Crowdsourcing Crime: Can Social Media Help Stop Crime?

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On July 23, 2018, a man was found dead in a tent in Collier County, Florida. The man, camping at the Big Cypress National Preserve, carried no identification or cell phone, but did have over \$3,000 in cash and high-end camping gear. The man appeared to be in his late 30s to early 50s, with greying hair, a long beard, and perfect teeth. An autopsy revealed that the dead man weighed only 83 pounds, emaciated from some unknown cause; the death did not appear suspicious. His fingerprints, run through criminal databases and federal databases, yielded no matches (Culliton, 2019). Local and regional missing people bulletins were no match, either (Collier County Sheriff's Office, 2019).

Faced with an unknown decedent, the Collier County Sheriff's Office set out to identify the man by circulating the information known about him. Almost immediately, people in the Eastern seaboard hiking community reached out to identify the man as "Denim" or "Mostly Harmless." Numerous people reported meeting the man on the Appalachian Trail and other major Eastern trails in 2017 and 2018. He had been photographed several times by other hikers and by hostel owners when he stopped for a real bed for the night, but his true name evaded everyone; hikers almost always go by a trail name, and when he had checked into lodgings, the name given, Ben Bilemy, turned out to be an alias (Collier County Sheriff's Office, 2019).

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In the effort to find him, the CCSO has used traditional media reporting, Facebook posts, and a new podcast called "Sworn Statement." The case has also been entered on NAMus.gov, the National Missing and Unidentified Person System website, a type of clearinghouse of missing people maintained by the Department of Justice, and DoeNetwork.org, a similar privately run website. Additionally, the case has generated numerous threads on websites for people looking to help solve a mystery, like Reddit and Websleuths. To date, no one knows who Mostly Harmless is, but his story has captivated thousands of people who have dedicated countless hours combing through the clues available to the public. Internet strangers have tracked down camping gear brands from photos to see if anyone filled out a warranty card on the item; compared him to various missing men from the Lake George, NY area, where Mostly Harmless allegedly told some people he was from; and tried to discern why he was so emaciated at his time of death, and if that was either the cause of death or a side effect from a terminal illness, which would explain why he might be "on the run," among other mysteries, all in an effort to figure out who this man was and why he was found the way he was on that rainy summer day. This case has resonated amongst hiking enthusiasts and trail angels (those who help hikers with food, water, supplies, and lodging), as well as people interested in using the Internet to solve unsolved mysteries and crimes (the so-called websleuths). It also poses an apt question: Can strangers on the Internet crowdsource to solve a crime? What would motivate a complete stranger to become involved in this type of work in the first place? And what type of contributions--to which systems--do websleuths see themselves making?

Development of Online Crime Solving Communities

The use of the Internet in solving crime means looking at two main applications of social media¹. One is the use of social media by police in investigations, and the other is the use of social media by interested parties external to the police--often called "websleuths." These groups use the social media platforms in different, but complementary, ways, and with different motivations.

How Police Use Social Media to Solve Crime

In the investigation of crime, police may seek information from a number of sources.

Traditionally, police appeal for help from the public through the media. While there is sometimes an adversarial relationship between the media and the police, there is a long history of a positive partnership, particularly when it comes to solving crime. Such partnerships have ranged from general appeals written up in newspaper articles to radio bulletins to the extraordinarily successful documentary-style network television programs featuring real-life unsolved crimes, like "Unsolved Mysteries," and "America's Most Wanted." All of these media partnerships resulted in one thing: police are able to get a message out to the public about a crime they are actively trying to solve, to seek help in the case. The public is urged to contact the police to provide any information to help solve the crime.

In these times, police departments have embraced modern technology as outreach. Many departments are active on social media, and some even use social

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¹ I am using the term "social media" to encompass all networked peer-to-peer discussions, whether or not the discussion occurs on traditional social media websites.

media actively to fight crime by soliciting information about wanted individuals, criminal activity, and missing people. While people with tips are urged to call the law enforcement department or a designated detective directly, it is typical that people will comment on the post with observations and theories about the scenario presented. These comments are informal, and it is unknown if the police ever take them seriously or do anything with the information. However, even the most innocuous comment may lead to a viable tip, as Europol has found.

