

THE BIOPOLITICAL JUSTIFICATION FOR GEOSURVEILLANCE

JEREMY W. CRAMPTON

ABSTRACT. Biopolitical use of geosurveillance can create and sustain a politics of fear. Although the majority of surveillance literature focuses on individuals, in this article I focus on groups and populations, drawing on Michel Foucault's analysis of biopolitics. After discussing the forms and history of geosurveillance I argue that three particularly important factors contribute to these politics: divisions, geospatial technologies, and the risk-based society. In order to combat the negative unintended consequences of these factors I suggest that more attention be paid to the mutual relationships between geospatial technology and politics, rather than on assessments of the value of individual surveillant technologies. *Keywords:* biopolitics, fear, geosurveillance, 9/11.

(09–11–06) 12:01 PDT SAN FRANCISCO—A United Airlines flight that was diverted to Dallas this morning after an unclaimed electronic device was discovered onboard has landed at San Francisco International Airport, an airport spokesman said.

The flight crew on United flight 351 from Atlanta to San Francisco elected to stop in Dallas around 7 a.m., said SFO spokesman Mike McCarron, after finding a backpack on board that no one claimed. The unattended backpack contained a PDA device, McCarron said, "like a Blackberry."

Authorities searched the plane in Dallas and found nothing unusual, he said.

—Marisa Lagos, 2006

There was a time, perhaps not too long ago, when finding a BlackBerry would have meant "finders keepers, losers weepers." Now however, it is grounds for emergency action by the state.

The diversion of United Airlines flight 351 to Dallas, Texas, on the fifth anniversary of the 9/11 terrorist attacks is by no means a unique event. United Airlines flight 919 was diverted in 2004 when Yusuf Islam, the pop singer formerly known as "Cat Stevens," was found to be on board. The U.S. government refused to disclose what connection, if any, he had with terrorism, and he was returned without charge. In May 2005 Alitalia flight 618 was similarly diverted to Bangor, Maine, after a passenger's name was found to match one on the no-fly list. After being briefly detained, the passenger continued his flight, again without charge. (In October 2006, the CBS television show *60 Minutes* revealed that the no-fly list was riddled with errors [Kroft 2006].) Over the 2005 New Year, the media suddenly became concerned about terrorists shining laser beams into pilots' eyes in order to make planes crash—a story that then faded away. A number of women have reportedly been forced to drink their own breast milk to demonstrate its safety even if it was in the allowable 3-ounce bottles, and in both August and September 2006 flights were diverted be-

✦ DR. CRAMPTON is an associate professor of geography at Georgia State University, Atlanta, Georgia 30303.

cause the cabin crew found bottles of water on the plane (King 2006; Smith 2006; WSOCTV.COM 2006; Bernhard 2007).

FEAR OF A BLACKBERRY PLANET

In this article I discuss the political circumstances that provide space for surveillance of these and other geographical activities, especially travel and the occupation of certain spaces by "problematized" and "risky" populations. I draw on recent literature on both surveillance and Foucauldian biopolitics (roughly, the politics of population) to examine how the politics of fear provides a "rationale" for the use of geosurveillance in dealing with these populations (Robin 2004; Siegel 2005). I argue that populations and groups are the target of a risk-based society that no longer requires knowledge of the specific individual but rather of the biopolitical trends of problematic populations. Activation of the politics of fear in turn necessitates extensive and ongoing geosurveillance.

Fear is receiving increased attention in the geographical literature, notably in the role that geospatial information technologies such as mapping and GIS may play in understanding it (Pain and others 2006; Kwan 2007). Lacking is any literature on the question of whether geospatial technology plays a role in assisting or even promoting societal fear, especially from a political perspective; for example, GIS and the politics of fear.

In assessing this role we should be careful not to assert that geospatial technologies are essentially negative. Rather, they constitute a complex web of power-knowledge relations in which "power" does not mean "domination." The differing nature of these political relations provides space for many different kinds of uses of the technology. Indeed, the heterogeneous and multiplicitous possibilities of geographic information technologies give credence to recent efforts to "reconstruct" it or to explore counter-mappings (Schuurman and Kwan 2004; Harris and Hazen 2006). If, as Otto von Bismarck said, "politics is the art of the possible," this does not mean that politics is limited to what is currently possible; rather, it means that politics can provide for completely new possibilities and new forms of expression. These possibilities are reflected in critical GIS and cartography projects, which neither accept technological determinism nor claim that technology is neutral. Instead, they try to steer a pathway between these two positions, by seeing geospatial technology and forms of government as "coconstructed" and as situated practices (Lyon 2003, 178). Technology and society shape each other in particular power-knowledge contexts.

