Abstract

This essay engages with the question of surveillance and evidence by considering the use of media forensics in journalistic storytelling. The use of video evidence and other data derived from surveillance systems to assemble investigative news results in a documentary form of what Thomas Levin (2002) calls surveillant narration—a tendency in cinema to treat surveillance thematically while at the same time incorporating it into the structure of the narration itself. If using surveillance as the structure of journalistic narration seems like a natural fit, it is for its aesthetic effect as much as its evidentiary value. Forensic journalism is emerging as one site where media forensics becomes formalized as a product of popular consumption and sense-making, taking its place alongside forensic-themed reality television and fictional crime dramas like CSI, as much as real forensic investigations and legal proceedings.

Introduction

Forensic epistemology claims to make the most literal sense of things, emphasizing only the narrowest interpretation of evidence, at times even claiming to jettison interpretation entirely. This makes it well suited to journalistic as well as legal modes of address, which are premised on leaving interpretation open to audiences of presumably rational evidence interpreters. But there are problems with claims to the interpretation-free presentation of evidence, and they are especially significant when it comes to the burgeoning domain of media evidence. While we typically think of recorded video from surveillance systems and mobile media as having evidentiary uses in the legal system, these recordings often travel into other domains of media production. Video evidence now circulates into dramatic journalistic and documentary storytelling, for example, in the process extending a forensic-media aesthetic into popular forms of cultural sense-making.

When the evidence-production techniques of media forensics get deployed as a form of dramatic storytelling, the result cannot help but create category confusion between facts and interpretations, material things and representations, real events and realistic depictions. These indistinct categories are inextricably tied to issues addressed by the other contributors to this Dialogue Section on surveillance and evidence: Christina Spiesel’s concept of “naive realism,” Sandra Ristovska’s call for a more adequate legal system response to the unique problems that video evidence poses, and Mary Bock’s discussion of the paradoxes of “audio-visual participation in the public sphere.” What is the relationship between proliferating forms of surveillance and media, on one hand, and the ways their recordings are put to use as evidence, on the other? What do the varied evidentiary uses of prolific media recordings mean for modern forms of sense-making, both within and beyond the legal system?
Surveillance and Evidence

Surveillance studies scholars make an important distinction between real-time observation or live supervision, on one hand, and bureaucratic forms of record-keeping or dataveillance, on the other. For the sake of probing the relationship between surveillance and evidence, it makes sense to focus less on surveillance as the real-time activity of monitoring people and more on surveillance as record-keeping: the uses of stored recordings, whether audiovisual, textual, or coded information. But the distinction is not as clear as it seems. Live surveillance video feeds are examples of what Harun Farocki (2004: 17) has called operative images, “images that do not represent an object, but rather are part of an operation.” In this definition, live video loses its operative quality once it becomes a recording and made available for other, post-operative uses. Recorded forms of operative media are used to replay those operations after the fact, as in the rebroadcasting of videos of bombs hitting their targets. These media recordings carry with them an operative aesthetics, a sense of being part of a real-time operation, and their forensic uses as recordings are also operations of a sort. In addition, all forms of media transmission require inscription, and when surveillance systems are designed to automatically inscribe records in media storage, the distinction between real-time supervision and recorded information dissolves in an instant.

There is also an important, if fuzzy, distinction between recordings and evidence. All stored records have evidentiary potential, but their status as evidence is not automatic. We tend to think of recordings as evidentiary simply by nature of being captured and stored, but if recordings are not made use of, they never become evidence. And making use of recordings as evidence is not so simple. The status of recordings as evidence takes shape in the forms of analysis, or recounting of events, that leverage the evidentiary potential of those recordings. Turning media records into evidence is an analytical, interpretive activity, and, inescapably, a media production process. This process has its own, expanding field of professional expertise—the field of forensic video analysis, also known as digital multimedia forensics.

