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Surveillance and Surveys: the Soft Interview of the Future

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Social Science and Public Policy

Surveillance and Surveys: The Soft Interview of the Future

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I've got my eyes on you ...Incidentally, I've set my

spies on you.

Cole Porter

In my book *Windows Into the Soul: Surveillance and Society in an Age of High Technology* I analyze many of the social, political, ethical and cultural issues raised by the new surveillance. The book uses a variety of traditional methods such as observation, interviews, document analysis and quantitative measures to document surveillance behaviors such as video, drones, DNA, drug testing and computer monitoring.

The facts generated by such methods, when located within a conceptual framework, can help us understand structures and processes of surveillance. But in general they are of less use in understanding the culture that surrounds surveillance, in particular the justifications and counters offered by agents and subjects and the feelings associated with watching and being watched.

Surveillance is not only applied, it is also experienced. To better grasp that experience we

need stories as offered in song lyrics, images and imagined, but realistic, case studies that are (as the movies say) "inspired by real events". These components of the culture of surveillance infuse our minds and everyday life. They speak to (and may be intended to create or manipulate) needs, aspirations and fears.

The book identifies a number of social processes associated with contemporary surveillance. These include its diffusion via creeping or galloping, monetarization, commoditization, the blurring of public-private organizational borders, globalization, normalization, neutralization and counter-neutralization and the myth and mystification of surveillance.

I give particular emphasis to a social process involving the *softening of surveillance* as it becomes less visible and less directly coercive. In this process the environment is structured such that surveillance is unseen, being hard engineered in. In another form it is soft engineered in, being hidden, disguised, and/or deceptive, manipulative and persuasive. People may believe they have made an informed choice, whether for material rewards such as with frequent shoppers or for security. Because it is of low visibility and/or not experienced or defined as intrusive or invasive, resistance is less likely.

The fictional report that follows uses satire to illustrate the *softening of surveillance* as it is, or might be, applied sometime in the future by social researchers with the loftiest of communal motives and the clearest of consciences. This is one of a series of fictional accounts I use to illustrate how *surveillance is neither good nor bad, but context and comportment make it so.* Other fictional case studies in the book involve surveillance used by an employer ("The Omniscient Organization"; a parent's a social movement ((PISHI.org) advocating maximum surveillance of children); a voyeur (Tom I. Voire), and a leader in government security (Rocky

Bottoms). Each satire raises distinct issues (broadly speaking, work is about contracts, parenting is about care, and government relies on coercion). Yet they all cross borders that protect personal information.

Social scientists are quick to note abuses of power through technology when this involves various elites, or at least dominants such as managers, merchants, police, teachers and doctors, but slower to recognize that the informational bounties seemingly offered by new social research tools can be accompanied by troubling ethical and social issues. Beyond serving as an example of soft surveillance, the "report" which follows is intended to encourage reflection about the role of social scientists in surveillance –not in their role as muckrakers, but as potential mis-users.

The Soft Interview of the Future: New Wine New Bottles?*

Paul F. Lasers-field, Ph.D., the Bureau

*A paper presented to the annual Conference On New E-Methods (CONEM), Ann Arbor, 2016. This report is inspired by a conference on new methods of survey research treated in Conrad and Schrober (2008).

In this paper I report on an exciting exploratory project we have just completed. This large, interdisciplinary National Séance Foundation (NSF) effort involved a collaborative effort between police and national security investigators, social scientists and industry. The result is a prototype for acquiring data in those difficult situations where the subject/suspect is uncooperative or unaware of the information needed or where the direct approach seems unseemly or potentially biasing. This project is another of the fruits from the tree so presciently planted by the Social Science Research Council

half a century ago in its call for the creation of improved federal means for generating and using personal data.

This project grew out of my own prior work on improving methods of data collection in contexts of minimal or no cooperation, where an agent has reason to suspect at least some dishonesty, regardless of whether subjects are survey respondents or interrogated suspects. We are also very interested in applying tools to elicit information of which the subject is unaware. As we now know, only a tiny fraction of brain activity is conscious, and even cooperative subjects can't decipher their own brain's electrical frequencies.

