

Law Enforcement Organizations

Possibilities and Challenges for the Future

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Some previously legal activities are classified as illegal these days, and a number of today's crimes could be deemed lawful in coming years. Law enforcement leaders must accept the reality that change is inevitable, and preparing for it is an ingredient for increasing success. Current indicators may help organizations project what the future will hold for policing.

Looking back into the past is one way to understand the influence of innovation on police operations; it may aid departments in preparing for what comes next. Inventions during the industrialization of the United States, such as the automobile, telegraph, telephone, and electricity, dramatically altered the way law enforcement organizations functioned. Advances in photography, fingerprinting, and communications helped create databases for recording criminal activity; these assist officers with the identification and apprehension of suspects.

Since the 1980s progress in computer technology has placed vast amounts of information at the fingertips of police officers. They have immediate access to current regional and national crime data and files on stolen items and wanted suspects. Developments in DNA evidence and automatic fingerprint identification systems (AFIS) enable investigators to solve cases that previously may have gone unsolved. Crime-mapping software helps law enforcement administrators use resources more effectively and efficiently by putting officers where crime patterns have emerged.

EXISTING TRENDS

When examining the possibilities and challenges for the future of law enforcement, it is important to contemplate existing trends and predictions. One identified success due to advanced computer programs is the ability to forecast where crime most likely will occur. Many police departments across the United States already use this sophisticated software.¹ Large metropolitan areas, such as Los Angeles, California; Memphis, Tennessee; and New York, New York, currently use "data based," or "predictive policing," strategies to reduce burglaries, robberies, thefts, and other criminal offenses.²

The main concept behind this type of law enforcement is as basic as amassing crime data and looking for identifiable patterns to predict where new offenses probably will occur.³ Supervisors use the information to assign officers in a more logical manner to deter criminal activity.⁴



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Predictive policing is an effective way to get better results with fewer resources.⁵ Departments experiencing budget cuts and personnel reductions can position officers where they are needed most by using available crime data. As crime-tracking software becomes increasingly refined, accurate, and affordable, more agencies will employ the technology for day-to-day operations.

TECHNOLOGICAL ADVANCES

As new technology unfolds, law enforcement organizations must adapt techniques and amend policies to better serve and protect communities. Invention of the motor vehicle and in-car radio caused police to initiate motor patrols and centralized dispatching. Likewise, tomorrow's innovations will influence future police operations.

Crime Mapping

Police agencies now have the ability to predict when and where crime most likely will occur.⁶ There are strong indicators that the reliability and accuracy of this technology will increase for future officers.⁷ Police on patrol hoping to catch a criminal in the act probably will become obsolete.⁸

Sophisticated crime-mapping software can direct officers to locations where the greatest likelihood exists for preventing crime or apprehending a suspect. Interactive websites provide instant information for citizens and police that raises awareness to a new level.⁹ Individuals can obtain crime data about a location before they arrive or uncover criminal activity in their community without having to ask a police officer. Law enforcement managers can use this information strategically to place patrols in areas where most offenses have occurred.

The National Highway Traffic and Safety Administration (NHTSA) and the U.S. Department of Justice (DOJ) have implemented an operational model for law enforcement, Data-Driven Approaches to Crime and Traffic Safety (DDACTS), and have published guidelines for agencies to use in implementation.¹⁰ This program evaluates existing crime data so departments strategically can deploy officers where they need to be to reduce criminal activity and traffic safety problems. This emerging technology is expected to continue to grow and progress in the future.

Lie Detection

Advances in neuroimaging raise confidentiality issues. The possibility exists for reliable, secret, and remote brain-scan lie-detection systems.¹¹ Recent advances in imaging technology enable monitoring of brain activity without cranium penetration, and some tests can measure this activity both externally and covertly.¹²

Although the law enforcement community may welcome the potential for this improved science, the implications for privacy laws are of concern.¹³ If a police officer unobtrusively can conduct a brain scan of a suspect to test for truthfulness during an interview, the consequences for individual rights likely will come under scrutiny.

In a recent case, the Supreme Court of Canada ruled that the exterior measure of temperature patterns emitted from a home did not constitute a police search.¹⁴ This case involved use of a plane equipped with infrared technology to measure the escaping heat from a residence.¹⁵ The resulting information regarding the degree of warmth coming from the house led to a search warrant and the discovery of an illegal narcotics-growing operation.¹⁶ One justice concluded, "The patterns of heat distribution on the external surfaces of a house are not information in which the respondent had a reasonable expectation of privacy and offer no insight into the person's private life."¹⁷ This proposes the question of whether patterns of electricity emanating from the brain could fall into the same category. The potential for this type of technology brings the issue of reasonable expectation of individual privacy to a new level of concern for the future.

