

Being Heard: Listening In—Sound & Our Dystopian Present

Matt Malsky

We know of no system that functions perfectly, that is to say, without losses, flights, wear and tear, errors, accidents, opacity—a system whose return is one for one.

—Michel Serres, *The Parasite*¹

RECORD 1

Wrong

8:49 p.m., somewhere in the 20th century

Flux Capacitor

Lately I've been obsessed with a seemingly innocuous moment from Terry Gilliam's *Brazil* (1985). Well into the film Jonathan Pryce's anti-hero Sam Lowry attempts to save the woman of his dreams by sneaking into the Department of Information Retrieval to falsify her records. If she appears dead to the System, he believes they can escape together and break free of their totalizing, dystopic world. To get into the penthouse where the records are stored, he enters a secret password into the touchpad of a private elevator. Each press of a button produces a musical note, and quickly a melody. For the audience, this produces an uncomfortable moment of realization when we grasp that the tune he is performing is "Aquarela do Brasil," better known simply as "Brazil." This melody, which is such a powerful presence that it literally names the film, has been resonating obsessively throughout the film's non-diegetic soundtrack.

Slavoj Žižek has observed that the tune itself is the content of Sam's fantasy and structures his enjoyment. "Throughout the film, it seems that the idiotic, intrusive rhythm of 'Brazil' serves as a support for totalitarian enjoyment, i.e., that it condenses the fantasy frame of the 'crazy' totalitarian social order that the film depicts."² Earlier in the film when we hear Sam humming the tune from the underscoring, we understand it as the scaffolding for his fixation made audible, an *objet a*. Sam's fantasies stage his desires—sexual, social, and political, and we gain access to Sam's inner world, in part, aurally. The insistent, obsessive and invasive nature of the non-diegetic soundtrack trumps the apparently upbeat and goofy tone of the tune and its orchestration. Michel Chion would call it anempathetic.³ Sam's diegetic humming of the tune seems like auto-stimulation to keep his mind from dwelling too much on some imminent danger, as if he's whistling a happy tune in the dark. In the film's final scene when he faces death in the torture chamber at the hands of his former friend Jack Lint, Sam has completely withdrawn into his fantasy. All that remains behind is his body strapped to the chair and his humming of "Brazil." The tune encapsulates the futility of his dreams in the face of a truly repressive environment.

RECORD 2

Babbitt

The Day of Unanimity

Twenty-sixth century A.D.

In Yevgeny Zamyatin's dystopian novel *W/e*, music of the present is rational, productive and omnipresent. Manufactured in the Music Factories, it is piped into every crevice of daily life. The music of the past was "wild, spasmodic, jumbled—like their whole life back then, when they didn't have even the faintest adumbration of rational mechanics."⁴ Music of the present is composed of "[c]rystalline chromatic scales of converging and diverging infinite series—and the synoptic harmonies of the formulae of Taylor and Maclaurin, wholesome, quadrangular, and weighty as Pythagoras's pants."⁵ Music's very materials are as organized and controlled as mathematical thought: time-and-motion studies, Geissler tubes, nonnegative integer powers of the variable, and geometries. By contrast, ancient music was mere "pathetic self-indulgence."⁶ Zamyatin's music of the present is utilitarian (*Gebrauchsmusik*) and socially leveling—"any one of you can produce up to three sonatas per hour" by cranking the handle of the musicometer. The ancients needed to create music "by whipping themselves up to attacks of 'inspiration' like some unknown form of epilepsy."⁷ As Nietzsche's Athenian tragedy is born synchronically from an admixture of Dionysian music and the Apollonian text, dystopian fiction seems hatched from the inverse: cold, calculating and ruthlessly efficient sound and a narrative that progresses entropically toward chaos.

But does listening also follow this same trajectory from an inchoate past to the meaningful present? In our dystopian present can we, like D-503, hear rationally and believe in a totally administered society? Does the rationalized production and consumption of sound yield a dystopic social environment? Is this our hubris?

As D-503 notes, "how pleasant it was to listen to our music of today."⁸ Totalitarian enjoyment...

