a retired assignment editor and digital director for KMGH-TV in Denver. He spent many years working with the Mountain News Net and is himself a scanner listener. He also created the website Pinecam, which provides a live camera shot of the rural area west of Denver, and later morphed into a local community site with participants sharing information from the police scanner. Today, Harrison lives in Costa Rica.

Hoffacker, Doug—Skype Interview 5/12/2022

Doug Hoffacker is a retired television assignment editor for KUSA and later KCNC-TV in Denver. He spent most of his career listening to scanners on the job and worked with Mountain News Net most of that time. Hoffacker said the News Net tips helped him determine whether a story was newsworthy enough to deploy scarce reporting resources for coverage.

Wyatt, Dionne-Mindy—Zoom Interview 8/7/2022

Mindy Dionne-Wyatt worked with Mountain News Net tips when she was an assignment editor at KDVR and later KCNC-TV in Denver. She said at first, she was intimidated by the bank of scanners she was expected to monitor on the job, but was able to learn how to listen effectively. Today she works for a gas distribution company as a social media manager.

OTHER KEY INFORMANTS

Black, Chad—Zoom Interview 6/30/2022

Chad Black is a freelance video journalist who founded and continues to operate a website called FlagScanner, which shares reports gleaned from listening to scanners. The site began as a simple repeater of a live scanner feed but evolved into a news-sharing site with a team of volunteer "reporters" who share what they hear over police and fire channels. FlagScanner is a for-profit business, selling ads and "premium" memberships to users.

Carrey, Jim—Skype Audio Interview – 4/9/2016

Jimmy Carrey is a retired firefighter and longtime member of the Gong Club in New Jersey, an organization that provides support and canteen services to firefighters working large -scale incidents. The group has a long history of sharing information about major fires, public safety incidents and news about firefighters. At first the information

was spread through phone trees, then over two-way radio. Mountain News Net Founder Jim Richardson says the Gong Club helped inspire him to create the News Net.

Elliot-Smith, Micayla—Zoom Interview 8/10/2022

Micayla Elliot-Smith is former TV producer and scanner listener in Bakersfield, California. She quit working in news to join the family business. Elliot-Smith participates in three Facebook scanner-groups centered on Bakersfield and Kern County. She said she listens to scanners to keep safe, and also said she believes scanner reports can be more accurate than those of news organizations.

Lichtenberger, Phillip—Zoom Interview 9/6/2022

Phil Lichtenberger runs a unique business in New Jersey called the Scanner School. As a long time-scanner hobbyist, he teaches others to set up their scanners and how to operate them. He is also a longtime listener.

Spellman, Connie—Skype Audio Interview 4/9/2016

Connie Spellman is manager of the Gong Club in New Jersey, which as mentioned above, provides canteen services for area fire departments. Her interview provides context about the history of scanner listening and sharing.

Taylor, Jenny—Zoom Interview 9/21/2022

Jenny Taylor is an IT professional in rural mid-Ohio. Her brother introduced her to the scanning hobby when they were children. Her interview provides perspective about the scanning hobby both as a woman, and a resident of rural America.

Thomas, Skakima—Zoom Interview 9/23/2022

Shakima Thomas lives in New Jersey, where she is a social worker and self-described activist. She lives in the inner city, and said she listens to scanners to help keep her family safe. She adds a unique perspective to this research as a key informant.

Zorn, David—Zoom Interview 7/15/2022

David Zorn is a radio reporter for KAFF Radio in Flagstaff, AZ. He has listened to scanners for many years but is a vocal opponent of Chad Black's FlagScanner website. Zorn said he is worried that the site sends out too many uncorroborated reports. At one point Zorn said he had hoped to work with Black, but the two could not agree on editorial standards.