A complete political analysis of this mutual coconstruction is too large a project for this article. Instead I limit my discussion to that form of political rationality that calls forth a surveillant use of technology in the observation and control of spaces and populations; namely, the biopolitical justification of geosurveillance.

FORMS AND HISTORY OF GEOSURVEILLANCE

Geosurveillance can be defined as "the surveillance of geographical activities." Because the latter includes a wide range of activities, including not only migration,

travel, and movement but also the distribution of people and things in territories or spaces, the range of geosurveillance techniques is also potentially wide. Two categories can be identified, however. Many accounts focus on the individual. Such geosurveillance includes tracking devices like radio-frequency identification tags (RFIDs) in passports, cell-phone geolocation, closed-circuit television (CCTV), avian influenza cases, organ donors, and the monitoring of criminals. The second category of geosurveillance focuses on monitoring groups and populations as a whole. Here a population is not just a sum of individuals; it is an object of inquiry in itself. It has regularities, such as birth, death, and reproduction rates. Putting these two categories in Foucauldian terms, "discipline" describes power at the level of the body, whereas "biopolitics" describes power at the level of the population (Foucault 1981). Although individual tracking is important and newsworthy, biopolitical population geosurveillance is far more extensive in today's risk-based society.

This risk-based society emerged hand in hand with new forms of juridical governance. Prior to the legal reforms of the eighteenth and early nineteenth centuries, the law focused on the nature of the crime committed, the evidence of guilt or innocence, and the system of penalties that would be applied—in other words, on crime and punishment. The person of the criminal was important only insofar as he or she was the individual to whom the crime would be attributed. With the reforms this hierarchy was reversed: The crime was merely an indicator of something more significant, the "dangerous individual" (Foucault [1978] 2000). The law was now interested in the potential danger of the individual: "The idea of *dangerousness* meant that the individual must be considered by society at the level of his potentialities, and not at the level of his actions; not at the level of the actual violations of an actual law, but *at the level of the behavioral potentialities they represented*" (Foucault [1973] 2000, 57; italics in the original). Thus punitive responses had to be tailored to the perceived threat of the individual.

The question is not one of identifying which areas are at risk but of seeing everything at risk, to different degrees, as measured against a background of what is normal. Geosurveillance must be coextensive with that risk; that is, everywhere. Blanket geosurveillance is therefore a logical outcome of the state's representation of its residents as risk factors who need to be controlled, modified, and logged. When we see an instance of surveillance, whether it be by the government or in consumption, such as biometric identification cards and the millions of CCTVs in the United Kingdom (Rosen 2001), cell-phone tracking, RFIDs, biological chipping, warrantless tapping of telephone calls, the Federal Bureau of Investigation's DNA database (FBI 2001), we should see it in the context of surveillance-risk normalization.

In this light it is possible to see that today's most important geosurveillance resources are biopolitical technologies that include not only the well-known border fences and motion detectors but a new generation of mapping technologies (on border biopolitics, see Amoore 2006; Salter 2006). The kind of security desired by the United States and other countries depends on a whole suite of digital spatial

mapping and so-called locative technologies. These locative technologies allow people and objects to be geosurveilled; that is, to be tracked, marked, noticed, and logged as they move from one place to another. It comprises RFID chips, location-based services, cell phones, GPS, and many other locative technologies. In effect, then, this adds a new dimension to surveillance. Whereas telephone taps can reveal what was said, geosurveillance can reveal where it was said and where it was done, what was nearby, and whether that constituted any risk.

Surveillance is not new. For example, the Bible describes a census (in the Book of Numbers). A famous example of surveillance is the ideal prison known as the "Panopticon" (all seeing), which was proposed by the social reformer Jeremy Bentham in the late eighteenth century (Bentham 1995). Although many people assert that Bentham's plans were never realized in practice (Monmonier 2002), in fact some 300 prisons around the world were built on panoptic attributes. In Bentham's ideal prison, the wings of the cell blocks were arranged as spokes from a central hub. The guards, located in the hub, could observe—directly or using mirrors—all the cell blocks without moving. Furthermore, the guards were hidden from the prisoners' view, so they could observe without being observed. This aspect has had a very strong metaphorical grip on the idea of surveillance.