Media Forensics

Thanks to the spread of surveillance and mobile media infrastructures, the investigation of crime has become a media-archaeological project. Practitioners of the field of digital multimedia forensics excavate media recordings stored on hard drives and servers for traces of images, sounds, and coded data relevant to crimes deemed worthy of investigation. Individuals trained in doing this type of media work spend hours of time searching for pieces of the recorded past that have potential evidentiary value, to be analyzed, worked on, and assembled together with other evidence to tell coherent stories about events, people, objects, or moments of time. Media recordings and associated metadata are now routinely used to establish proof that crimes were committed, by whom, and with what instruments. To do so, forensic analysts must verify the spatial location of recordings and place them on a timeline. Digital nonlinear editing systems and geolocation technologies have proven useful for these practices of media evidence assembly.

Not very long ago, the field of forensic video analysis focused on video recorded on a variety of local storage devices for CCTV systems, beginning with magnetic tapes and migrating to digital video recorders. Today, this field is developing and applying its particular brand of forensic expertise to mine, analyze, and assemble recorded audiovisual media and metadata recorded on cloud servers from a wide range of sources, including IP cameras, smartphones, police body-cameras, dashboard cameras, drones, and other mobilized recording devices. In response to the computerization of video, video forensics is essentially becoming a form of computer forensics. This field requires the specialized perceptual capacities of human beings, trained to excavate and analyze media by adopting computational ways of seeing and listening. Forensic media work marries computational perception with a forensic sensibility.

The field of digital multimedia forensics is positioned on a fraught set of sociotechnical fault-lines. The field is tasked with, and taking upon itself, an imperative to preserve the principle of photographic truth in the context of expanding surveillance infrastructures, built and operated by a dispersed array of public and private entities, as well as proliferating mobile media devices, recording ever-expanding volumes of data.
and audiovisual content. Moreover, it has taken this role upon itself to speak with authority about digital media evidence in a social, cultural, and political context of intensifying fragmentation, where a common ground of truth has been profoundly destabilized, where no interpretations of events or phenomena can solidify as definitive. While societies of consensus have never existed, early twenty-first-century forms of fragmentation are playing out at a distinct media-technological conjuncture.

**Media Forensics and Human Rights Advocacy**

The practices of media forensics are not confined to the legal system, or to one community of experts. Notably, human rights advocates are appropriating the tools of media forensics to document state and corporate crimes, including human rights violations and environmental destruction. Eyal Weizman and the Forensic Architecture group at Goldsmith College in London “undertake advanced spatial and media investigations…with and on behalf of communities affected by political violence” (Forensic Architecture n.d., para. 1). The Bellingcat collective of “citizen journalists” similarly uses open-source tools, including geo-location via Google Earth and Google Images, to investigate secretive military operations, disinformation campaigns, and activities of extremist groups.

Weizman (2015: 234) uses the term “forensis” to describe “something akin to a ‘critical forensic practice’ that includes both the production of evidence and the querying of the practices of evidence making.” Forensic activists are engaged in a form of counterforensic practice. This practice is in some ways reflexive about the process of evidence production, a form of counter-surveillance sensibility that aims to both “understand and map the logic of surveillance” and “investigate the means of state investigation” (Weizman 2017: 68). The evidence produced through these counterforensic practices lacks a well-established forum for presentation. It is more likely to be installed in art galleries or reproduced in progressive publications than to be adjudicated in a legal forum (Weizman 2017).

**Media Forensics and Documentary Journalism**

Not all appropriations of media forensics outside of the legal system can be classed as counterforensic. The practices of media forensics have also been taken up in the production of news about crime and policing. Forensic journalism is emerging as one site where media forensics becomes formalized as a product of popular consumption and sense-making—a hybrid form of crime reporting. By formalized I mean *given a form*, one that shares formal and aesthetic qualities with other televisial media. Surveillant televisuality appears across a wide array of screened content, from actual surveillance video feeds to viral videos on social media, reality television, fictional crime dramas, and proliferating forms of online multimedia journalism.

