# COPLINK nabs criminals faster

*COPLINK coordinator Sgt. Jennifer Schroeder, left, and Detective Tim Petersen, center, confer with Hsinchun Chen, who developed COPLINK at Tucson's Knowledge Computing Corp.*

**By Alan D. Fischer**

**Technology developed in Tucson is helping police catch criminals faster.**

COPLINK products let police agencies rapidly share crime information across jurisdictional lines and analyze the data, said Hsinchun Chen, founder of Knowledge Computing Corp. and head of the University of Arizona's Artificial Intelligence Lab. The system allows investigators to access a wide variety of sources to link suspects to crimes, identify and apprehend them.

The system, developed as a cooperative effort between the UA and the Tucson Police Department, is expected to expand beyond Tucson to allow regional information-sharing among police agencies around the world.

COPLINK Connect, one of Knowledge Computing's two products, collects data from non-linked computer systems within a single agency or among different participating agencies across jurisdictional lines. And COPLINK Detect, a related but separate product, sifts through the vast array of information and connects the clues to identify suspects, vehicles and weapons.

COPLINK Connect allows law enforcement agencies to use their existing data storage systems rather than starting from scratch at great expense, Chen said. It forms another system layer on top that allows the varied, often incompatible systems to talk to each other through a common Internet protocol.

COPLINK Detect adds information analysis to find relationships between suspects, criminals, vehicles and weapons. For example, detectives with three clues - a suspect's first name, a partial license number and vehicle color - could use COPLINK to sift through computer records and identify the suspect.

"We use text mining to go into 1.5 million criminal records and find associations, addresses, weapons and so forth using the computer's power," Chen said.

Assembling information from myriad sources and sorting clues, it takes 10 to 20 minutes to do what could take detectives two or three days.

The system is secure because interagency information exchange happens within protected "firewalls," he said.
The Tucson police will start phasing in COPLINK Connect department-wide tomorrow said Sgt. Jennifer Schroeder. The department will launch COPLINK Detect in March, she said.

In early, limited use of the system, the department has used COPLINK Connect with great success, Schroeder said. Without it, several now-closed cases would have gone unresolved, she said.

Criminals often commit crimes in neighboring jurisdictions, Schroeder said. Linking people, activities, weapons and vehicles among crimes reported in Tucson and Phoenix, she said, enhances the likelihood of apprehending criminals.
In one recent case, federal officers seeking a suspect knew he had a sister living here, but did not know her name. They did know, however, that she reportedly was the victim of domestic violence, and they knew her boyfriend's name.

Using COPLINK Connect, it took five minutes to fit all the clues together and come up with the suspect's name. Using more conventional investigation methods, detectives would have had to sift through many sources of records, with plenty of skill, luck and time to find the suspect, Chen said.

"Any program that allows law enforcement agencies to swap information has to be a plus," said George Vuilleumier, president of the National Association of Chiefs of Police, a 12,000-member group based in Miami. "The more we exchange information the worse off the bad guys will be."

In the past, Vuilleumier said, agencies seldom exchanged case information because of a lack of accessibility.
Detective Tim Petersen, one of 40 Tucson officers who have used COPLINK regularly since October, called the system, "very simple to catch onto. It's very user-friendly and intuitive."

He said the system allows quick access to the department's three data storage areas - data management, gang records and mug photos - from a department computer. It soon will be in patrol cars, too.

Before COPLINK, officers had to search files located in different parts of town, Petersen said. "It's really shortening the time I need to spend on record searches."

The technology was developed at the UA Artificial Intelligence Lab with a $1.1 million grant from the National Institute of Justice. Knowledge Computing Corp. was spun off to sell the product. The company has an exclusive licensing agreement with the UA's technology transfer program, and pays the UA to use the technology developed there, Chen said.

In addition to the initial grant, the program received $1.2 million from the National Institute of Justice to expand the program into Phoenix, and an additional $2.6 million from private investors to launch the commercial end of the business, he said. Also, the UA received $1.6 million from the National Science Foundation for further development of the COPLINK technology, he said.

John H. Boone, vice president of sales and marketing at Knowledge Computing, said the system costs about $500 per officer for the Connect product and $1,000 per officer for the Detect portion. But the company is offering introductory discounts of up to 70 percent.

Knowledge Computing has grown from one person - Chen - to 25 in the past eight months. Chen expects to have 120 to 150 people in the coming year.

The company was founded four months ago at the UA Science and Technology Park, but rapid growth resulted in a move to 6,000 square feet of leased space at 3915 E. Broadway, Suite 301. And that site will soon be outgrown, he said.

"We are constantly running out of space, and we are constantly looking for high quality employees," he said.

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