Bentham's ideas were introduced to a fresh audience in Michel Foucault's work on the history of the prison [1975] 1977). Foucault discussed the Eastern State Penitentiary, on Fairmount Avenue in Philadelphia, which has some panoptic features (although its primary goal, derived from liberal Quaker principles, was prisoner isolation in order to achieve "penitence") (Figure 1). Still extant, the prison was constructed in 1829 and operated until as recently as 1971 (Teeters and Shearer 1957; Johnston 1994).

In this view, geosurveillance is part of a larger scheme of state surveillance. Norms are almost inevitably understood in a calculative, statistical manner. Foucault pointed to the emergence of demography and "the evaluation of the relationship between resources and inhabitants, the constructing of tables analyzing wealth and its circulation" ([1976] 1978, 140). Demographers, geographers, and cartographers began to observe and quantitatively investigate birth and death rates, hygiene and the need "to medicalize the population," accidents and various anomalies that might need to be addressed through such things as "insurance, individual and collective savings, safety measures," and the establishment of actuary tables and life expectancies (Foucault [1997] 2003, 244).

Extensive and systematic surveillance is characteristic of modern societies—the word itself dates only from the very late eighteenth century. As David Lyon discussed, pre-Foucauldian explanations of surveillance drew on economic and bureaucratic factors (1994). In Marxism, surveillance was established with the advent of modern capitalism because it was a necessary part of managing people at work; "hence what we now know as 'management' was developed to monitor workers and to ensure their compliance as a disciplined force" (p. 25). Max Weber extended the necessity of surveillance: For him, "surveillance is bound up with bureaucracy. . . .



FIG. 1—One of the spokes in the Eastern State Penitentiary in Philadelphia, which was in use from 1829 until 1971. (Photograph by the author, September 2006)

Modern organizations are characterized above all by their *rationality*” (p. 25 [italics in the original]).

Lyon argues that systematic surveillance emerged with “the growth of military organization, industrial towns and cities, government administration, and the capitalistic business enterprise. . . . It was, and is, a means of power” (1994, 24). Geosurveillance, like other forms of surveillance, is a form of knowledge—of knowing how much, where, and by whom—that is tied to forms of power.

In order to assess the distribution of resources, including how educated the populace was and other human resources, the state needed new forms of knowledge, such as statistics, a term etymologically derived in the late eighteenth century from the German *Statistik* (state-istics) (Shaw and Miles 1979; OED 1989; Hacking 1990). Cartography was also required; as histories of thematic mapping show, the initial inventions of map types such as the choropleth map were strictly for purposes of government and state bureaucracy and, indeed, were invented not by cartographers or geographers but by political scientists (Robinson 1967, 1982; Konvitz 1987; Jacob [1992] 2006; Friendly forthcoming).

Dangerousness is a measure of the degree of risk or threat posed. What Foucault suggested, therefore, is that the issue is framed as one of risk and threat. One may see this as being a risk or as being at risk. How can risk be assessed and com-

pared from one place to another? Are some things more at risk than others? In order to answer these questions it was necessary to develop statistics and statistical thematic mapping at the beginning of the nineteenth century. It is not a coincidence that statistics and risk emerged hand in hand.

Foucault expanded the economic theories of surveillance to include a more explicit political vein. For example, immigrants have often been the target of surveillance, not necessarily because of their economic potential but because they represented a threat. In the early twentieth century immigrants were subjected to a series of race-based quotas in U.S. immigration laws (Crampton 2007). Because the quotas were derived from the census, what was at stake was clearly not just a collection of data on the population but a political technology of population management (Hannah 2000). This is a major difference between Foucault's work on surveillance and that of Karl Marx and Max Weber. For Foucault, surveillance is not about class relations or bureaucracy but about the biopolitics of the "essentially aleatory events that occur within a population" ([1997] 2003, 246). Here "aleatory" means not only that people were essentially free—that what a person did was a matter of chance—but also that contingent regularities could be modeled by a theory of probability. Given birthrates in an area, one could predict whether a new school would be needed, although not whether any specific couple would have children. One could now talk about "group norms" and "deviations" from these norms. As we shall see below, these norms were used in constructing a series of dividing practices.