RECORD 3

Elevator music

The unseen one

22, not 21

But in the elevator the music of "Brazil" has crossed a further boundary, a yet darker one with implications for listening outside the film. While it is commonplace for diegetic music to swim out of the narrative into the underscoring (e.g. "As Time Goes By" played on piano by the character of Sam in *Casablanca* swells into orchestral underscoring to mark the start of that film's famous flashback), the opposite is less common and is often marked as a symptom of something sinister at work.⁹ Thus, Sam's humming is made uncanny by the fact that he is entranced by music from a soundtrack to which he shouldn't have access. It can't simply be a bizarre coincidence that the character is hearing the same tune as the audience. Similarly, when the secret password is aurally instantiated in Sam's reality as the tune "Brazil," it has seeped from non-diegetic space into the world of the story much in the same and disturbing way that the beautiful maiden of Sam's day-dreams has unexpectedly appeared in the person of Jill, the upstairs neighbor of the unfortunate Mr. Buttle—as a rupture, as an answer of the Real. This interpenetration of the objective diegetic soundscape by the subjective musical superego, this confusion of the Real and reality subtly implies an outside agency.¹⁰ Here is evidence of manipulation by the big Other, an unseen but inexorable organizing force. Sam lives in a world in which "subjects are spoken" as if they are ventriloquist dummies.¹¹ Through this impossible continuity of the audible, Sam's relationship with the symbolic order is marked as always already fundamentally compromised, as paranoid. Here, as in *W/e*, music symbolizes the triumph of instrumental reason.¹²

But if this suggests a totalizing impulse in *Brazil*, a world of unshakeable totalitarian order, we don't need to look far for evidence of instability at the core. Just about every quaintly antiquated visual element in *Brazil* malfunctions. The film opens with a fly that jams a printer at the Department of Records, and sets the entire narrative in motion. These machines in the office clatter, shake and are prone to mistakes. The air conditioning at Sam's apartment is broken, and the ducting is more like an unruly living organism than a purposeful series of conduits. Jill's truck barely runs, and cosmetic surgical procedures frequently go horribly wrong. Gadgets and processes meant to ease people's existence are fatally unreliable. Here is a totalitarian system under attack. As John Erikson notes, "while *Brazil* recalls throughout the world of *Nineteen Eight-Four*, unlike the Orwellian dystopia, the fallacies, inconsistencies, and ultimate fragility of the System in *Brazil* lay it open to challenge from within."¹³ Our Sam is lazy, tardy and reticent to act. But in comparison to his boss, Director Kurtzman, he is highly competent—and Kurtzman is the first among equals with workers who subvert the function of the computers by watching *Casablanca* instead of working. Information Retrieval is populated by unproductive yes-men. Unseen, unknowable terrorists might be loose, or perhaps things are just blowing up on their own. Impulses destructive to order arise everywhere to challenge the organization and efficacy of the System. Parasitic incompetence, ineptitude and outright rebellion is rampant, undermining the perfection of the System, which is unreachable and unaddressable. This is a vast, noisy machine that operates on *jouissance*.

RECORD 4

Noise

Satellites and spy-planes

Reallocate tens of millions of dollars

Futuristic modes of surveillance have been in the news in the aftermath of Osama bin Laden's death. For example, once the American intelligence community became interested in the Abbottabad compound the challenge was to listen in on the property that lacked phone lines or Internet access. Outside experts have speculated that spying methods other than wiretapping may have been used to gather information about an unseen person who was suspected to be within the compound, but who never ventured outside or even appeared at a window. Here is a description of work that might have been done by a joint NSA-CIA surveillance operation.

"I would do that by having a Special Collection Service team get an apartment a mile away and start shining laser beams on all the windows," he said. "The voice noise on the inside of the room is going to cause window glass to vibrate. A laser beam illuminates the window glass and detects the vibration."