Take for example a documentary posted to the *New York Times* online feature, “Visual Investigations,” titled “How the Las Vegas Gunman Planned a Massacre, in 7 Days of Video” (Browne et al. 2018). In this compilation film, Malachy Browne and his colleagues at *The New York Times* assembled video and other data documenting the activities of Stephen Paddock in the week leading up to the mass shooting at the Route 91 Harvest music festival in Las Vegas. On October 1, 2017, Paddock opened fire on concertgoers from a perch on the thirty-second floor of the Mandalay Bay Hotel, killing fifty-eight people and wounding 413 more in ten minutes. Browne and his colleagues compiled their visual investigation from segments of surveillance video captured on the Mandalay Bay Hotel’s security system.

Casinos are heavily surveilled spaces, in this case providing a wealth of visual source material showing Paddock as he moved about the premises: pulling up to the valet area and having a bellhop remove luggage from his minivan, entering through a revolving door in the lobby, moving in and out of elevators, walking around the casino floor, sitting at the gambling machines, and more. In his voiceover, Browne explains that the videos were “obtained exclusively by the *New York Times* from MGM Resorts.” Other source materials used to compile a week’s worth of a mass shooter’s life include local news coverage, evidence photos from
an “LVMPD Force Investigation Team Report,” and Paddock’s cellphone records and internet searches recovered by the police. In any particular moment, the activities documented in the images appear normal and banal. But the assembled video shows Paddock stockpiling an arsenal of lethal weapons over the course of the week, enlisting the hotel bellhops, faces redacted in the final cut, to unwittingly help him carry load after load of suitcases to his hotel suite.

The assembled video is the endpoint in a labor-intensive process of sifting through volumes of the video recordings to locate visual traces of Paddock, isolating those segments and then placing them on a timeline in chronological order. The relevant recorded fragments could then be synchronized with other time-stamped evidence, including, notably, Paddock’s cell phone location data. Using his cell-phone location data, the compiled video tracks Paddock’s movements even as he leaves the field of view of the Mandalay Bay cameras, zooming out from an external view of the building using a Google Earth satellite image map. A line retraces Paddock’s path as he drives home, stops at a gun store and a gun range, and at a location near another music festival he was apparently scoping out. Browne’s voice-over recounts the amount of time Paddock spends at each location. For example, a split-screen displays a Google Earth map image on the left and an image of Paddock’s house on the right. The voice-over explains: “Cell phone records show that he stays the night and spends most of Tuesday here. Around 8 p.m. Paddock returns to Las Vegas” (Browne et al. 2018). The drama of the assembled surveillance videos and other evidence unfolds to ominous music.

The formal style and mode of address of this assembled piece of forensic journalism is one of “surveillant narration,” a term that Thomas Levin (2002) coined to capture an intensifying rhetorical trend in late-twentieth-century cinema. Here, surveillant narration is used to tell a story about real events, rather than the more artful form of realist fiction that Levin and other cinema studies scholars examine. This use of surveillant narration in journalism suggests a slippage between forensic and journalistic forms, forensic aesthetics and televisual news. This is not the importation of surveillant aesthetics into cinema, as Levin theorizes, but the adoption of surveillant narration to reconstruct real time as drama. The events themselves have an inherent drama, so assembling the media recordings of those events in a dramatic way may seem like an obvious technique of news production. But it is a significant formal innovation in that long-standing category confusion between realism and reality that is at the heart of modern sense-making.

The Remaining Problem of Interpretation

The compiled Las Vegas shooter video is a revealing and innovative example of forensic journalism, with its potential to formalize media forensics for popular consumption and sense-making. But what is this piece of forensic journalism evidence of, in terms of the actual person and events documented? How are viewers to make sense of this assembled evidence? What is the point, beyond the assembled details, of this “picture of an ordinary gambler” that “disguises a far more sinister intent” (Browne et al. 2018)?

