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Analog Cameras Capture — Digital Cameras Convict

There is substantial evidence that technological advances in digital surveillance cameras have a large impact on conviction rates.

A modern, megapixel surveillance camera, when part of a networked video surveillance system, has 32 times the effective resolution of an average analog surveillance camera connected to a video recorder.

Details matter. Clear, noise-free images of a face are needed for juries to ID a suspect "beyond a reasonable doubt." Detectives look for unique features, such as a scar, a missing button on a shirt, or a scratch on a vehicle as sufficient evidence to obtain a critical search warrant.

This white paper contains a collection of news stories, all of which have been previously reported.

100% Conviction Rate in 500 Arrests in Minneapolis

"Existing [digital] fixed-wire cameras in Minneapolis have led to a 100-percent conviction rate from about 500 arrests over 18 months."

(<http://publicsafety.wifinetnews.com/archives/media/video/>)

Crime Drops 40%, Arrests Increase 50% in Manchester

"As the UK's largest commercial car park operator with more than 580 car parks, National Car Parks (NCP) has seen crimes in Manchester drop 40 percent, coupled with a 60 percent increase in arrests since the introduction of the new control center.

The solution? Swiveling, tilting, staring cameras in a closed-circuit television surveillance system supported by IBM digital media technology. 'Surveillance is a strong crime deterrent,' explains William McLean, operations director at National Car Parks. 'But it is the high-resolution digital images that help take criminals off our streets.'"

(www-03.ibm.com/industries/retail/doc/content/bin/NCPusesIBMDigitalMedia_1.pdf)

Cameras in Watts Cause 32 Percent Drop in Crime

“The LAPD says their Wi-Fi-linked IP video surveillance in Watts has caused crime to plummet: Video surveillance has a particular emphasis around the Jordan Downs housing project as gang members are forbidden by injunction ‘to loiter, congregate, drink in public, and carry weapons,’ Information Week writes. Traffic is down in that one area by 32 percent, and smaller declines in adjacent neighborhoods.

(<http://publicsafety.wifinetnews.com/archives/media/video/>)

182 Street Corner Drug Dealers Arrested in Cook County

“Using a digital video surveillance network as part of investigative tactics to target both drug dealers and their customers, Cook County Sheriff’s Police have arrested 182 offenders following a four-month crack down on street corner drug dealing in the southern suburbs’, Sheriff Thomas Dart announced today.

“‘Drug operations like this are effective,’ according to Dart, ‘because they attack the drug problem from both the supply and demand sides, and they have a direct impact on improving public safety in local neighborhoods. In addition, due to the video surveillance tactics later used in court proceedings, conviction rates are exceptional.’”

(<http://www.cookcountysheriff.org/press/newspage.asp?id=189>)

Calgary and Vancouver Get 100% Conviction Rate With Digital Video

“Kathy McCaw, of the Calgary Police Service, has found that detectives fall quickly in love with the new technology, once they see how it can aid their investigations. And she should know—her husband is a detective with Calgary’s sex crimes unit. ‘Everybody uses it...Homicide, Robbery, Sex Crimes, Fraud. Everybody. It’s actually changing the way we do search warrants. The video quality is so good that now we analyze first, then make a list for the warrant.’

“Working closely with the investigation team, McCaw first looks for the obvious identifying characteristics. After that, she examines again for the more subtle things. ‘Shoes are good,’ she says, ‘glasses, weapon, of course. But we can also see if a button is missing on his shirt, or wear on the elbow of a jacket. Even mannerisms. Once the detectives execute the warrant, we can compare the articles seized with the video.’”

“The improvement of image quality in digital video analysis not only leads to more and quicker arrests, it also leads to less time spent in court for officers who should be on the street. ‘The goal is not to get to court,’ says a confident McCaw, ‘and once they see the tape, they know their goose is cooked.’

“Grant Fredericks' experience in Vancouver supports McCaw's confidence. ‘When we sit down with defendants and their lawyers, we get about 95 percent guilty pleas, once they see the tape.’ Of the other five percent, Fredericks says that, ‘so far, they have a 100 percent conviction rate. We take the [recorded video on a laptop] directly into court and play it for the judge and jury.’

“Marcus Gumpenberger, who runs the video unit at the York Regional Police Department in Ontario, Canada, cites a case in Toronto where a bank teller was stabbed. ‘They had 12 [analog] cameras in the place, the guy wasn't wearing a mask, but they couldn't get an identifiable shot.’”