Europol is the chief law enforcement agency of the European Union, headquartered in The Hague. It is charged with supporting the 27 member nations of the EU against all kinds of inter-nation crime, but is primarily focused on terrorism, organized crime, and cybercrime. One of the online crime-fighting programs Europol has initiated is called "Stop Child Abuse - Trace an Object," which calls for people to view photographs of everyday items found in child abuse investigations in an effort to identify where the items are from, a key piece of information needed to solve the case. The "Stop Child Abuse - Trace an Object" website asks for crowdsourced help, saying, "We are convinced that more eyes will lead to more leads and will ultimately help to save these children." Europol has seen success with this program. A 2018 press release indicated that in just one year's time, 21,000 leads had been submitted to Europol, and 79 objects had been identified. Because investigations are lengthy and ongoing affairs, the agency must be reserved in what it reveals, but it did say:

Based on the information you provided, investigations are currently ongoing in several countries. These investigations take time and have to follow a judicial

process. We try our best to ensure the child in the related image has the best chance of being identified and safeguarded – this explains why we have not been frequent in our feedback to you. We can however tell you that two victims in Russia have been identified because of your leads about an object in this campaign. While the photos date back to over a decade, it is only thanks to your help that the investigation into the offender can now progress (Europol, 2018).

How Citizens Crowdsource to Solve Crime

One of the most popular online true crime social networking communities is Websleuths.com. Websleuths isn't social networking like Facebook or Twitter, though; it's a message board where users come together to discuss any and all aspects of true crime, according to Websleuths.com operator Tricia Griffith, interviewed in the *Virginia Quarterly Review*:

All you need is a proper e-mail. Then you come in and pick your username and start joining in the discussion. There are thousands of cases. If you have an expertise, there is probably a chance that at some point that expertise will be needed to continue a discussion. But we have very strict rules: no name-calling, no threatening. You can't threaten to kill someone. It's a very civil discussion (Hitt, 2016).

One of the key differences of Websleuths.com is its moderation. Griffith's intention has always been for it to be a civil place, in contrast to other online communities known for more hands-off approaches. Posting information about a suspect is prohibited, unless

the suspect is already known to the public through the media. Speculation is kept to private emails (Murphy, 2017).

Griffith also intends for it to be a place where law enforcement agencies can turn to for help on cold cases:

We had a detective call from a small office in Nebraska. He had a 20-year cold case he wanted help with. It was a body found on a trail, a male who had been murdered. That's all he knew. The only physical evidence he had was an old t-shirt that the victim was wearing with an unfamiliar emblem on it. He'd been trying to find information about where the shirt was made, where the emblem was from, or anything that may result in a lead. He turned it over to us and our members solved it.

One of our members was on vacation when we posted it. She came home, saw the post, and went to Etsy. She found the vintage t-shirt on Etsy, and within 24 hours had found out everything about it. She found out when and where it was made, where you could buy it, who owned the factory-- everything. It worked exactly how it's supposed to work.

That's the thing we're good at; if there's evidence that you're stumped on, let us look at it and help you. If they work with us, we can help them. Not in all areas; we can't track people or look at evidence under a forensic microscope or even necessarily solve anything in its entirety. But when you have thousands of people looking at something, you have thousands of different backgrounds--from professionals to military to homebound men and women, even--from all over the

world. That's a massive collective of knowledge that the LEOs² may not have access to with the resources at their disposal (CrimeCon, 2017).

Griffith admits that their relationship with law enforcement in general isn't great, and that "[police will] pay to bring in psychics before they'll ask amateurs for free help" (CrimeCon, 2017). But, she hopes that the persistence that Websleuths members show in resurrecting interest in cold cases, and the vast depth of knowledge the site's members have in all manner of topics--as well as their motivation to help others--will help solve cases. "Social sleuthing, web sleuthing, is going to be the wave of the future. Law enforcement agencies have to get used to that, and they have to learn that there is an incredible resource they're not tapping into" (CrimeCon, 2017). In another media interview, Griffith remarked:

You give us something mundane that you've looked at for 20 years, we're looking at it fresh and we're excited. That's the beauty of it. Thousands of fresh eyes looking at it for nothing. ... We're just waiting for orders. We can do all kinds of things for them and they can take all the credit. We just want to help (Gane, 2019).

To Griffith, the Internet provides law enforcement with an incredible gift: countless hours of volunteer labor and expertise, just waiting to be tapped.