During World War I, new forms of mass—population-level—surveillance were introduced, many of which had a geosurveillance component. In order to assess their suitability for a large-scale war, new recruits were subjected to batteries of tests and measurements. Information was also recorded on other types of people, such as war objectors and suspicious persons. Citizens were issued identity cards, state-issued photographic identification, and "securitized" passports. Interception and decryption of messages and transmissions were developed (and extended in World War II).

In recent years the increase of surveillance, particularly electronic surveillance, has given rise to the label "the surveillance society" to capture the idea that surveillance has become institutionalized (Pickles 1991; Lyon 1994). As the computer age has progressed, more attention has been paid to digital or electronic surveillance, and many people now accept being under surveillance as a natural state of affairs. According to a recent poll, one in five Americans (about 24 million households) think the government may have listened to their telephone calls (CNN 2006); a number far above the probable reality but reflective of the politics of fear that operates in the United States.

THE BIOPOLITICS OF FEAR

How and why do a climate of fear and, more specifically, a biopolitics of fear operate? Drawing on the work of Foucault, I argue that it requires at least three critical practices: divisions, geosurveillance technologies, and the risk-based society.

DIVISIONS

The first step in activating a politics of fear is to create and constantly reproduce a whole array of divisions between "us" and "them"; for example, normals versus abnormals, insiders versus outsiders. Those who promote these divisions, whether governments or local actors, wish to establish certain kinds of power-knowledge relations with the "others" in question. Foucault called these "dividing practices": "The subject is either divided inside himself or divided from others. This process objectivizes him. Examples are the mad and the sane, the sick and the healthy, the criminals and the 'good boys'" (Foucault 1983, 208).

The question of how people are "made up" and divided into certain kinds of subjects was the focus of Foucault's work after the mid-1970s and was known as "governmentality." This approach has excited many writers due to its applicability to a wide range of critical analyses: biometrics and security, criminal justice, sociology, politics, and recently, geography. As Matthew Hannah observes, this biopolitics of subjectivity reveals how spatial partitions such as borders and territories serve to regulate and govern populations in "mappable landscapes of expectation" (2006, 629), a concept extended and developed in a series of related works on governing populations (see Philo 2001; Foucault [2004] 2007a; Gledhill 2005; Legg 2005; Alatout 2006; Amooore 2006; Sparke 2006). Biopolitics is an insightful and useful perspective because it foregrounds the geography of risk produced by where we expect the "bad boys" to be, based on their behavioral profiles. In addition, it connects to the longer history, discussed above, of group surveillance with the institution of the great national censuses and to the increasing concern over immigration.

Dividing practices in a normalizing society are based on notions of the norm that were developed in the fields of medicine and statistics (Foucault [1997] 2003, [1999] 2003). In the latter field, starting in the nineteenth century we find a very strong emphasis on various aspects of life: birth and death rates, age of marriage, use of birth control, longevity, fertility, public health, and suicide. This emphasis brought together the new field of public health into conjunction with town planning and architecture to address the increasing urbanization of the nineteenth century in a field of enquiry known as "moral statistics." As Michael Friendly argues, moral statistics can be seen as the precursor to the modern social sciences (forthcoming). Indeed, Friendly further suggests that Andre-Michel Guerry's innovative cartographic analysis of French social statistics in the 1820s and 1830s paved the way for later work in cartography and its application to political questions of populations and space (Crampton 2004).

For example, these concerns translated into concrete proposals for town planning. Towns and cities had to cope with movements of people—circulation—due not only to trade into and out of the city but also, because cities were no longer walled, to the threat of vagrants and thieves coming in from the country: "It was a matter of organizing circulation, eliminating its dangerous elements, making a division between good and bad circulation, and maximizing the good circulation by diminishing the bad" (Foucault [2004] 2007b, 18). Given that the negative aspects—

crime, disease, infertility, poor education, and so on—cannot be totally controlled or eliminated, it is a matter of minimizing their likelihood, their probability. This would be achieved not only through observation—surveillance—of all elements in a place, both good and bad, but also through counting and statistical assessment. The quantities of both good and bad need to be known, as do whether good or bad is increasing relative to the other, and the probability of something happening and how that probability can be reduced to a more normal, regular level.