(http://www.avid.com/profiles/111501_doubleduty_for.asp?featureID=90&marketID=5)

Digital Video Helps the “Good Guys” in Alabama

“Joe Brown [a highway patrolman in Montgomery, Alabama] used to dread his days in court. Now, he goes there with more confidence than ever. He can quickly and efficiently find specific digital video and/or audio footage by inputting a suspect’s name or a date. Alternately, he can find specific footage [on his laptop] using date, times, officer names, suspect’s names or driver’s license numbers as search criteria.

“‘The result,’ Brown says, ‘is higher conviction rates, less chance for lawsuits and a chance for officers to defend themselves against many unjustified complaints. Digital video evidence is available to back up the good guys.’”

(<http://www.policeone.com/police-products/vehicle-equipment/in-car-video/articles/99491/>)

US Department of Justice Uses Portable Digital Video Recording to Improve Conviction Rates

“The United States Department of Justice, through the C.O.P.S program awarded State police agencies with funds to purchase mobile video recording equipment in some of each agency police vehicles. Dr. Jim Kuboviak compiled a training team, which came together to create the Law Enforcement Mobile Video Institute, Inc. ‘This comprehensive training program...is continually being updated with law and policy. Courses are offered for both practitioners in the field and for law enforcement trainers in a 40-hour instructor’s course. Law enforcement officers in other states were not receiving the same results as the initial pilot studies conducted throughout the United States. Through training the officers on the most beneficial use of this equipment, not only did conviction rates increase, but also officer court time diminished. With the complexity criminal prosecutions, officers needed tools to not only convince juries and judges of a defendant's guilt but tools that would insure that offenders receive appropriate punishments.’”

(<http://www.policeone.com/police-products/vehicle-equipment/in-car-video/articles/93860/>)

Digital Cameras Identify and Convict, Even After The Fire

“Last year we put a security camera system into a auto-recycling yard using IP cameras. They had been suffering a rash of after-hours break ins to steal the platinum that is in old catalytic converters. The system recorded to a DVR, but also was hooked to motion sensors that, when activated, would call the manager's cell phone, as well as start pitching still shots across the internet to a remote ftp server.

“Two weeks after installation, the thieves broke in. When they saw the cameras and the DVR, they set fire to the place to destroy the evidence, but the still photos were enough to identify and convict them. They haven't had a problem since.”

(<http://slashdot.org/article.pl?sid=07/08/30/0321232>)

Arlington County Police Achieve 100% Conviction Rate

“Bait cars are regular automobiles outfitted with audio and high-tech video surveillance equipment to catch would-be auto thieves. In addition, bait cars send a signal to dispatchers when they are entered or when the ignition is started. Dispatchers can then track the vehicle via GPS technology and remotely control several of the vehicle's functions, including the engine. Arlington has a very successful Bait Car Program with a 100 percent conviction rate.”

(<http://www.arlingtonva.us/Departments/Police/news/article.asp?ID=430>)

Digital Cameras Save San Diego School \$65,000 in Insurance Claims

“When San Diego's Torrey Pines High School installed a security video management system by D3Data, LLC last year, school officials hoped the wireless, off-network cameras would help them remotely monitor the building and, in doing so, cut down on vandalism. The system did just that, with unexpected result: ‘The school's vandalism-related insurance claims have dropped by six figures since implementation, including savings of \$65,000 over the holiday break alone as compared to previous years.’”

(http://www.d3data.com/wsContent/default.view?_pagename=helpSchool)

Digital Cameras Aid in Both Prevention and Rapid Arrests

“The Center for Education and Business (called CEU Kolding) is located in the city of Kolding, Denmark.

“To take action against theft and vandalism, the school decided to implement in early 2002 a new network-based surveillance solution from Milestone Systems.

“The installation covers all classrooms, meeting areas, hallways and entrances, and involves 44 cameras, 30 of which are AXIS 2120 Network Cameras. The 14 others are analog cameras--most from a previous installation. Those initial investments in analog cameras, however, are not lost. They are now connected to eight video servers, including two AXIS 2400 Video Servers and one AXIS 2401 Video Server, which convert analog signals into digital data.

“Both the recordings and the operation of the old system were bad,’ recalls Svend Erik Rasmussen, Vice President at CEU Kolding. ‘All the images were saved on tapes, and it was very difficult and time consuming whenever we had to find a specific recording.’

“Hit by robberies in December 2002, the school simply searched its digital video recordings to discover that the thieves were known locally. The images were sent immediately to the police, who used them to solve the case and make their arrests.

