An Electronic Cop That Plays Hunches

Interconnecting Police Files Through New Computer System Helps Prosecutors in Sniper Case

By MINDY SINIC

TUCSON, Oct. 28 — Officials building a case against the Washington-area sniper suspects are using a new investigative tool to help trace their movements across the country. It is an Internet-based system called Coplift, developed at an artificial intelligence laboratory here, that allows police departments to establish links quickly among their own files and those of other departments.

During the 21 days in which investigators scrutinized the area, investigators used everything from specialized databases to geographic and criminal profilers to radio and television announcers to track their movements. In what turned out to be the last hour of the pursuit, the suspects finally reached out to Coplift. As it turned out, the Maryland and Los Angeles authorities were armed before it was fully installed, but now the post-attack force is using the system to help connect the dots.

All of the information that is collected — including that from other computer databases like the Federal Bureau of Investigation’s RICINC — is now being incorporated into the Coplift database so that the accumulated data can be compared, said Robert Griffin, president of Knowledge Computing, a company involved in the project. "It’s a very powerful Internet search engine," he said, referring to a widely popular Internet search engine that, given a couple of words, can find an array of related Web sites. "Things that a human could intuitively see the computer does, too."

During the sniper investigation, which generated hundreds of thousands of pieces of evidence, police found hundreds of pieces of evidence that, when put together, assisted investigators in their search. "We were publishing a massive amount of information," said Lt. Mitch Cusshammer of the Montgomery County police. "We had notice resources, the military, federal, state and local law enforcement agencies and information technology using several products where each had a different role."

So when the National Institute of Justice, the Justice Department’s research and development arm, suggested that the sniper case try Coplift, the officials agreed.

For one thing, it is suggested that old-fashioned detective work is being replaced by machines, the idea behind Coplift is to provide a computer program that can help police officers access precise times and locations even in remote areas. That is one thing Coplift claims to do: "Cops can do what computer techies do in a much more effective way."

"There is a greater and greater role for technology in law enforcement," Lieutenant Cunningham said.

Software like Coplift is already part of many law enforcement agencies, said Richard A. Brooks, director of the Artificial Intelligence Laboratory at the Massachusetts Institute of Technology. "It’s in practice in many law enforcement agencies, and it’s in use in a form of the computer in some law enforcement agencies," he added. According to Mr. Brooks, the company that he is part of, is one company that is using Coplift in Afghanistan before military units enter and that much machinery are finding their way into municipal police forces. "Columbine High School is a great example of how the police did not know what was going on inside," he said of the 1999 school shootings in Colorado.

Furthermore, he said, the human mind can process and retain only so much information. "There are enormous amounts of facts and connections out there, more than can be held by any one person’s mind," he added. "Just like with genes patterns, it’s too much too complex for someone to remember it all."

Coplift works by linking and cross-examining data from different and existing files. For example, Mr. Griffin said, in a Tucson case a man was found to be locked down after his trouser has been cut and he had been run over by a vehicle. The man was still alive, and before he was taken to a hospital he told police

Copley casts a Google-like net for law enforcement.

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"It’s a large amount of data that has to be analyzed," said Donald H. Robinson, this month’s Tennessee Attorney General. A student in a class at the University of Southern California, Mr. Robinson has developed a similar program. "I have been working on it for quite some time," he said. "It’s a very complex program."

A few days earlier, Mr. Robinson made an appearance in front of the New York Times staff. "It’s very exciting to see how far we’ve come," he said.

The AI-based system has been developed at the University of Arizona, who has developed Coplift, a new investigative tool that says can consolidate and analyze police data nationwide at the scene. "Sherly did it," the name Sherly was put into Coplift and cross-referenced with the victim’s personal data, and within minutes the records showed that the man had been in prison together.

The program also allows users to look at lists of data or to create graphs, and charts showing affiliations among different criminals.

At the moment, the Tucson Police Department is the only one in the country where Coplift is fully installed, although about a half-dozen other cities have begun to implement Coplift into their existing computer systems. The costs of the program, and training can range anywhere from $40,000 to over $200,000, depending on the size of the department and existing computer systems, Mr. Griffin said.

The development of Coplift has been financed in part by the National Institute of Justice and by the National Science Foundation. Washington should expand the technology’s impact, although criminals often go beyond a single jurisdiction, as in the sniper case, data on a crime from one type of weapon used to another can be found in a single department’s files and the connections between crimes may be overlooked. But Dr. Chen insists Coplift is

"An Electronic Cop That Can Play a Hunch to Help Find Criminals"

"There is a lot of technology that can be done with Coplift, said Robert Griffin, coplift’s president. "We can use this technology to find criminals in any state, even in cities that don’t have cops."

Dr. Chen said that in time, it may be used to help law enforcement agencies nationwide. "It’s a new tool that can be used in many different ways," he said. "Everyone can know by the same machine."