By analyzing the vibrations, he said, analysts could tease out the number of distinct voices. "I can do voice identification to count how many people I'm listening to. If I count 22 people inside the building and 21 outside the building, I know I've got somebody who never goes outdoors."¹⁴

Osama bin Laden was betrayed by his own voice. He had become a sort of anti-acousmètre. Chion labels as acousmètre any character in cinema who derives mysterious powers from being heard and not seen.¹⁵ But here, rather than gain power as a disembodied voice as does Mabuse, bin Laden was an unseen character whose power was destroyed as his voice was torn from him. He became pathetic, ineffectual, and dead. This is a rewriting of the popular media imagination where bin Laden

was the puppet master pulling the strings of a vast terror network, the parasite actively invading, occupying and destroying the host of Western civilization. Instead, here is bin Laden the ventriloquist dummy, the subject of a totalizing force reasserted.

This shift in position is consistent with Michel Serres's observation that, in human relations the positions of sender/receiver are always in flux. In 1948, Claude Shannon, a research engineer with Ma Bell, rationalized communications by offering a model that stubbornly remains dominant in information theory and beyond. Communication is an immutable message in the form of information initiated by a source, moved through a channel with all its susceptibilities and vagaries, and is finally received at its destination. This is the world of signals, noise, probability error, coding and decoding, and channel capacity, of clear transmission functions within tolerances.¹⁶ But Serres's analyses of communication question the stability of this system. He prioritizes the concept of noise over message, noting that in French a secondary meaning of the word for "parasite" is "static or interference." Rather than the unwanted remainder, noise is the motive force that moves subjects from parasite to host.¹⁷ There is no message without resistance.

In a certain way, identity, then, is a noise...that interferes with the messages that we transmit and receive. It's hardly audible to others, but we hear it loud and clear. Yet it's not the kind of noise that bothers us; on the contrary; it gives us a sense of reality, a measure of empowerment: it adds "room-tone" to the otherwise hyper-real world around us. Some may enjoy listening to it more than others; some may tune in to it more than the others would care to. And some play it so loudly just for the fun of it or in order to make the others listen; but the others usually do not and would not listen.¹⁸

Dystopia is a noisy non-place.

RECORD 5

Murch

Case

Synchronized

Consider *The Jazz Singer* (1927) and *The Conversation* (1974), two films that stage aural surveillance (eavesdropping) in their opening sequence. In the first, young "Ragtime Jackie" Rabinowitz has snuck off to sing popular tunes in a beer hall when he should be home getting ready to sing Kol Nidre. Meanwhile, busybody Moisha Yudleson, who is nearby, inadvertently hears Jackie performing and runs off to rat him out. In the second film, a young couple meanders through San Francisco's Union Square having a private tête-a-tête. Meanwhile, they are unaware that they are the targets of an impossibly futuristic intrusion—surveillance expert Harry Caul has recorded their conversation in the midst of a crowded and noisy urban scene.

In both films the sounds overheard are illicit. Jackie's singing of popular song is strictly forbidden in his religious community, and the young couple is talking about their adulterous affair. Furthermore, in each case the specific sonic content is crucial to the narrative, and is presented as a challenge to the symbolic order. Both films begin with illicit sounds that are meant to be kept from an authority, but must inevitably be heard and addressed. *The Jazz Singer* enacts an Oedipal drama, in which urban life and popular music defeat their Old World equivalents: Jackie becomes a successful jazz singer against the explicit wishes of his father, the Cantor. In *The Conversation*, Caul acts merely as the

channel for communication. After tearing the young couple's voices away from them, his struggle to decipher the content of the recorded conversation happens twice in the film. First he must separate signal from noise—parasite from host—in a technological sense to reveal what was literally said. In a second pass Caul must struggle with the message semantically to reveal what was meant. Once doubly decoded, the message finds its way to its intended receiver, the Director (the husband), with dire (if unexpected) consequences. Both films are a working out of contested sounds intended to be transmitted to the Name-of-the-Father.