Whether the researcher comes up empty because people don't know what we need to find out, or because they are uncooperative, it's all the same. We have made great progress in developing tools to overcome these limitations. Our project uses the tools to identify, in the hope of preventing, problems related to (1) drug use (2) political extremism (3) crime and (4) inappropriate sexual behavior. It also aims to help consumers get the information they need and want and to give something back to our generous private sector sponsors.

Given the sensitive nature of the topics we need to know about and the difficulty of obtaining adequate and valid data on them, the researchers developed unobtrusive methods based on the pioneering work of Webb (1966). These sought to minimize, or even hide, the role of the human agent. Such methods can enhance the face-to-face interview by probing beneath the deceptive veneer of the seemingly "authentic intentionality" found when one must rely exclusively on the subject's words. The methodology draws from recent communications research on the ease of conversational

deception and on the limits of any survey that gives the respondent space for impression management.

With our approach, then, a mostly noninvasive multimodal approach (NIMMA) exploiting all channels of communication is used. This includes the methods such as PEP, fMRI, EEG, EKG, BPMS, and Wmatrix (Person et al 2008) and some additional means still under beta test such as ZOWIE, WAMIE, and BMOC ©. Validity and completeness of response were greatly enhanced by access to unobtrusive measures and comparisons to data from beyond the interview situation. New meaning is found through creating a mosaic of previously meaningless, unseen, unconnected, and unused data. In short, the scientist who relies entirely on words is a rather unscientific, profligate, one-trick *ancien* pony who needs to get with the program.

How does our method work? The interview and related detection occur in an ambient-intelligence, pastel living room matched to the social and psychological characteristics of the subject (i.e., age, education, gender, lifestyle). Specifics of room conditions are inspired by the clustering of respondents into types pioneered by marketing research. One size hardly fits all. The rooms can be internally rearranged to accommodate 68 distinct types of respondent. Respondent characteristics are determined by a preliminary research encounter, including an electronically measured handwriting sample, a Google search, a search of commercially available public records, and under carefully controlled conditions, a search of restricted databases regarding sensitive behavior.

Subjects are videotaped as they approach our office and researchers (aka surveillance agents) draw inferences from various aspects of their gait, posture and

dress. The elevator records the subject's image and any words. Over soft music and a subliminal voice repeats "be truthful and cooperative".

Once settled in the study room, the subject is told that in order to accurately capture his/her experiences and opinions, a variety of "state of the art" technologies are being used. However, the subject is not told that the chair seat measures the smallest moves, body temperature, and electro dermal response, or that facial expression, eye patterns, voice micro tremors and language usage are recorded and that the calming scent of pine is delivered through the air duct system. Nor is there notice that the timing of responses and word-use patterns (whether oral or written) are analyzed for evidence of lying and psychological characteristics. Here we borrow from the tools of forensic analysis of e-mails used so creatively to establish lying in the Enron case. (Hancock 2008) Given the potential for subject untruthfulness and the biasing effects of direct interviewer questions, passive means are highly recommended.

Some inferences, too, are made about the respondent based on answers to questions unrelated to the topics of direct interest (indirect personality assessments to determine latent racism and sexism). The internal consistency of responses is analyzed, and answers are compared to data found through cross checking a variety of databases.

We originally planned to covertly read brain wave emission, but the Human Suspects Review Committee rejected this idea out of fear of harming subjects and garnering bad publicity. While we believe research will soon show that if used remotely "the MRI doesn't lie", the evidence to back this up is not yet here and there are still some health concerns about this technology. The goal of our research is to help people

not to hurt them. . We believe that the brain doesn't lie even if it whispers too softly for now.