By assembling the trace evidence and staying close to the details, the story marries the values of forensic and journalist sense-making, with the final interpretation presumably deferred to the audience. The concluding line of the voice-over captures the limitations of these converging epistemologies in terms of offering a deeper level of understanding: “Almost six months since the attack,” Malachy Browne notes, “Paddock’s motive remains unknown” (Browne et al. 2018). If Paddock’s motives for mass murder are unknowable (and maybe irrelevant), is this to be interpreted as a story about the need for gun control? We might hold out the desire for the assembled video to convey something to that effect. Not only do people with guns kill people, but this machinic relationship is evolving, such that people with access to many, extremely lethal guns kill many people, in very short bursts of violent time.

Yet the video could just as easily be interpreted as a story about the banality of evil or as a text having no interpretation other than its dramatic value. In this sense, it is revealing of the way media forensics has migrated into a more popular forensic imaginary, enlisting media audiences as detectives envisioning themselves as solvers of unsolved crimes. This use of surveillant media for reality-based storytelling is
commensurate with what Comaroff and Comaroff (2016: 82) identify as “an intense longing for conviction,” in both senses of the term, evident in so much of the popular culture of crime and policing. In the US, the popularity of television shows like CSI and forensic-themed reality television programs like Forensic Files suggest the extent to which forensic science captures the public imagination. Forensic television makes use of source material from the logistical media infrastructures of policing and security, leveraging it as a means to assemble true-crime storylines. A forensic sensibility has become a defining feature of the contemporary structure of feeling in the political cultures of places formerly known as liberal democracies. What better way to assuage the anxieties of extreme violence than through a combination of media-forensic analysis and reality-based dramatic narration? The appeal of a false forensic certainty seems like a fitting, if circumscribed, response to the intensifying anxieties associated with social fragmentation, economic precarity, and toxic politics—the totality of the contemporary crisis.

My own interpretation of the evidence assembled in this video is influenced by Natasha Dow Schüll’s brilliant book, Addiction by Design: Machine Gambling in Las Vegas (2012). In the days and nights leading up to his shooting rampage, Paddock passed his time “playing video poker for hours in the casino” (Browne et al. 2018). It probably goes without saying that Stephen Paddock was a gambling addict. How else does one sit for hours in front of poker machines in between stages of assembling an arsenal for mass murder? Whatever his motives for wreaking havoc on a concert and destroying human lives, he stopped to get his fix, to check into the “machine zone,” for some “time on device” (Schüll 2012). For me, one takeaway of the assembled video is that, in preparation for the act of carnage, this “lonesome figure” with “sinister intent” (Browne et al. 2018) tapped into another sort of machinic relationship—one that, like automatic weapons, similarly liquidates life by design.

I would like to think that my interpretation of this video has no basis in what Christina Spiesel (in this issue) calls “naive realism.” Spiesel argues that people’s confusion in discerning reality versus artifice stems from the fact that they use the same perceptual capacities for experiencing both the real and the virtual. I want to suggest that media production practices, and the resulting aesthetic and narrative forms, perform at least some of the boundary-blurring work for us. And where Sandra Ristovska (in this issue) advocates for a more adequate framework for the legal incorporation of video evidence, I want to suggest that it is also necessary to follow video evidence as it circulates beyond the law into other domains of cultural sense-making. And speaking to Mary Bock’s concerns in her contribution to this issue, if I see things in the video that other viewers might not see, or pay attention to things they interpret as irrelevant, I thankfully have this forum to voice my own interpretation, although I have no idea whether others will value it. On that note, I find forensic journalism both narratively and aesthetically compelling, which makes me both suspicious of it as well as curious about how it might be leveraged as a counterforensic practice (as in, for example, the short documentary piece titled, “Videos Show How Federal Officers Escalated Violence in Portland,” assembled mostly from cell phone and press video, also by the Visual Investigations team at The New York Times, posted on July 24, 2020 [Tiefenthaler et al. 2020]).

References