This type of brain-scan technique, using a process termed "brain fingerprinting," suggests the potential to discover if preexisting facts are present in the mind.¹⁸ Instead of a truth-or-lie test, this procedure determines if a person already knows certain information. For example, a detective could show photographs of a crime scene and establish if those images already are present in the subject's mind. This would indicate prior knowledge or could place a suspect at a crime scene by determining if the memory of the event already exists in the individual's brain.¹⁹

If this technology is fully developed, how will the information be used? Will law enforcement personnel be the only users, or will private entities gather and store data? What measures will be implemented to protect memories from criminals intending to obtain personal information, bank codes, or passwords? Law enforcement organizations and the courts must address these questions as they arise and the process advances.

DNA

Continuously progressing DNA mapping emerged in the mid-1980s as a highly significant, reliable identification process. Advances in this area enable recognition of individuals in criminal and missing person investigations. The United States and China have a combined database containing over 32 million known samples.²⁰ These have produced almost 600,000 positive matches, bringing closure to many cases.²¹

The future direction of DNA testing involves new technology combining several existing methods in a process termed "massively parallel sequencing (MPS)." This procedure will increase capacity by simultaneously sequencing DNA more efficiently and accurately using a variety of techniques and types of evidence samples.²² Advances in DNA processing combined with increased known-sample databases will provide extensive possibilities for future investigations.

Unmanned Aerial Vehicles

Police, fire, and other emergency services can use unmanned aerial vehicles (UAVs) to transmit data over existing wireless networks to gather valuable information from real-time reconnaissance during major incidents, such as toxic chemical spills, gas leaks, large fires, natural disasters, and terrorist attacks.²³ UAVs equipped with air sensors and video cameras can collect facts in these situations without risking the health and safety of rescue personnel.

As the potential for UAVs increases, so do the legal implications. Courts in several states temporarily have forbidden operation of these vehicles pending safety studies.²⁴ For instance, the state of Illinois recently passed a law banning law enforcement's use of UAVs without a search warrant and approving use only in clearly defined emergency situations.²⁵

Surveillance

Video surveillance is becoming commonplace in municipalities worldwide, and law enforcement organizations are capitalizing on this technology to effectively detect and dissuade criminal activity. Officers use these systems to identify and apprehend suspects. A DOJ guide outlines best practices for the installation and use of video monitoring equipment.²⁶ As technology improves, this will become a more widespread, essential asset for police.

Many agencies attributed the identification of suspects in the 2013 Boston Marathon bombing to various public and private videos that were active in the area.²⁷ The resolution and reliability of these systems are improving and enhancing the vision of police departments. Additions, including license plate identification, facial recognition, and night vision, continue to advance and increase the applications for law enforcement.²⁸

The future of video surveillance is changing rapidly as systems affixed to buildings or poles are enhanced with cameras attached to UAVs.²⁹ Court rulings regarding privacy issues and legal requirements for the operation of these vehicles demand compliance of law enforcement agencies. The probability of UAVs filling the skies, transporting items, collecting data, and conducting surveillance is high, and organizations must begin regulation and enforcement to protect the public.

TRAINING OPTIONS

An important aspect of any law enforcement agency is continual training. Education is shifting from traditional classrooms to online learning.³⁰ As baby boomers are beginning to retire, they are giving way to a new generation with greater familiarity and dependence on technology. The disappearance of the classroom along with these boomers could become reality, and the way police departments adapt to these evolving trends will change their future.³¹

Many companies use video game programs to teach basic job functions, ranging from preparing food to installing wireless networks. To teach and reinforce driving and tactical response, police academies could use advanced video game technology, which is well-suited to the new generation of officers. Some law enforcement agencies use firearms training simulators (FATS) with conflicting results; however, technological advances provide more realistic and interactive learning.

Increasing education costs and decreasing budgets could force law enforcement managers to consider alternative training options to meet future needs.³² There are some negative aspects to online instruction; for example, lack of social interaction might affect personal communication skills. However, the cost and convenience could lead administrators to employ it.³³ Although, to maximize training effectiveness, academies may consider a hybrid model consisting of both online and traditional classroom learning.