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² Law enforcement officers.

Does Websleuthing Actually Work?

A number of high profile cold cases have either been solved by amateur web detectives, or their investigations have been helped by contributions made by websleuths.

Examples include:

• Michelle McNamara and Paul Haynes first became acquainted on an EAR-ONS³ message board on an A&E Network website dedicated to unsolved cases. Both hidden behind aliases, the two spent "as many as 15 hours a day mining data for clues about the killer's identity," with Haynes "using his downtime at work searching online databases and public records for names of potential subjects" (Shammas, 2018). Haynes and McNamara theorized that the decades-cold case could be solved. McNamara, a true crime blogger and writer, eventually began writing a book on the Golden State Killer--a name she reportedly penned--but died before it was finished. Haynes, McNamara's husband Patton Oswalt, and investigative journalist Billy Jensen finished the book, I'll Be Gone In the Dark, and it was published just weeks before the Sacramento Sheriff's Department announced in April 2018 that they had arrested the man they believed to be the Golden State Killer, Joseph James DeAngelo, Jr. DeAngelo is currently awaiting trial. While McNamara's research and book didn't directly contribute to the law enforcement investigation, she is credited by police with providing exposure and publicity for the case, which had a large geographic range and long time span (Alter, 2018).

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³ EAR-ONS stands for "East Area Rapist - Original Night Stalker," two of the original monikers given to the same criminal operating in the East Bay and Sacramento areas of California in the 1970s.

Abraham Shakespeare, a transient laborer-cum-instant millionaire after winning
the state lottery, was murdered in 2009 in Florida. After Websleuths.com
members started asking questions, a key suspect, Dee Dee
Moore--Shakespeare's "financial advisor"--registered on the website to defend
herself, albeit anonymously, against mounting questions about her involvement
in Shakespeare's muder.

Websleuths began digging, prompting Moore to register for the site under an anonymous name to defend her actions. "She came back to me in an email and said I don't know who is posting it, that wasn't me, and I said, 'That's funny, the IP address in this email matches the number of your computer," recalls Tricia Griffith, who has co-owned the site since 2004. "I had a detective call me up and say this is just great." Moore was eventually convicted (Murphy, 2017).

A young man found dead in Virginia in 1995 was identified in 2015 as 19-year-old Jason Callahan of Myrtle Beach, South Carolina after amateur web detectives contributed to the cause. Callahan had been killed in a car accident and was rendered unidentifiable by his facial injuries. The few clues found by police included a Grateful Dead concert ticket stub in his pocket, which gave him the nickname "Grateful Doe." With the few clues police had exhausted or leading nowhere, the case went cold. Callahan was finally identified after 20 years when a missing person's report containing a composite image of what the missing person, Jason Callahan, might have looked like was matched up with a photo of

Jason Callahan in an online Grateful Dead fan community. People online helped in the search, according to a *New York Times* article:

The roommate didn't know Jason's last name, but the case was also helped along by people on Facebook, Reddit and Websleuths, a site dedicated to unsolved mysteries. A Grateful Doe Facebook page created in 2012 had drawn more than 13,000 followers who were interested in identifying the crash victim. On Reddit, more than 3,000 sleuths had joined a subReddit of the same name. Many users circulated sketches and composites of Grateful Doe within online Deadhead communities and local media outlets (Rogers, 2015).

Yardley, Lynes, Wilson, and Kelly (2018), criminology scholars interested in the phenomenon of websleuthing, acknowledge that "Any private citizen with an interest in crime and a smartphone, laptop or tablet can now go online and connect with others in crowdsourced amateur investigations" (p. 82). As Griffith, owner and operator of Websleuths.com indicates, law enforcement isn't always keen on interacting with information provided by these amateur detectives. And sometimes, this crowdsourced information is just plain wrong, which can yield disastrous results. In the April 15, 2013 Boston Marathon Bombing, the apprehension by police of suspect 19-year-old Dzhokhar Tsarnaev happened after users on Reddit virtually nabbed another completely innocent suspect, Sunil Tripathi. Tripathi was a student at Brown University who was mistaken by some users on Reddit for one of the two suspects under

surveillance and wanted by the Boston Police for the bombings.⁴ It only took four hours after grainy surveillance photographs were released by police for a few major media outlets to confirm--based on an off-hand remark that one of Tripathi's classmates made online about a passing resemblance between the wanted suspect and Tripathi--that Sunil Tripathi had been pinpointed as the second bomber. Rumors spread around a subreddit called r/FindBostonBombers, which posted personal information about purported suspects and was termed "digital witch hunts of innocent people" (Abad-Santos, 2013). After it was revealed that Tripathi was not the wanted man, the general manager of Reddit, Erik Martin, apologized to the Tripathi family via an official company blog post.