It is therefore not incidental that, in the early nineteenth century, the major forms of mapping concentrated on showing exactly these factors: where pockets of disease might lie and where trade went. An innovative series of proportional flow maps were created by Joseph Minard showing wine exports from France (see Robinson 1967; Friendly 2002; Wainer 2003), areas of low education or high crime, and so on (Robinson 1982). The famous case of John Snow, the father of epidemiology—biosurveillance—who, if he did not use the map to discover the source of cholera in London, certainly used its rhetorical powers, is another case in point (Johnson 2006). Many of these data were derived from censuses—much improved and professionalized in the United States during the second half of the nineteenth century (Hannah 2000; Crampton 2004). It is a remarkable fact that most of the map types used in today's GIS were invented in the nineteenth century to map these data.

These landscapes are based on knowing where the populace exists and to what degree it is "risky" (posing a risk, or at risk). Whereas, previously, nation-states were ruled by kings or sovereigns who exercised an absolute power and who did not necessarily need to know about the populace in order to govern, modern societies are governed differently—they are biopolitical. Knowledge is acquired about groups and populations as well as about the territories in which they reside. Modern societies—from the late eighteenth or early nineteenth century—saw their responsibilities in terms of a liberal rationality: management, guidance, *laissez-faire* economics, norms, risk analysis, and calculation (Crampton and Elden 2006).

GEOSURVEILLANT TECHNOLOGIES

In order for these divisions to work, a variety of technologies of surveillance, spatial tracking systems, and geosurveillance must be deployed. The purpose of these technologies is to collect, sort, manage, and display spatial information about the identified groups, often with a view to managing or overseeing their geographical distribution or movement. The technologies run the gamut from long-standing data-collection efforts such as the census, to newer efforts such as the admitted use of warrantless wiretaps by the administration of President George W. Bush, to mechanisms of movement control—border security, for example—and the cartographies of these landscapes. Although tracking of individuals is newsworthy and makes a strong impression, the surveillance of groups is both more important and more prevalent in modern social orders. In today's society, every individual is a member of one group or another, even individuals about whom little or no information exists (Hannah forthcoming), so the need for an equally coextensive geosurveillance is pressing.

A wide variety of geosurveillance technologies are in use today. Although it is difficult to say definitively, U.S. society may be the most-watched society in history. Many of these technologies have seen increased deployment in the pursuit of security since 9/11 and the passage of laws such as the USA PATRIOT Act of 2001 (P.L. 107-56, [<http://fl1.findlaw.com/news.findlaw.com/cnn/docs/terrorism/hr3162.pdf>]). Although many citizens of the United States, Canada, and other countries have generally been willing to accept the need for surveillant measures abroad or of foreigners in return for security—a bargain that is itself doubtful—they have generally drawn the line at domestic surveillance. Over the past few years, however, it has gradually become clear that drawing a sharp line between foreign and domestic surveillance is not easy. Moreover, in the United States the political control of all three branches of government from 1994 until the 2007 midterm elections by a single political party (with one short exception in 2001–2002) meant that the traditional oversight role of the U.S. Congress was highly attenuated. These points have been exaggerated by the Bush administrations's adoption of a radical political agenda known as the "unitary Executive" in which the president is free from checks and balances (Greenwald 2006). The political space provided by 9/11, a complaisant Congress, and a society of fear has been occupied by an array of domestic geosurveillance.

Perhaps the most controversial example is provided by warrantless wiretaps. Under U.S. law, wiretaps of telephone and other communications require a court-ordered warrant. The warrant is issued by a judge who thus provides oversight of the surveillance, accountability of those seeking the wiretap, and a guarantee that the process is not being abused. The surveillance is secret—neither the knowledge nor permission of those subject to wiretap is required. However, probable cause is required (as enumerated in the Fourth Amendment of the Constitution). In December 2005, after sitting on the story for a year at the request of the administration, the *New York Times* revealed the fact that the Bush administration had authorized the National Security Agency to place wiretaps without warrants (Risen and Lichtblau 2005). This secret and allegedly illegal surveillance program had been occurring for some three years.