The room is slightly warmer than most rooms. Subjects are provided with a full complement of free beverages and encouraged to use the adjacent restrooms during or at the conclusion of the two-hour interview, which they have private access to with a unique ID number. The softly lit toilet environment provides a heated seat and soft music to relax the sphincter muscles. Subjects are not told that a variety of automated biochemical urine and olfactory assays are performed on their voluntary offerings. The method is guided by the principle that "what doesn't stay in the body doesn't belong to the body" and by the goals of knowledge advancement and social amelioration. Anything that might be discovered regarding drug use and/or sexual behavior is kept strictly confidential. Anonymity is guaranteed, as a number is substituted for each subject's name.

Our research project used both CAPI (Computer Assisted Personal Interview) and SAPI (Self-administered Personal Interview), along with a traditional interviewer. This approach reduces costs, as we need fewer interviewers, and also enhances standardization. Above all, our techniques bring increased control to the survey situation for *all* parties. When interviewers are used, they too must be watched and recorded to prevent them from making up or telegraphing answers.

All the data from the interview part of the study are available in real time via a password-protected Web page to professional observers at the cooperating research agencies. To reduce generative performance anxiety, respondents are not told about the remote observation. The interviewer wears a tiny earpiece device that permits feedback

and suggestions from the remote observers. Case agents with backgrounds in either law enforcement or psychology in another room monitor all data flows and quietly inform the interviewer if the respondent is deceptive, frustrated, stressed, fatigued, or unclear about the question.

Respondents are encouraged to learn more about themselves by volunteering (and most do given the rewards we offer) to let us apply our cutting-edge neuroscience tools capable of discovering real hidden meanings beyond the clumsy old-school devices that track skin, respiratory, muscle and facial responses or the plethysmograph used for phallometric assessment. During our interviews, subjects wear a fabric cap with EEG (electroencephalographs) sensors and an eye-tracking device while being exposed to websites or video images that are appropriate (e.g., featuring desirable consumer products from our sponsors and/or altruistic behavior) or inappropriate (e.g., featuring dangerous consumer products such as drugs and/or anti-social behavior). By computing deep subconscious responses to such stimuli, we can measure attention, emotion and memory far better than we can by asking people questions. And we eliminate the worry about the lying or uninformed subject, or contagion effects from focus groups. As this technology evolves it will hopefully permit us to brandwash in the good stuff and brainwash out the bad.

Respondents are promised confidentially. Only those agents who need to know their identity and data for a valid social purpose will have them. However, in order to benefit from generous frequent shopper rewards and to maximize choice, subjects are given the opportunity to waive this protection. A large percentage do, particularly those of lower economic status. Funds for this project were provided by leading marketing

researchers and helping agencies who are eager to identify customers and clients in need of their goods and services.

--end of NSF paper above back to the author's voice

Social Research Needs More Satire

Of course no real world case study is likely to contain all the elements that are worthy of consideration. For my integrative, synthetic, comparative and issue-raising purposes, the quasi-fiction piling on of techniques offers a convenient way to engage the breadth of the issues and to solder discrete empirical strands into a sculpture. As with film and lyrics, fiction can convey the subjective sense of being a watcher and of being watched, including the emotional wallop that persons may feel when they discover they are the subject of surveillance, as well as the powerful attraction exerted by secret knowledge.

Fictional accounts need not reflect an unrestrained dystopian imagination under the influence of some formally banned hallucinogenic at 3 a.m. Unlike the imaginative darkness of much science fiction, the surveillance stories in *Windows* are reality-based. As with "dark scenarios" illustrating potential problems with ambient intelligence or ubiquitous computing (Wright et al., 2008), these fantasies involve a *technology check* and a *plausibility check*. The former asks whether the technologies in the stories are realistic given current and emerging knowledge and technique. The latter asks whether equivalent incidents have actually occurred or are likely to occur. The fiction in the satires has a realistic quality absent in much imaginative science fiction, unbound by the empirical world.

Some science-focused readers may dismiss satirical fiction as fabrications. Language offers multiple meanings to words such as "fabricate," which means both to construct and to concoct, and to forge, shape and invent. Some constructions are clearly false, as in fabrications; the accounts in *Windows* forged out of actual events that while fabricated, are authentic in the color, feel, descriptions and issues they provide.