Another noteworthy example of Internet vigilantism concerns the death by suicide of Canadian teen Amanda Todd. Todd, of Port Coquitlam, British Columbia, was only 15 years old when she ended her life on October 10, 2012 after being targeted online by a man who exploited her for nude photographs, which he then reportedly distributed to her friends and family before repeatedly blackmailing her for several years. Online news reports indicate that Todd "did everything right: asking for help, relying on friends and family, getting psychiatric help. But she still fell victim to someone else's recreational hatred. The Royal Canadian Mounted Police put an estimated two dozen officers on the case to find the man who victimized her," but were unable to name any suspects (Murphy, 2012). Just days before she died, she posted a video to YouTube expressing her despondency over being cyberbullied by an older man who exploited her. Just days

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⁴ By the time of the bombings, Tripathi had been missing for several weeks--and was, in fact, already dead by suicide.

after her death, the "hacktivist" collective Anonymous targeted a man in the Vancouver, British Columbia area, "doxxing" him--releasing personal information about him online. The information Anonymous released included his social media accounts, "links to his accounts at perv sites like Jailbait, photos, chat transcripts, and home address" (Murphy, 2012). However, Anonymous got it wrong, and the home address posted was not the right address, according to online sources. The Vancouver-area man fingered by Anonymous, according to the Canadian Broadcasting Corporation, was also accused of posting to child pornography websites, and sustained threats online by strangers vowing justice for Todd (CBC News, 2012). In this case, at least two individuals--the person living at the address reported by Anonymous, and the incorrectly identified suspect--were affected by the witchhunt, which must have been intensely disturbing since it dealt with the self-inflicted death of a teenage girl and the highly taboo and illegal crime of child pornography. Eventually, Dutch citizen Aydin Coban was identified as the actual perpetrator by Canadian police and is currently in prison in the Netherlands for an 11 year sentence for the online abuse and for blackmailing 34 young girls and men (Strandberg, 2019). Canadian police are currently attempting to extradite Coban to British Columbia to stand trial for "extortion, criminal harassment, child luring and child pornography" in the Todd case, but due to a stalemate between the two national governments, Coban has not yet arrived in Canada (Brend, 2020). Anonymous has launched a number of attacks against pedophiles and child pornography websites, including "Operation DarkNet in 2011 that saw 40 child porn sites hit with a distributed denial of service (DDoS) attack" and knocking off an estimated 20% of all child porn

sites hosted on Freedom Hosting II on the dark web in 2017 (Cuthbertson, 2017). It appears that stopping child pornography is a core activity for Anonymous, a group that sees itself as a loose collective of anarchist world citizens brought together by and through the Internet.

The Reddit FindBostonBomber vigilantes and Anonymous aren't the only digital posses in cyberspace. Other charges of harassment, intimidation, and provocation have been leveled at people calling themselves web detectives or amateur sleuths when their "investigations" become too close for comfort for their target. Even simple points of speculation can spiral out of control and become construed into destructive and potentially damaging--or libelous--statements. Other times, it just leads to burnout and anger, as what happened when the unidentified decedent known as Lyle Stevik⁵ was finally identified through investigative DNA in 2018, due in part to a group of dedicated websleuths who wanted to see the case through. When the case was finally solved, and Stevik's family decided to keep the details private, some websleuths were not happy with this outcome:

The subreddit's members wrote over and over that they felt like they had been used — that they deserved to know Lyle's identity after all the work they had put in. "I get that we don't do this for the recognition, but it does seem 'sometimes' disingenuous to want the public to help, then just say 'we want the person to

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⁵ Lyle Stevik was an alias for the man found dead at the Quinalt Inn in Amanda Park, Washington, on September 14, 2001. Stevik's true identity was revealed in May 2018 after investigative DNA work with the DNA Doe Project, but this information has been withheld from the public, per Stevik's family's request (Lyle Stevik, 2020). However, it is not impossible to find out through Internet searches.

remain anonymous.' It's their right, but it still seems almost like 'using,'" wrote a Reddit user mollymuppet78 (Eveleth, 2018).