THE RISK-BASED SOCIETY

Once data have been collected through surveillance, they have to be rationally assessed. Today this is carried out through the model of risk (Beck 1992). The model comprises several elements. First the divisions previously established are used to sort data into categories. Second, each category has an associated degree of risk. Third, all members of that group are assumed to pose the same degree of risk. If you belong to a high-risk group then you are also a high risk, whatever your individual qualities may be (Foucault [1978] 2000). This helps us understand why, for example, Yusuf Islam can be deported—the reason was not anything specific about him as an individual but his position in a profile deemed high risk. Using risk—or its cognates, threat and security—shifts the judicial process from one of prosecuting offenders after the crime (a question of individuals) to anticipating and preempting

actions by those within high-risk groups (a question of populations). Shifting from individuals to populations, it is argued, makes it easier and more efficient for law enforcement to identify wrongdoers.

Adopting a risk-based approach for human affairs is undesirable for several reasons. First, the shift from prosecuting offenders to profiling may result in wrongly identifying individuals based on their group membership, known technically as a "false positive," a false indication of a positive finding. It arises when average group-level characteristics are used to derive information about an individual. A common example occurs in the context of automobile insurance. Many insurance companies ask you for the zip code if the area in which the vehicle is owned. Using accident data for this zip code they then assess the premium for that vehicle. Two people with clean driving records will pay different premiums based on where they live, not on their personal records, although some companies do make small reductions in premiums for clean records. This philosophy of imputing individual characteristics based on group membership lies at the heart of profiling, stereotyping, and racism and has therefore often been rejected (for example, "random" car stops by the police).

In some contexts these false positives are acceptable, but when human subjects are involved a false hit can be devastating. It can lead to arrest, detention, or deportation. Where base rates of the activity are low, as is presumably the case with terrorism in the West, false hits can far outnumber real hits. Because it is not determinable *prima facie* whether a hit is truly or falsely positive, all such hits must be investigated, draining resources. Not surprisingly, therefore, most terrorist-related arrests do not lead to prosecutions. In the United Kingdom fewer than 4 percent of the people arrested under antiterrorism laws have been convicted of terrorism (Morris 2007).

Notice also that, in order to make these risk assessments, extensive group-level information (the zip code in the example above) must be collected. Although the state would appear to gain from the efficiencies of profiling, its citizens pay the price of more extensive surveillance. For example, in 2005 the United Kingdom announced that it would be the first nation to track every automobile journey (Connor 2005). Automatic cameras would record license plates 35 million times each day, capturing time, date, and location with GPS. In these data-mining situations it is not only ironic but also significant that the vast majority of the data must of necessity pertain to innocent citizens.

A third problem with risk-based analyses is that our evaluations of risk are extremely poor. When we are faced with making a judgment in a situation with probabilities rather than certainties, which is the case with risk, most of these judgments demonstrate consistent biases or errors. Yet most people believe that their judgments are accurate and superior to those of other people. In one 2000 study, for example, in the context of the estate or death tax, which would actually benefit only the top 1 percent of earners, fully 39 percent of respondents thought that they would be benefited. These findings are well known and were first extensively demonstrated

in the early 1970s, most famously by Amos Tversky and Daniel Kahneman (Tversky and Kahneman 1974; Kahneman, Slovic, and Tversky 1982).

These errors in judgments are affected by the political context in which they are made and, in turn, lead to political decisions. Recent work on risk assessment, for example, has uncovered so-called dread risks, or low-probability, high-consequence risks (Gigerenzer 2004). A dread risk is often incorrectly expected in a climate of fear and can seem reasonable, but it will usually lead to disastrous consequences. Following the 9/11 airplane attacks on the Twin Towers, for instance, many people feared another airborne attack and elected to drive to their destinations. But because driving is so much more dangerous than flying, the surge in driving is estimated to have led to the death of an additional 1,500 people in automobile accidents the following year (Gigerenzer 2006).