CRIMINAL INVESTIGATIONS

The investigative portion of law enforcement has evolved significantly due to technology. Crime fighters in the “Old West” often did not have photographs of culprits and had to base their arrests on physical descriptions or crude drawings. Developments in photography changed police operations and investigations. Subjects were photographed, and mug shot books were created, allowing crime victims to search pictures in hopes of recognizing a perpetrator. Today, officers collect photos, fingerprints, and DNA from suspects, significantly increasing the likelihood of positive identification. Due to advances in science and DNA with MPS, it is beyond the imagination what future law enforcement professionals will be able to accomplish.³⁴

Polygraph technology is a standard tool for assisting investigators in seeking the truth; however, many criminal courts do not recognize its accuracy or allow submission of its results.³⁵ Precise, reliable brain scanning is a future possibility for enabling police to look into a person’s mind and retrieve memories or thought patterns.³⁶ Law enforcement organizations and the courts will have to monitor this technology to ensure that officers employ it appropriately and others do not use it for illegal purposes.

INTERNATIONAL JUSTICE

As technological advances in communication bring the world closer together, the concept of international justice may be a viable consideration and not just for extreme and heinous offenses. The principle requires agreements between countries so criminals can be prosecuted across international borders. The Nuremberg Trials in 1945 marked the first type of multinational court.³⁷ Four years later the 1949 Geneva Convention examined countries’ obligations to enact legislation allowing effective penal sanctions for individuals charged with “grave breaches.”³⁸

Between 1948 and 1976, the United Nations enacted treaties regarding racial discrimination, prejudice against women, and the legal rights of children and more recently has recognized rape and sex offenses as crimes against humanity.³⁹ As of May 1, 2013, 122 countries ratified the creation of the International Criminal Court (ICC), governed by the Rome Statute and seated in the Netherlands.⁴⁰ The ICC already has heard international cases, and several have been prosecuted and may serve as an effective deterrent for prospective war criminals and a warning for others to reduce atrocious crimes in the future.⁴¹

Criminals across the globe use the Internet to conduct cybercrime and fraud that often is outside the scope and jurisdiction of local and federal law enforcement. Organizations must work closely together and may need an international court to oversee investigations and conduct trials that cross international borders. In the future stronger alliances between countries could better serve everyone’s interests by combining resources to reduce crime and protect victims.⁴²

FUTURE LEADERS

Another concern for law enforcement is training and developing future leaders. Recruitment, preparation, and growth will affect the success of police organizations.⁴³ Officers from the millennial generation—born between 1978 and 2000—are replacing retiring baby boomers.⁴⁴ This new group has grown up in a world of instant information and communication in an online environment much different from that of the boomer.⁴⁵

At a police executives’ conference, a North Carolina Highway Patrol captain discussed the strengths and weaknesses of the millennial generation.⁴⁶ This officer stressed that law enforcement administrators must recognize this group’s online interaction and navigational knowledge as valuable assets to the organization.⁴⁷ When training new leaders, methods should reflect the abilities and preferences of the learner, and the transformational leadership of the department must recognize and accept change as the next generation takes the helm.⁴⁸

WELLNESS PROGRAMS

The motivation and productivity of future officers may revolve around well-being. Organizations are trying to reduce workers’ compensation claim losses and high insurance rates by focusing on employee wellness programs.⁴⁹ Smoking cessation classes and mandated health exams are becoming requirements for lowering medical insurance fees. Additionally, many police departments are considering physical and mental fitness testing for recruits and incumbents. As health care costs increase and managers attempt to maximize staff efficiency and effectiveness, the focus on wellness will continue.

Agencies are looking closer at health and well-being as ingredients for reduced stress and increased productivity among personnel. Administrators recognize the importance of these programs because improved physical condition strengthens performance and morale while reducing medical expenses for both the employee and the organization.⁵⁰ The future of healthcare in the United States will have a significant influence on departmental fitness policies.⁵¹

CONCLUSION

Predicting the future is complicated and nearly impossible. Often, unforeseen and uncontrollable measures dictate the direction of organizations. Terrorist activities radically have transformed how police train and respond to events.

As laws change and technology evolves, some of today's actions will not be criminalized in the future. The war on drugs already has started to shift with the legalization of recreational marijuana in some states, which may continue across the country in years to come. The repeal of Prohibition in 1933 caused officers to move from enforcing the ban on alcohol to handling its effects and the public nuisance and safety-related crimes it created. Similarly, making marijuana legal will modify the mission of police agencies and may reveal new problems associated with its use.

Although predicting the future is difficult, law enforcement leaders can look at current trends and existing technology to begin thinking about issues that could affect the next generation of officers and leaders. A shift from classroom to online learning to accommodate the new generation may become more pertinent in the near future.

Technological advances—DNA mapping, lie detection developments, UAVs, high resolution video surveillance systems, crime-mapping technology, and online learning—are clear indicators of issues that will alter the future of law enforcement. To function effectively organizations will need to adapt, train, and incorporate response to change. On the other hand, criminals will work continuously to circumvent progress as the struggle for law and order continues for years to come.

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Endnotes

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