An account or construction may be fiction in multiple ways. One involves lies, deception, hoax, fraud, and distortion, in which a person claims that something happened, but it did not in fact happen. When caught, scientists and journalists get a bad name for passing off fiction as fact. But, while social fabrications, the symbolic materials and meanings of culture are not necessarily social deceptions.

In contrast, conventional fiction acknowledges that it is imaginary and makes no necessary claim to direct correspondence to a particular empirical entity. An intermediate case is the roman-a-clef, which involves real persons under invented names taking varying degrees of liberty with actual occurrences.

Another type of fiction well known to the social scientist is the ideal type as suggested by Max Weber (Gerth and Mills 1946). This ideal type makes a greater claim as to its reality, even if in its pure form it cannot be literally found. It is a mental construct involving a synthesis of historical facts.

These are fiction because they are not "embodied." Nor are they copies. They represent a composite of the empirical and seek to capture essential objective and subjective features of watching and being watched. The question is not did it really happen this way, but does it happen this way or is this the trend, and are the accounts useful in capturing the central features of the phenomena and in permitting contrasts to other forms?

While a social science satire may be fiction, it can be judged by a standard of verisimilitude that need not burden the novel. A composite account may be true even if it could not be empirically accurate. While the satirized events did not occur together at the imaginary times and places described, they could happen. They may be fiction, but they are not quite science fiction. The line between fiction and reality can be fluid, and quasi-fictional social science represents intentional genre blurring.

Fiction can help us avoid what Mark Twain (1984) referred to as the "impressive incomprehensibility" of many scientific and legal treatises. Thus, fiction informed by reality can supplement our conventional approaches. And perhaps by sparking thought, it can help shape emerging social worlds. What terms would we now use if Orwell had not written *1984* and would awareness be as acute?

The fictions are both docudrama and mockudrama, The author who does not make the fiction component clear risks having the work degenerate into propaganda. But there is also a tension between the scholarly need for accuracy, balance, fairness, logic, and depth and the requisites of provocative satire and fiction. Education needn't be entertaining, but neither should the solemnity of the academy preclude its being entertaining.

In writing fiction and stooping to satire, an author risks being taken too seriously or not seriously enough. Satire can succeed in being convincing but fail in not being seen as satire. The danger for a social scientist in mixing fact and fiction is that some readers will assume that the situations described are real in the literal sense, rather than being real in the ideal-typical sense of representations of things in, or potentially in, the world. At the other extreme, some readers will dismiss it all precisely because it isn't "real" as in literal. Of course, this is not a problem for those who view social science as mostly fiction anyway, whether because of the complex, ever-

changing nature of its topics, the illusiveness of subjectivity, relatively weak methods or the biases of its practitioners.

In offering thirty-seven moral mandates for aspiring social scientists (Marx 1997). I urged broadening our communication tools and for social researchers to have fun. Life is short, and the stuff many of us study is depressing and tragic. Humor not only alleviates stress, it can afford unique insights by pointing out cultural contradictions (Davis 1993).

Satirical fiction can offer additional advantages as a way of knowing and communicating about the social world. As important as traditional systematic data and theory are, they usually lose the non-specialist reader. Ernest Hemingway advises the writer to show rather than to tell. But the scholar should not be forced to choose. The affectivity of art, whether in the form of narrative writing, visual images, or music may enhance the effective comprehension of the topic. We understand some things non-cognitively, and passion can fuel the effort to cognitively understand.

Satire is a marvelous device for communicating about the ironic and paradoxical aspects of social reality. Social and legal methods courses would do well to train students in writing reality-grounded fiction and in the uses of irony, parables, satire, and humor. Quantitative analysis includes the well-established fictional tradition of using simulated data. It is more than time to develop an equivalent tradition for qualitative work.