Motivations for Websleuthing

If websleuthing can be so time-consuming, repetitive, leading to dead ends and submitting matches to law enforcement but never hearing back, why do people do this tedious, unpaid, detail-oriented work?

Scholarly data is scant in this domain (Stokes, 2018, p. 49). In his 2018 thesis for a master of science degree in information science from the University of North Carolina at Chapel Hill, Samuel L. Stokes set out to investigate the question of motivation in websleuthing. Through a series of interviews with six websleuths who work exclusively to identify unidentified deceased individuals--and who have successfully identified these UIBs, or unidentified bodies, confirmed by law enforcement--Stokes discovered that there are a number of motivating factors, including:

• The intrinsic need to know. Humans have an inherent need to solve problems and resolve mysteries, and that is done through information seeking, an activity inherent to websleuthing. Stokes cites Nicholas Belkin's "Anomalous States of Knowledge" as a motivation to websleuth to solve the mystery of UIBs, because "the investigators' drive to seek information in hopes of identifying a body are driven by a sense of 'wrongness not only in an informational sense, but in a humanitarian sense as well. When a person remains unidentified, the world seems somehow out of balance, opaque" (Stokes, 2018, p. 8).

- Websleuthing serves as a "serious leisure activity," per Robert Stebbins' theory of "Serious Leisure," as it calls upon the websleuth's "tendency towards perseverance" and extreme effort and knowledge in the non-vocational field (Stokes, 2018, p. 10). Websleuths, as a group, are generally "highly autonomous, intrinsically motivated individuals" who work in positions that do not adequately stimulate their analytical natures (Stokes, p. 15).
- In personal interviews, Stokes uncovered personal motivations to do the work, such as websleuths' childhood memories of missing persons and concern for those people who were never found (p. 18); family members who went missing (p. 23) or who were involved in high-profile crime cases (p. 35); a family member's discovery of an UIB (p. 27); a faith-driven urge to participate (p. 30); and prior search party work trying to find missing people (p. 33).
- Overall, the websleuths work to "give unidentified bodies their identity back"
 (Stokes, 2018, p. 49). The concern they show for these lost, forgotten people--kin to someone, somewhere--is probably indicative of successful interpersonal and familial relationships, and a well-developed sense of self.

As previously stated, few scholarly resources exist to review to explore motivations for websleuths. Criminology scholars Huey, Nhan, and Broll, in a 2012 article, detailed the motivations of websleuths on an online message board, where members listed why they joined the website. The top answer cited, as coded by the researchers, was "television or other media sources," which was explained as "exposure to media programmes or news stories related to online dangers." Huey et al.

(2012) also discovered that people often had more than one motivation, and they were often related to a more intimate reason, like personal experience with crime or a desire to prevent others from becoming a victim of crime. Finally, the group also discovered that for many people, they wanted to "seek justice" because they recognized that catching criminals is "a numbers game" and that their "collective action" could help overcome "real or perceived inadequacies of the criminal justice system" (p. 87).

In her work as executive director of NAMus.gov, B.J. Spamer has formed observations about why websleuths toil on this often tedious and thankless work. In a personal interview, Spamer (April 23, 2020) related that

[What] I like to see most are family members of the missing actually sitting down and taking advantage of [NAMus.gov] because we have had family members resolve their own cases. We had a [woman], her sister was missing for 25 years and she sat down at the keyboard and ran two or three searches of the name of unidentified person cases and found her own sister. She just immediately knew that was her sister because she saw the tattoos and the other demographic information. She called law enforcement...and we were able to help with a DNA comparison and get her [sister] identified pretty quickly. And it's just incredible when you see people just not involved in law enforcement, just members of the public, a lot of them impacted specifically by the disappearance of a loved one. It's such an empowering thing for them to be able to sit down and do something to search for their own missing person. So it's a really great tool. We've had some public that did great research...there might be an unidentified

[person] that has a piece of jewelry with a symbol on it, and they do research and are able to figure out what that symbol means...I think that's the most important thing that anyone involved in crowdsourcing or helping with these cases, the most important thing is to try to focus on the things that you know, haven't been done yet.