But as with Zamyatin's music, these are examples of audio surveillance past and present. The *Gemeinschaft* of *The Jazz Singer*, a community on the verge of urban modernity, has given way to the village square of our future in *The Conversation*. The difference is audio technology. The technological triumph of *The Jazz Singer* was that it marked the moment in film sound history when the conversational human voice enters the film narrative. Jack's first spoken words—"Wait a minute, wait a minute, you ain't heard nothin' yet"—were prescient, describing the increasingly determining role that sound recording would play in film production. *The Conversation* presents a dysfunctional *Gesellschaft*, which is maintained through individuals acting in their own self-interest and through technological intervention. It took forty-seven years for the audio technology to work its way from the production lot to the diegesis. Caul's wondrous black box, a device of his own invention that he uses to extract words from noise, is a musicometer. Surveillance that seemed technologically impossible in 1974 is now all too real. *The Conversation* is harbinger of sound in the age of information technology, of messages as signals and noise, disruption and delivery. Caul is a parasite whose identity is noise.

RECORD 6

Erasure

Busy signals

The Ear of Dionysus

Erasure always produces a surplus. It is *le sinthome*, "not the symptom, the coded message to be deciphered by interpretation, but the meaningless letter that immediately procures *jouis-sense*, 'enjoyment-in-meaning,' 'enjoy-meant.'"¹⁹ In *Brazil*, it's Sam Lowry's efforts to obliterate traces of Jill from the records in Information Retrieval that is the catalyst for the denouement of the film. The unexpected appearance of "Brazil" in the elevator symbolically foreshadows the consequences of this erasure. His attempt to suppress Jill's identity will ultimately lead to catastrophe. But first, the tune's return to the diegesis portends this inevitable disaster as the elevator push-button music functions here as a symbol of his fantasy gone wrong. We can see this same cause and effect enacted often with sound—and especially with sound technology. Local attempts at erasure only amplify and broaden the consequences of the message beyond any reason. Consider the cases of Nixon's Watergate tapes and the recent phone hacking scandal in Britain.

As you will undoubtedly remember, President Richard Nixon installed an automated system that recorded everything spoken in the Oval Office and other rooms in the White House. All told, there were nearly 4,000 hours of tapes made. While his presidency was ultimately felled by the infamous "smoking gun" tape, it was a recording made three days earlier that became one of "the great political mysteries in US history."²⁰ President Nixon and his chief of staff, H.R. Haldeman met on June 20, 1972, just three days after the Watergate break-in. In the tape of this conversation, tape 342, electronic hiss and clicks expunged their voices for eighteen and a half minutes. The gap was

discovered by White House staff in anticipation of turning tapes over to Judge Sirica. The disclosures on November 21, 1973 led to an Evidentiary Hearing and eventually to Nixon's resignation just before Congressional impeachment proceedings were set to begin.

Every attempt to recover this lost sound has failed. Nevertheless, attempts to explain this gap—both in fact and fiction—began immediately and have not abated. At the time, White House chief of staff Alexander M. Haig Jr. feared that “some sinister force” erased this subpoenaed tape.²¹ Admitting that White House officials feared that withheld evidence would look bad to the American public, Haig and White House legal counsel instead suggested “... perhaps some sinister force had come in and applied the other energy source and taken care of the information on that tape.” In a version of his song “Alice’s Restaurant” performed shortly after Nixon’s death in 1994, musician Arlo Guthrie recalled learning that President Carter’s son Chip had found a copy of Guthrie’s original LP in the White House library. Guthrie wondered publically whether it could just be a coincidence that both the original “Alice’s Restaurant” track and the infamous gap in the Nixon tapes were exactly the same length. He suggested that, for Nixon, resignation was preferable to admitting that he had listened to this song in the Oval Office.²² The US National Archives, which holds the Watergate files, has also tried to fill in the blanks. In 2001 it set up a panel to see if new technology *à la* Harry Caul could bring back what was said on the tape, but without success. In 2009, a former analyst at the National Security Agency noticed that Haldeman’s hand-written notes from the June 20 meeting were missing pages, and began a much publicized effort to recover the lost message on the tape. In April 2011, the BBC aired an episode of the television show *Doctor Who* in which the time-travelling Doctor tells Nixon he must record all conversations in the Oval Office to protect him from the influence of the Silence, super parasitic aliens that use post-hypnotic suggestion to control humans.²³ Hack political obscurantism has surprisingly produced creepy unidentified energy fields, bug-eyed green monsters and a hippie-Nixon, not to mention the century’s foremost crisis of faith in democracy and widespread calls for political reform. Public interest in and attention to this absence/erasure is undoubtedly greater, and of more consequence and longevity than any further felony that might have been exposed by the original conversation. This erasure, eighteen and a half minutes of noise, is a meaningless “letter,” uninterpretable in itself and, like the music of *Brazil*, permeated with idiotic enjoyment.