Social Research and Surveillance: Here's Looking at You Kid

A survey is a form of surveillance. Survey and surveil sound alike and are synonyms. The former, however, does not usually conjure up Orwellian images. Rather the survey in its best light has been seen as a component of democratic society in which citizens can voluntarily

inform leaders of their attitudes and needs and help clarify public policy questions and all under presumably neutral, scientific conditions that can be trusted. Survey respondents are encouraged to participate in order to "make your voice heard." A pollster observes, "polling is an integral part of the democratic process, it gives everybody a chance to have an equal voice." (Krehbel, 2006)

That lofty potential is present, but so is its opposite. There is risk of a kind of scientific colonialism in which various publics are expected to offer unlimited access to their personal data, but rather than serving the public interest, this can facilitate manipulation by elites pursuing selfish and/or undemocratic ends. We might ask the optimistic pollster of the paragraph above, "Does everyone also have an equal chance to determine what the questions are, who gets questioned and how the data will be used " ? What does social research offer to those disadvantaged and beyond the mainstream who are disproportionately the subjects of research? Who do the surveys serve? Who sponsors and sets the research agenda? Such issues were of particular concern in the 1960s and 1970s (e.g., Horowitz, 1967 ; Gouldner,1970;Colfax & Roach, 1971; Mills, 2000).

Looking more broadly, abuses are more likely when surveillance is coercive, secret, involuntary, passive, and non-reciprocal and where there is surveillance of an individual by an organization. Concerns about crossing informational borders are also more common when the subject's specific identity is known and he/she is locatable and when the data collected are personal, private, intimate, sensitive, stigmatizing, strategically valuable, extensive, biological, naturalistic, predictive, attached to the person, reveal deception, and involve an enduring and unalterable documentary record. Ethical issues are also more likely to be present when the data

are treated as the property of the collector, are unavailable to the subject and the goals of the agents and subjects of surveillance are in conflict. Many of these factors are related to power and other resource imbalances.

While there are some common issues (social research usually involves a *nonreciprocal* information *flow* from the subject to the agent --the respondent does not usually ask the interviewer about his or her income or birth control practices) and can involve sensitive personal information, when compared to many forms of government, marketing and work surveillance, academic social research is in general less problematic.

Abuses of social research are lessened in general because the *goals* of the agent are more likely to be either *neutral* or *supportive* of the subject's goals. The major goal in academic research is the advancement of knowledge, whether for reasons of scholarship or public policy and planning. These are less likely to be in direct conflict with the legitimate personal goals or interests of the subject (relative to some bank, insurance, or employment settings). The data are also likely to become *publicly available* (both with respect to their content and for secondary use), rather than kept secret, or considered the exclusive property of the surveyor.

Furthermore, the survey is rooted in an institutional context, which provides standards and reviews. Universities and government agencies have expectations and procedures regarding responsible research. IRB boards can serve as a brake on unrestrained research (that they can also break desirable research is a different issue). Public and private funding sources exert control. Peer networks, the professions, and their associations through socialization and codes of ethics also may serve to limit research excesses.

The survey subject is obviously aware of the data collection and the interviewer as surveillance agent (although not necessarily of the survey's full purposes or of what will count as data). The subject also consents. The respondent is presumably free to refuse to be interviewed. According to a 2003 Pew Research Center survey, about seven out of ten telephone calls for an interview were unsuccessful. Contrast that with the difficulty of avoiding video, credit card and internet surveillance.

Beyond opting out when contacted, the individual may refuse to answer a question or terminate the interview. The interview setting also offers (or at least traditionally has offered) room for the subject to cover and protect information he/she would prefer to keep private. This may permit dignity for the subject not found under coercive, secret, and involuntary conditions. The subject traditionally has been free to decide just how much to reveal and how honest to be.