For those who can provide closure for their family, or provide the missing link of information that can solve a case, Spamer's remarks make a lot of sense. What she doesn't talk about, though, is the overwhelming need for humans to know the whole story. In her position, Spamer is privy to details like the hold back information that isn't released to the general public. This information is often the key that law enforcement uses to confirm they are dealing with people genuinely involved in a crime. For websleuths, though, it can be frustrating to not have all of the details; with the complete story, perhaps the websleuths could actually solve the case. The secrecy of the police in investigations creates a power imbalance that may not actually be necessary, and could in fact be holding back progress. This calls back to Stokes's first point of "information seeking," and poses the question of if the websleuths' need to know more details of crimes could ultimately lead to more crimes being solved.

What Can We Learn in Communications from Websleuthing?

Websleuths work in a stigmergic fashion. They are being driven by an idea, and organizing around the idea; working independently, and at the same time collaborating with one another, albeit asynchronously; and working without regard to leadership, and without a leadership framework. Some communities, like Websleuths.com and

Europol's "Trace an Object" program have rules in place and more of a structure, but the overall spirit of the work also reflects stigmergy: independent actors, reflecting coordination. This is a key component of mass collaboration projects, especially those that take place online, as administrative law scholar Mirko Pečarič notes: "...When diverse individuals concentrate on the same problem in parallel, their aggregate solution will be usually better than that by any single person. This phenomenon is known as the 'wisdom of crowds' or 'collective intelligence'" (Pečarič, p. 15). Pečarič opines that "Transparency, [public participation] and collective wisdom are not ends in themselves: they should be implemented as much as possible" to solve problems that can't be tackled by single government entities alone (Pečarič, p. 26). While Pečarič doesn't specify which questions "transparency, public participation and collective wisdom" are trying to answer, he doesn't need to; the point is that crowdsourcing can prove to be useful in a democractic society, especially when civic engagement is desired and encouraged--an ideal of the American society. This is especially useful, Pečarič says, when considering Foucault's power relationships within a democratic society, and the people's role in "[overcoming] the formal levels of government and [searching] for answers for human engagement in cooperation, communication and decision-making" (Pečarič, p. 8).

When considering the role of the people in democracy, we must consider the role of the public sphere, or public. Jurgen Habermas explained the public as the idealized place where a regular citizen would engage in discourse about matters of general public interest, acting on behalf of herself and not on behalf of any business or other interest.

In Habermas's estimation, publics were essential for democracy as they laid out a way for private citizens to organize ideas and positions in relation to the government. While a worthwhile theory, publics have been a challenge in practice. For many Americans, the role of the public sphere has never been in a town square (too busy working or caring for a family) or in a governmental building (too intimidating or otherwise disenfranchising). The classic American publics is the media: the "Letters to the Editor" section of the newspaper, a lively exchange of ideas between newspaper readers; the "man on the street" interviews on the evening news, where concerned individuals could give their opinions on the goings-on of the day; and now, the multiple social media and Internet platforms established to create and share content. Although many people use social media and the Internet to strictly share cute cat videos, it is now the de facto tool of social change and the ultimate public, open to all with a connection and a device.

While websleuthing isn't a matter of expressing one's opinion to the public, it does exert pressure on law enforcement agencies that are traditionally very resistant to unsolicited help. The "police subculture remains a major impediment to increased nodal partnerships with civilians," according to Huey et al. (2012, p. 94). These same criminology researchers found that while some police welcomed outside help with certain investigations, other agencies rebuffed assistance, citing reasons from "maintaining the integrity of a case" to "such groups could place themselves within dangerous circumstances," even saying that well-meaning citizen detectives can "blow a case" (Huey et al., 2012, p. 93). The police officers interviewed in their review indicated that websleuths' involvement in solving crime should be strictly limited to

"providing basic tips" (Huey et al., 2012, p. 94). Spamer gave a slightly different perspective on working with websleuths in a personal interview (April 23, 2020):

[Tips from websleuths are] a double edged sword because sometimes we get good information, and sometimes they can really be a lot of white noise that takes up resources that really need to be used for the investigation...When I say it's sometimes a double edged sword, I think that it's important to...make sure that any kind of volunteer efforts are responsible efforts. We've seen sometimes there are public message boards that theorize about what could've happened in cases. I think it's important for the public to remember that families sometimes see those as well. It's really important to remember there are families behind every single one of these cases, and we need to behave responsibly because of them. We've seen public members reach out to families of the missing, and sometimes that can be really detrimental or can be really traumatic for those families as well. And certainly there are privacy issues.