In the recent British phone hacking scandal, the extent of the surplus produced through erasure is still to be determined. Beginning in March 2002, journalists and investigators hired by the tabloid *News of the World* interfered with police inquiries into the disappearance of schoolgirl Milly Dowler. As agents for Rupert Murdoch’s News Corps, they intercepted—and deleted—her voicemail messages. After illegally acquiring numbers for the Dowlers’ mobile phones, the newspaper monitored voice mail messages left for Milly. Her voicemail box filled and would accept no more messages. Apparently thirsty for exclusive leads in the story, the paper intervened and deleted the messages that had been left in the first few days after her disappearance.

The consequences of these erasures are already legion and still more will likely be revealed: false hopes for the family, a failed business takeover, a newspaper closing, resignations, firings, apologies, humiliation, arrests, a death, and ongoing international legal and ethics investigations.²⁴ Tampering with Milly’s mobile messages was the first step in identifying a massive intrusion into public life by a multi-national media conglomerate in cahoots with the NSA. Reminiscent of Richard III’s lack of a horse, Murdoch’s media empire and the very face of corporate culture may be rewritten (one might hope) for lack of a larger voicemail box. In each of these cases a simple act of deception blossoms to create an effect startlingly beyond its cause. Erasure inevitably produces a surplus, and erasure’s

surplus is disaster. In these examples an erasure functions as a privileged signifier, one that fixes the signifying chain and arrests discourse. In theory, they are Lacanian *points de capiton*, anchoring or quilting points. These cases function as a rupture in the social soundscape and confirm that we, like Sam Lowry, live in a world where our phone messages and private office recordings are routinely heard by some big Listener. These are episodes that unify an ideological field and provide it with an identity: dystopia.

RECORD 7

*(I Don't Know What Goes Here,
Maybe Just:
Silence)*

Who is the big Listener?

In the United States, a partial answer lies in two complementary laws. One provides the technological means to monitor domestic electronic communications, and a second clears the way for less fettered surveillance. The purpose of the Communications Assistance for Law Enforcement Act (1995), or CALEA, is to facilitate the ability of law enforcement and intelligence agencies to conduct electronic surveillance. Under CALEA, telecommunications carriers and manufacturers of telecommunications equipment are required to modify and design their equipment, facilities, and services to ensure a “back door,” to provide a secret, built-in surveillance capacity. They must allow all telephone, broadband Internet, and voice over IP traffic to be monitored in real-time. I only became aware of this law in 2007 when my university was forced to either close its computer network (i.e. create a “private” network by requiring login credentials from each user every time they used the university computer network) or to replace its routers with devices that conformed to CALEA’s requirement for back door access. Eventually through attrition all telecommunications equipment will conform to CALEA requirements, and the distinction between public and private networks will be erased. Also, this legislation intricately weaves into the nation's telecom infrastructure a governmental surveillance system called DCSNet. Digital Collection System Network is a “comprehensive wiretap system that intercepts wire-line phones, cellular phones, SMS and push-to-talk system,” which collects, stores, indexes, and analyzes massive amounts of communications data.²⁵

Furthermore, the FISA Amendments Act of 2008, which amended the Foreign Intelligence Surveillance Act of 1978 (“FISA”), brought to a close the legislative discussions about the legal uses of this system. Under the eegis of the Patriot Act of 2001, restrictions on surveillance were greatly eased. After abuses by the Bush Justice Department were made public, this 2008 law reinstated some basic civil protections, but granted immunity to telecommunications companies complicit in surveillance, and limited legal action intended to expose abuses of power and illegal activities of the federal government. While not eliminating judicial oversight, the Act increased the time allowed for warrantless surveillance.