“The school reported that the networked video surveillance system has since proved to have good preventive effect, with the number of incidents falling to barely one a month, which is considerably less than other big schools. CEU Kolding also found the system to be ‘both simple and easy to operate, as well as user-friendly when it comes to upgrades. The solution delivers much better picture quality than the previous analog system, and specific recordings can be quickly and easily identified in the system.’

“‘We are saving both time and money – and if there is an incident, we have good evidence to solve the investigative work,’ says Rasmussen.”

(http://www.axis.com/success_stories/viewstory.php?id=2)

Digital Camera System Reduced Property Crime by Two-Thirds

“Statistics from North Yorkshire police show that CCTV helped York city to cut its annual losses of £1.5 million by two thirds since a [fibre-optic connected camera] system was installed at a cost of £100,000 [about \$200,000].”

(www.btredcarevision.com/pdf/Vision_ReducingCrime_Jan2006.pdf)

Analog Cameras Worthless at SF Public Housing

“The 178 video cameras that keep watch on San Francisco public housing developments have never helped police officers arrest a homicide suspect even though about a quarter of the city's homicides occur on or near public housing property, city officials say.

“The authority has spent \$203,603 to purchase and maintain its cameras since installing the first batch in the summer of 2005.

“Lt. John Murphy of the homicide detail called the quality of the camera's pictures ‘very poor’ and said that ‘crimes committed during the night tend to just show up as a shadowy figure dressed in dark clothes running quickly.’ ‘Bang, bang, bang - they're back in the shadows and gone,’ Murphy said.

“You see where it occurred, but to positively ID someone? ‘No,’ he said. ‘If we can improve the technology in any way, that would be great.’”

(<http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2007/08/14/MNIPRHRPE.DTL&hw=knight+video&sn=001&sc=1000>)

Mt. Baker High School Catches Student Who Caused \$30,000 Damage

“Our goal was to design a system that was free from user intervention, was easy to build from the ground up and was easy to expand,’ said the Mt. Baker School District [San Diego County] Network Administrator, Mark Challenger. ‘When we started looking at specifications, TCP-IP cameras stood out immediately.’ ‘The advantages of IP technology were obvious,’ Challenger said. Most notably, an IP video security system could plug into and run over the school district’s existing network.

“The school districts new IP camera can be moved to other locations as needed it allows us to highlight certain areas and keeps the students guessing,’ said Challenger.

“The new video security system uncovered a student who caused \$30,000 worth of damage to school property. Security problems have since reduced.”

(http://www.d3data.com/wsContent/default.view?_pagename=9041)

IP Cameras Solve Thefts, Assaults and Vandalism in Oregon

“We've used our [IP-based video surveillance system] to solve thefts, assaults, and vandalism.’ ‘We plan to install more NETVM servers in other school buildings in the near future.’ - Bart Kunz, IT Manager, Lincoln County [Oregon] School District.”

(http://www.d3data.com/wsContent/default.view?_pagename=9041)

Illinois Police Say the Upgrade to Digital Cameras like "1970 TV to HDTV"

"The Lake in the Hills [Illinois] Police Department has been selected by a downstate company, Decatur Electronics, as one of four sites nationwide to test in-squad digital video recorders,' said police Sgt. Don Fowler.

"The department now uses analog video cameras in half the village's 12 squad cars but will be upgrading them to digital in March. The move will help build more solid cases against speeding motorists and in DUI cases.

"The Hi-8 cameras now mounted on the dashboards record incidents only when the emergency lights are activated, often missing chance to tape an actual offense,' Fowler said.

"You can't pull someone over until they commit a traffic offense,' said Fowler. 'And by the time an officer witnesses that, it has already occurred and goes undocumented.'

"But the digital recorders have the capability to record images constantly and can be set to automatically store images two minutes before the lights are activated - usually catching motorists in the act,' said Fowler.

"Another benefit of going digital,' Fowler said, 'is that police will be able to do away with lower-quality analog tapes and will have the ability to better enhance digital images, such as license plate numbers.'

"The difference can be compared to a 1970s television to what an HDTV is now,' said Fowler."

(<http://www.policeone.com/police-products/vehicle-equipment/in-car-video/articles/79221/>)

For More Information

<http://www.library.ca.gov/CRB/97/05/>

http://www.axis.com/success_stories/index.php

<http://www.policeone.com/police-products/vehicle-equipment/in-car-video/articles/93860/>