All of these are compelling reasons that could drive police away from accepting tips from the public, regardless of how specific or informed the tip might be, or how cold the case might be. If the websleuth has a reputation for spinning outrageous theories that aren't grounded in common sense, or if a websleuth provides very generic tips, it's likely that law enforcement will not take the contribution seriously. But there are serious contributions as well--tips that have led to solving cases because police just didn't have the speciality knowledge required, but a websleuth did.

At the same time, some websleuths can argue that their work can contribute to policing, and thus, enhancing the safety of communities everywhere. This may even lead some people to say that they are participating in the ultimate public, as they are stepping up as a private citizen (or as a group of private citizens, in the case of loosely organized websites like Websleuths.com) to provide an answer to a problem that government is liable to solve. Especially because solving crime involves justice, it is important to have as many voices heard, websleuths might say--showing as much information as possible--to ensure that the government, who holds the power, can make the best decision. On the other hand, the police, which is an arm of the government, would likely say that they do have policies and procedures that are carefully considered and established; a fair judicial system that includes constitutional rights afforded to any defendant; and an open career path for anyone who wants a job in law enforcement to become a professional detective. Additionally, the media--traditionally known as the Fourth Estate for its power of advocacy and framing--serves as both an unofficial watchdog of the government and voice of the people.

As the general public already contributes to police work, through providing tips to law enforcement in response to media appeals, the role of both the traditional media and social media continue to be intrinsic to successful crime control. This circles back to cultivation theory: if people continue to be exposed to the storytelling elements of crime--both true crime in the news and fictionalized crime in dramas and other presentations--interest (and perhaps even fear) will be sustained in true crime, because people will believe that crime is a part of their community. Although the Pew Research

Center facts show that violent crime rates in the United States continue to drop, it is unlikely that violent crime will ever vanish (Gramlich, 2019). Nor will the human interest in the fascinating subject. The cycle will continue.

Conclusion

Because websleuthing is a relatively new phenomenon, sprouting up within the past 20 years with the advent of the Internet and the commonality of both Internet-connected devices and widespread true crime content, more research is needed in this domain, in general. This is to be expected; research questions arise out of observations made by people in the field. Out of the myriad research questions to consider, there are several that are pertinent to the field of critical communication.

Scholars should seek to explore the connections between communication theories and the motivations of websleuths, especially concerning new media applications. It would also be worthwhile to explore how websleuths characterize their contributions to police work, particularly if they see their work as strictly related to solving a case, or contributing to a participatory form of democracy, like envisioned by Habermas's publics. How does websleuthing work in traditional policing, especially in the way that we think of traditional police work as presented in popular culture?

Websleuthing work appears to cross over into the sphere of participatory government as referenced in this paper by Mirko Pečarič, and can help to answer the question of if a

group of people really can provide answers that are better than a single expert when trying to solve a problem.

More research is needed into the risks and benefits of crowdsourcing crime solving, especially into the ethical considerations of it. Does crowdsourcing really provide a benefit to police? Or does it place regular people in danger, at the risk of ruining police procedural investigations? Are websleuths justly prohibited from learning the outcomes of the cases that they helped solve? Does the websleuth, by virtue of playing a role in the investigation, have any stake in learning about the outcome? How do these questions about power relations of the police to the people relate to the ideal of Habermas's publics?

Finally, what are the future implications for communications technology in websleuthing? Will law enforcement possibly ever develop artificial intelligence tools that can trawl the Internet's trillions of gigabytes of data, looking for clues that once only human websleuths may have been able to find? Or are these tools even possibly in use right now? What does that type of scenario--a natural language program machine, with biases only as good as its programmer--hold for justice?

So long as there are crimes to solve and an Internet connection, we can be sure that websleuths will be on the case. What is an interest, hobby, or even avocation for these people has created a good deal of great work, but negative aspects cannot be overlooked. The key to successful integration of websleuthing to crime solving will be more research to answer pertinent questions about its role and vital limitations to ensure its proper integration alongside traditional police work.

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