But it isn't just the government listening. Our voicemail, email, family photos, financial data, and private document storage are all moving to “the cloud,” spaces designed and maintained by businesses for whom this content represents massive exchange value. In 2007, Google and YouTube implemented an extraordinary algorithm that can evaluate the soundtrack of videos uploaded to the website and identify copyrighted material.²⁶ The soundtrack of each uploaded video is “heard” and

evaluated. We are susceptible to surveillance even in our cars. It is possible for OnStar, GM's in-vehicle security, communications and navigation system, to be remotely activated. This would enable third parties to track the location of the car, or to listen to any conversations within the car without their consent.²⁷

Here is a glimpse of the sonic landscape in which Sam Lowry operates. This is the aural environment in which we all find ourselves living. For every totalizing impulse there is an equal and opposite instability at the core. Lately I've been obsessed with a seemingly innocuous moment from Terry Gilliam's *Brazil*.

Our symbolic order is listening...

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Notes

¹ Michel Serres, *The Parasite*, trans. Lawrence R. Schehr (Baltimore: Johns Hopkins University Press, 1982), 12-13.

² Žižek, Slavoj, *Looking Awry: An Introduction to Jacques Lacan through Popular Culture* (Cambridge, MA: MIT Press, 1992), 87.

³ Michel Chion, *Audio-Vision: Sound on Screen* (New York: Columbia University Press, 1994), 8-9.

⁴ Yevgeny Zamyatin, *We* (New York: Penguin Books, 1993), 19.

⁵ Ibid.

⁶ Ibid.

⁷ Ibid., 18.

⁸ Ibid., 19.

⁹ For a similar use of sound in film noir, see my "Sounds of the City: Alfred Newman's 'Street Scene' and Urban Modernity," in *Lowering the Boom: Critical Studies in Film Sound*, eds. Jay Beck and Anthony Grajeda (Urbana, IL: University of Illinois Press, 2008), 103-122. A similar use of music occurs in the ballroom scene in Gilliam's *The Fisher King* (1991).

¹⁰ Film music, like "canned laughter," most commonly functions as a superegoic voice instructing us in the proper emotional response to the narrative. See Slavoj Žižek, *How To Read Lacan* (New York: W.W. Norton & Co., 2007), 22-3.

¹¹ On the Lacanian big Other, see Jacques Lacan, *The Seminar of Jacques Lacan, Book III: The Psychoses*, (London: Routledge, 1981), 48 and Slavoj Žižek, *How To Read Lacan* (New York: W.W. Norton & Co., 2007), 40-60. On film sound and the metaphor of ventriloquism, see Rick Altman, "Moving Lips: Cinema as Ventriloquism," *Yale French Studies*, No. 60, Cinema/Sound (1980): 67-79.

¹² For an analysis of the utopian potentials and the dangers of music in Adorno's philosophy, see Richard D. Leppert, "Music 'Pushed to the Edge of Existence' (Adorno, Listening, and the Question of Hope)," *Cultural Critique* 60 (Spring 2005): 92-133.

¹³ John Erickson, "The Ghost in the Machine: Gilliam's Postmodern Response in Brazil to the Orwellian Dystopia of Nineteen Eighty-Four," *Utopian Studies*, Vol. 4, No. 2 (1993): 27.

¹⁴ "Listening for bin Laden: ultrasecret NSA heard key conversation," *The Daily Hampshire*, May 12, 2011, <http://www.gazettenet.com/2011/05/12/listening-for-bin-laden-ultrasecret-nsa-heard-key-conversation>. Also see "CIA Used Satellites To Prep For Bin Laden Raid" *NPR*, May 4 2011 and "The Little-Known Agency That Helped Kill Bin Laden," *The Atlantic* May 8, 2011.

¹⁵ Michel Chion, *Audio-Vision: Sound on Screen* (New York: Columbia University Press, 1994), 8–9

¹⁶ See Claude Shannon, "A Mathematical Theory of Communication." *Bell System Technical Journal* 27 (July and October 1948): 379–423, 623–656 and Warren Weaver and Claude Elwood Shannon, *The Mathematical Theory of Communication* (Urbana: University of Illinois Press, 1963).