The harm in data collection from being asked to recall and report sensitive information may differ from that with the involuntary and coercive crossing of a physical border as with taking blood, a urine sample, or body cavity search. However, the chance of harm is lessened when the goal is aggregate data on populations, rather than data on the subject *per se*. As a result, the individual is unlikely to suffer direct adverse consequences. The deindividualization of the data works against this (National Research Council, 1993). Confidentiality and anonymity (with respect to both name and location) are likely to be promised. Identity is deleted or hidden via masking. The divorce of subject ID from the data can overcome the problems created in other similar structural and data settings, where the subject is identified and can be located using only a few pieces of information.

In summary, many of the correlates of surveillance abuse noted earlier are irrelevant to the typical survey context or if present can be dealt with through policies. Considering the broad array of contemporary surveillance forms, the traditional survey seems a rather mild invasion and intrusion, which is not unduly or unreasonably costly to the subject. Yet this does not call for a lessening of vigilance.

But what of social research carried out with new surveillance means as described in Professer Laser-field's report? The new techniques if unacknowledged and unregulated undercut some of the traditional protections. While there are broad ethical theories, there are no formulaic answers. The ethical codes of the professions and principles such as those in the Belmont Report (National Commission, 1979) offer general guidelines. However these are all rather abstract and reflect assumptions about what research tools could do at the time they were drafted. With the appearance of new techniques, it is often not clear how the principles apply. An alternative approach, while encouraging the researcher to be mindful of the above, asks for self-reflection (or better group reflection among the researchers and sponsors) with respect to specific questions about the data collection, analysis, and use contexts. Table 1 lists questions that should be asked of social research as well as other forms of surveillance. The more these can be answered in a way that affirms the underlying ethical principle, the more appropriate the use of surveillance is likely to be.

TABLE 1: Some Questions for Judging Surveillance

1. Goals: Have the goals been clearly stated, justified, and prioritized?

2. Accountable, public, and participatory policy development: has the decision to apply the technique been developed through an open process, and if appropriate, with participation of those to be surveilled?

3. Opening doors: Has adequate thought been given to precedent-creation and long- term consequences?

4. Golden rule: Would the researcher be comfortable in being the subject rather than the agent of surveillance if the situation was reversed? Is reciprocity/equivalence possible and appropriate?

5. Informed consent: Are participants fully apprised of the system's presence and the conditions under which it operates? Is consent genuine (i.e., beyond deception or unreasonable seduction) and can "participation" be refused without dire consequences for the person?

6. Truth in use: Where personal and private information is involved does a principle of "unitary usage" apply in which information collected for one purpose is not used for another? Are the announced goals the real goals?

7. Means-ends relationships: Are the means clearly related to the ends sought and proportional in costs and benefits to the goals?

8. Can science save us: Can a strong empirical and logical case be made that a means will in fact have the broad positive consequences its advocates claim? (This is the "does it really work?" question)

9. Competent application: Even if in theory it works, does the system (or operative) using it apply it as intended?

10. Human review: Are automated results, with significant implications for life chances subject to human review before action is taken?

11. Minimization: If risks and harm are associated with the tactic, is it applied to minimize intrusiveness and invasiveness?

12. Alternatives: Are alternative means available that would meet the same ends with lesser costs and greater benefits (using a variety of measures not just financial)?

13. Inaction as action: Has consideration been given to the "sometimes it is better to do nothing" principle?

14. Periodic review: Are there regular efforts to test the system's vulnerability, effectiveness, and fairness and to review policies?

15. Discovery and rectification of mistakes, errors, and abuses: Are there clear means for identifying and fixing these (and in the case of abuse, applying sanctions)?

16. Right of inspection: Can individuals see and challenge their own records?

17. Reversibility: If evidence suggests that the costs outweigh the benefits, how easily can the surveillance be stopped (e.g., extent of capital expenditures and available alternatives)?

18. Unintended consequences: Has adequate consideration been given to undesirable consequences, including possible harm to watchers, the watched, and third parties? Can harm be easily discovered and compensated for?

19. Data protection and security: Can surveillants protect the information they collect? Do they follow standard data protection and information rights as expressed in the Code of

Fair Information Protection Practices and the expanded European Data Protection

Directive?

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