Police Technology: crime analysis

User-friendly software allows crime data to be easily transformed into visually impressive computer presentations. **Peter K Manning** observes how these may influence police perceptions of crime.

The most fundamental process to have shaped policing practice during the past 80 plus years is neither crime control, nor ordering disorder, but information processing (Manning, 2003, Ericson and Haggerty, 1997). In the broadest sense, crime mapping and crime analysis are a part of the overall rationalizing of policing, patterned in part by information and associated information technologies (IT). The most common connection made in the scholarly literature between information processing and crime or disorder is the NYPD born 'compstat' process, accompanied by enthusiastic claims that it has reduced crime (Kelling and Coles, 1996). Recent work (Weisburd *et al.* 2003, Willis *et al.* 2004, Willis, 2004) including ethnographic observations in three sites, demonstrates that in large part compstat-like processes and meetings sustain traditional patterns of authority, policing strategies and tactics (saturation patrol; extra overtime for officers; surveillance), and minimal organizational change when defined as relocation of resources.

Unlike works that assume impacts of the process on management and crime, my research in three sites focused on the crime analysis meetings (CAM) in Boston to explore how crime analysis meetings worked. How were they logically linked to the imagined job of policing? What does crime mean? It remains unclear at this time, from my observations, what effects the meetings and information had upon crime or disorder control, management, rationalizing policing, or public satisfaction — but it does display police practices.

Boston's crime analysis meetings

The semi-public two hour crime analysis meetings (CAM) are held twice a month in a large room in the Boston Police Department. The command staff sit at a U shaped table in front of the room facing the large screen on which images are projected by civilian crime analysts sitting at laptops. Behind the top command are seated visitors, detectives, uniformed officers, academics, students, interns and others (the public, while represented by students, journalists or academics, have no voice in the proceedings). Officers from the two districts who are presenting are rehearsed by crime analysts with data in advance of the meeting. The meetings adhere to a strict format, chaired by the Commissioner, and contain routine reports as well as special presentations intended to display problem solving. The databases are on line, and electronic processing of all reports in the Boston Police Department permits dramatic availability of current data. The meeting's interaction is based on somewhat anxious presentations followed by questions from the Commissioner until he is satisfied and then questioning from other top command until they are satisfied. Jokes punctuate the interactions and break tension. The ecology reproduces the authority and power of top command – police officers, and white men (one black man sits at the top table and typically a few of the presenters are black; the sprinkling of women present are civilians).

Neither major issues of political or social importance, a horrendous murder, fatal shooting, extensive police chase, union crisis, nor pictures of such were discussed at CAM. Thus, ecology, format, police rank, gender and ethnic background serve to stabilize the meeting, restrict the time spent on a given topic, and shape the content and range of issues discussed. These are strong, abiding and tacit social constraints on IT based innovations (Manning, 2003).

How crime analysis meetings work

Police problem-solving in Boston was displayed in the here and now – 'what shall we do today?' – and focused, although not restricted to, direct, uniformed patrol approaches to 'crime'. Problem-solving, when displayed, was stylized to present a clear, organized, controlled effort. The circumscribed, rehearsed and selectively presented data sustained the impression that the police are fully able to control crime and disorder. Map use and responses were rooted in traditional police perspectives on managing problems of order. The maps stimulate traditional responses and in that sense their meaning is "occasioned." The impact of disorder or crime on citizens of given age, gender or area, are not given credence or relevance in the visual displays. Questions may lead to such discussions but discussion is based on officers' personal impressions, anecdotes, and stories. This passes for evidence. What is said is trusted. It reflects the taken-for-granted truths of the occupational culture (Waddington, 1998). Their relevance to citizen reassurance or trust is not examined. Nevertheless, visuals, particularly maps, are a powerful collective focus, and these, along with the salience of 'crime', multi-faceted and varying in meaning by unstated context, allow police in CAM to make sense of their jobs.

The unstated presumption is that these visuals represent what should and can be controlled, whether or not the actions bear on prevention, crime management, underlying social causes and consequences. The figures, graphs, tables, colorful maps and pictures are both a topic and a resource for the data seen and subsequent discussions. Those present assume that others know what they are talking about when they ask about crime (a topic), and these assumptions (as resources) can be drawn upon to sustain conversation, sequencing, and termination of discussions. Crime animates the meeting.