¹⁷ Michel Serres, *The Parasite*, trans. Lawrence R. Schehr (Baltimore: Johns Hopkins University Press, 1982), 4-5.

¹⁸ Anton Shammas, "Autocartography," in *The Geography of Identity*, ed. Patricia Yaeger (Ann Arbor, Mich., 1996), 466-475.

¹⁹ Slavoj Žižek, *Looking Awry: An Introduction to Jacques Lacan through Popular Culture*. (Cambridge, MA : MIT Press, 1992), 129

²⁰ The "smoking gun" tape was a recording made June 23, 1972, six days after the Watergate break-in in which Nixon agrees to enter into a criminal conspiracy with his staff to cover it up. Regarding the historical significance of tape 342 see David Corn, "Archives To Proceed with CSI-ish Watergate Test," *Mother Jones*, Nov. 18, 2009.

²¹ George Lardner Jr., "Haig Tells of Theories on Erasure," *The Washington Post*, December 7, 1973; Page A01.

²² *Alice's Restaurant—The Massacre Revisited* (1996) Port Washington, N.Y. : Koch/Rising Son, KOC-CD-7959; Koch/Rising Son.

²³ "Day of the Moon" is the second episode of the sixth series of the British science fiction series *Doctor Who*. Written by Steven Moffat and directed by Toby Haynes. The episode was first broadcast on April 30, 2011 on BBC One in the United Kingdom and on BBC America in the United States. The episode is the second of a two-part story, which began with "The Impossible Astronaut."

²⁴ As a result of the erased messages, friends and relatives of Milly concluded wrongly that she might still be alive. After public outcry and advertiser boycotts, the editor of the newspaper resigned, and the paper itself was shuttered after one hundred and sixty eight years in business. It was quickly revealed that other phone hacking victims included 7/7 London bombings, some relatives of British soldiers killed in action in Iraq and Afghanistan, numerous actors, sports figures and Members of Parliament. A former editor of *News of the World* who resigned in the aftermath of the royal phone hacking affair, quit his position as Prime Minister David Cameron's communications director. Rupert Murdoch announced on July 13 that News Corporation was withdrawing its proposal to take over the subscription television broadcaster British Sky Broadcasting (BSkyB), ending a corporate merger that would have changed the face of British telecom. Wireless Generation, a subsidiary of News Corporation, lost a no-bid contract with New York State to build an information system as a direct consequence of the News International phone hacking scandal. A number of senior employees and executives resigned from News International and its parent company after the emergence of the new allegations, along with high-ranking officers of the Metropolitan Police Service. From July 15 onwards, News Corp began to change its position through a series of public apologies. At his appearance before the House of Commons, Rupert Murdoch said it had been "the most humble day of my life." On July 18, former *News of the World* journalist Sean Hoare, who was

the first reporter to tell of “endemic” phone hacking at the publication for which he used to work, was found dead at his home. Unraveling like a Hitchcock thriller, the scandal has triggered multiple investigations from various governmental agencies looking at other News Corporation-owned media outlets in addition to *News of the World*, and U.S. Attorney General announced an additional investigation by the Department of Justice, looking into whether the company had violated the Foreign Corrupt Practices Act.

²⁵ Ryan Singe, “Point, Click ... Eavesdrop: How the FBI Wiretap Net Operates,” *Wired Magazine*, August 29, 2007.

²⁶ See Thomas Claburn, “Google’s YouTube Debuts Copyright Enforcement System,” *InformationWeek*, October 16, 2007, <http://www.informationweek.com/news/202403363>. Also see YouTube’s Content ID Policy for details: <http://www.youtube.com/t/contentid>.

²⁷ Though OnStar disputes this, charges continue to surface. See Declan McCullagh, “Court to FBI: No spying on in-car computers,” *CNET*, http://news.cnet.com/2100-1029_3-5109435.html. Just recently OnStar changed its privacy policy, generating renewed concerns from its subscriber base. See John R. Quain, “Changes to OnStar’s Privacy Terms Rile Some Users,” *New York Times*, September 22, 2011.