Another example is provided by Vice President Dick Cheney's "One Percent Doctrine," stated shortly after 9/11. Referring to Iraq, Cheney said that, if there is "just a one percent chance of the unimaginable coming due, act as if it is a certainty" (Suskind 2006). But in high-consequence situations we need more certainty before acting, not less. In science, for instance, findings are not usually deemed significant until they are 95 percent, not 1 percent, certain, and even then the risk of error is one in twenty. Any surgeon who performed a mastectomy because he or she had concluded that the risk of breast cancer was 1 percent would quickly lose his or her license to practice medicine. Cheney's misunderstanding of risk was part of the political discourse that served to pave the way for the U.S. invasion and occupation of Iraq. Such risk-based analyses are a dangerous form of calculative politics, one that helps sustain a politics of fear (Crampton and Elden 2006).

BEYOND GEOSURVEILLANCE

Is there then any way forward from the negative consequences of division, surveillance, and risk? I would argue that there is. First, we need to stop seeing the issue as one of security and surveillance versus privacy or rights. Arguing about this or that surveillance technique misses the point that, both historically and today, surveillance is a core component of the modern state; that is, surveillance and geosurveillance are characteristic of certain types of political rule based on a politics of fear (Foucault [1975] 1977; Lyon 1994; Graham and Wood 2003). Until we recognize the deep-seated basis for surveillance in the politics of fear, our analyses risk being politically irrelevant. A counterargument based on the right of privacy has not prevailed, and perhaps cannot prevail, against a politics of fear. Surveys consistently show that, if the issue is framed as security versus privacy, people will sacrifice the latter. This is a false choice, however, because one buys security not at the cost of privacy but at the cost of a climate of fear.

We should also critically examine and in some cases curtail risk-based analysis in the context of human subjects. Risk-based analyses may be acceptable in the domain of natural systems, but in the human domain they lead to false positives and blanket surveillance. Here the GIS industry needs to reassess its ongoing in-

volvement and promotion of risk-based data-mining efforts in the name of homeland security. And in all such analyses the limitations of such research should be made abundantly clear. Although the GIS industry may believe that it has little to do with the political climate of fear, by deploying risk-based approaches it is in fact creating and sustaining such a climate.

Finally, if one form of surveillance can be said to be less desirable than another, we should be careful about blanket surveillance of populations. If such surveillance is desired—by, say, the U.S. Census Bureau—then, like other research, it should be conducted with informed consent and low-penalty opt-out provisions. Certainly we should be aware of the negative consequences of biopolitical profiling when it stigmatizes entire populations and groups—as in the recent case of a radio personality who called for “all Muslims to wear GPS tracking bracelets” (Colorado Media Matters 2007).

By outlining the issue in this way, I differ significantly from efforts that seek to distinguish “acceptable” from “unacceptable” uses of surveillance. Those extremely subjective terms are likely to attract little agreement. Yet we can agree that certain uses of technology stigmatize, that they produce harmful false positives, and that surveillance is an issue of power.

Unfortunately, we are far from framing the issue in these terms. Geospatial debates about surveillance are usually framed around the assertion of technological “neutrality.” For example, the prestigious U.S. National Research Council suggests that GIS is “neutral in and of itself” and warns that “the country needs GIScience professionals who have a sufficient background in the policy and social sciences to be sensitive to the full array of positive and negative applications their new technologies provide” (NRC 2006, 47). In this view, technology exists prior to society and prior to its use, sitting as if on a shelf waiting to be deployed. This view is dangerous and must be countered, for it is politically emasculating. Looking at each individual technology of geosurveillance and balancing its goods and negatives diverts attention from the fact that surveillance is integral to our modern society. Failure to approach these issues at the level of politics and the activation of the politics of fear is defeatist.

A different approach is to recognize that technology and geosurveillance are always situated within sets of power relations and, more specifically, to approach them as knowledges or rationalities of government. This approach is not new, but it has yet to become common in the subdisciplines of geography that often involve geosurveillance such as GIS, cartography, and remote sensing. Indeed, if the National Research Council’s Committee on Beyond Mapping (chaired by the geographer Joel Morrison and including a significant number of other senior geographers) has its way, this approach will never prosper. Nevertheless, writers such as Denis Wood (1993) John Pickles (1995, 2004), and Brian Harley (2001) have taken this more political approach in mapping (for overviews see Perkins 2004; Crampton and Krygier 2006). Not only is this approach more realistic and therefore more likely to yield explanatory causes, but it gives us an overall perspective from which to assess geosurveillance and to explore alternatives.

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