The ambiguity of crime

Crime, the focus of the meetings, is a word, an *expression* - it points somewhere to a *content* that constitutes a sign, something that makes it possible for others to respond. Crime is a complex multi-faceted matter, and yet it is narrowed in CAM to something about which talk can be generated and consensus found. Consider this:

- A crime is a 'natural event' in the world, there to be identified or named (itself a complex labeling process). It can be noted or labeled variously. Crime can be merely a set of conventionalized symbols (words, numbers), marks, or icons (triangles, circles, inverted triangles, squares in varying colour and size).Such displays suggest or connote differences without an explanation for their social bases. Crime can be noted by a symbol such as a word, e.g. rape, which has broad and elastic meanings or connotations produced by the

associations of the expression, crime, connected to the content, rape. Crime can be indicated by a mark – a place set in space, as in a pin map, an address, a street, park, or a GPS coordinate. Crime can be represented as an icon, a miniature version of something, such as when a SUV is used to mark the location of an auto theft, or a cockroach to mark a gang territory. Marks, icons or indices on a map obscure and blur their significatory functions. While a mark or index closely connects the word to action, like smoke equals fire, or turning on a light switch produces light, and an icon, a footprint, or picture is a mini-version of something, a symbol requires further interpretation.

• A varied set of crimes carried out by different offenders with different victims at a range of times (a week, month, or year) can be collapsed into a single cluster of ambiguous bright marks (hot spots). This also obscures such matters as repeat offending, co-offending, and repeat victimization. Variations in time, *modus operendi* and associated crimes and disorder clustering, e.g., social and physical disorder, or signal events that may portend risk, are not shown.

Mapwork

As has been emphasized, crime maps require interpretation. Any given map can include any or all of the types of signs: marks (street locations), indices (the location of gangs, drug dealing or crack houses), and symbols (colored areas indicating concentration and prevalence). While huge, bright animated maps cry out for interpretation, this work requires a social perspective.

A map is an icon, not the territory it represents. The world represented on the map is not composed totally of conceptions, but has a real material social and physical reality. The constraints and visibility of railroad tracks, parks, vacant lots, and high-rise public housing projects are real and visible, whereas the constraints of gang memberships, co-offending, networks of victims and their 'at risk' status is not so easily comprehended. The *tacit connections* made by officers between the expressions and the contents that constitute signs animate problem solving. Various icons, marks, and symbols, all types of signs, can represent social processes or locations or both. In order to have an actionable meaning, each of the expressions (one half a sign) has to be linked to a content or reference in the physical world – the street address; representation of the activity; and the crime(s).

Marks and indices are read by officers with commonsense understanding of an area, e.g., they know gang territories, disorderly parks and playgrounds, and high crime areas. Knowledgeable officers produce detailed stories and descriptions, such as the number of gangs in a city, or areas of intense dealing. Are these significant? Why? Are these problems? For whom? Are the signs and related graphs and numbers merely artifactual; a result of statistical variation, consistent with the range of such events over the past year? The concern in CAM is consistently with spikes up, never with drops, flat curves, or long term decline or increase. Substantively, for example, what do marks or icons showing gang activity refer to: people, crimes, meeting places, graffiti, or residences? To what risk or threat does each one point? What is a gang? When is such activity suppressed or prevented? These questions are not asked.

Given that expressions point somewhere else as well as to each other, what relationships exist between expressions on the maps? Groupings, such as 'hot spots,' are without certain meaning: the label is a cipher, useful to point somewhere and

indicate something is happening, could happen, did happen or might again happen. Hot spots could be defined variously. They could be points of intervention or prevention, represent problems of offenders, victims, or other matters with on-going social consequences such as unemployment. Since, and as long as, the term is used acontextually, police will rely on their past practices and knowledge to make decisions. They repeat what they have learned to do. What is not asked in CAM are broader, sociological questions: what place, process, group, or crime is to be controlled? How much should it be targeted and for how long? How long has this been a hot spot? Why? What are our priorities in terms of resources? How would one know if an intervention 'worked'? Based on what standards? What are benchmarks or best practices?

Maps certainly do dramatize selected indices of the selected offenses. Maps have vivid texture, variable size and flexibility, and can be easily manipulated in public presentations using Power Point-type software that allows presenters to quickly zoom in, bring up details of a particular crime by clicking on an address, and add layers of information. Graphics packages produce beautifully printed multi-coloured and coded maps of various sizes and detail, and can easily distract the viewer from considering what social dynamics underlie the display, animate the changes, and what they indicate and symbolize. The scale of the map can be manipulated to show huge mountains based on a small number of crimes, e.g. serial murders or rapes, or using a collapsed time frame (showing 10 years' crimes in one location). Colour is significant – bright colors, especially red, are favoured for crime mapping.

These things are visable. But what is the relationship between what is represented on the map and matters unseen that have been brought to it? Crime mapping reveals information, but it also conceals many underlying social processes, e.g. social disorganization.

Maps are occasioned in the sense that they only make sense when one has a use in mind. They are complex and potentially confusing assemblages. The need for them makes their relevance come clear, or emerge. Turning this around, we can imagine that reading a map means making it *transparent*, reading back to imagine how it was created and used, and forward to how it might be used. ∎

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