

COPLINK Center: Information and Knowledge Management for Law Enforcement
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As part of nationwide, ongoing digital government initiatives, COPLINK [Chen et al. 2002, Chen et al. 2003, Hauck et al. 2002] is an integrated information and knowledge management environment aimed at meeting some of the challenges faced by the law enforcement community. Funded by the National Institute of Justice and the National Science Foundation, a prototype for COPLINK was initially developed at the University of Arizona's Artificial Intelligence Lab in collaboration with the Tucson Police Department (TPD) and Phoenix Police Department (PPD). COPLINK was developed into a product by Knowledge Computing Corporation (KCC) and deployed in approximately one hundred law enforcement agencies nationwide [see for example The Los Angeles Daily News Dec. 6, 2003 and Anchorage Daily News Nov. 23, 2003].

The main goal of COPLINK is to develop information and knowledge management systems technologies and methodology appropriate for capturing, accessing, analyzing, visualizing, and sharing law enforcement related information in social and organizational contexts. COPLINK is a law enforcement tool that allows officers to access information from other law enforcement data sources. The COPLINK center has already bridged gaps between law enforcement agencies by allowing secure access by officers of some of the participating agencies. COPLINK has already shown its capabilities in the area of data sharing. As an example, the following is a quote from one of the Tucson Police Department (TPD) officers who uses COPLINK. *"COPLINK saved me tens of hours and the possible closure of a child rape case. My case involved a suspect only known as (NAME WITHHELD). We did not know how to spell his name and no address. Using COPLINK 's wildcard search I located a lost wallet report to the suspect's father and at the list location I found the suspect's vehicle. Several months later San Diego has a DNA hit on a child kidnap/rape case and I was able to provide them with suspect information. If COPLINK had been connected to Phoenix [this investigation occurred prior to TPD-PPD COPLINK connection] I would have been able to pull his photograph and fingerprints from an arrest I learned about later. This person has a warrant for his arrest. Without COPLINK I probably would have closed the case as unsolved".*

The Knowledge Discovery and Dissemination (KDD) project (funded by the National Science Foundation) and the Border Safe project (funded by the Department of Homeland Security) are recent AI lab initiatives that encompass collaborative efforts between the University of Arizona's AI lab, law enforcement agencies in Arizona such as TPD, PPD, Pima County Sheriff's Department (PCSD) and Tucson Customs and Border Protection (CBP) as well as San Diego ARJIS (Automated Regional Justice Systems) and San Diego Supercomputing Center (SDSC). These projects expand on existing partnerships and technologies in addition to breaking new ground in both areas. There is now a working VPN between ARJIS and TPD over which a small group of investigators from each department have begun querying the others' dataset. One day after implementing this connection a TPD crime analyst investigating information about a suspect from California involved in a TPD incident was able to obtain mug photos and drivers license photos from the ARJIS connection. The information and photos will be used to create a bulletin warning of officers' safety issues related to this person. Also, the gang sergeant at TPD has already found information in the ARJIS dataset relevant to criminals he is currently investigating in Tucson.

The Tucson sector of the Bureau of Customs and Border Protection (CBP) has shared a list of border crosser license plates with the AI lab for analytical research. Researchers have compared that list of records to the TPD criminal record database. They have identified

relationships between criminals and vehicles involved in multiple border crossings and multiple narcotics offenses [Marshall et al., 2004]. Other areas of interest such as violent crime involvement, gang offenses and serious criminals are also being examined. Tying together criminals, their vehicles and activity histories can produce powerful tools to create leads for criminal investigation.

We have taken the necessary measures to ensure data privacy and security. It is important to note that the data shared between agencies through the initiatives discussed above, contains only law enforcement data and is available only to individuals screened by these agencies using fingerprints, TPD Background Check, Employee Non-Disclosure Agreement (NDA) and the TOC (terminal operator certificate) test. As our society becomes more mobile and criminal activity follows that trend, the need for law enforcement to keep pace is reinforced. Law enforcement must be able to follow the activities of criminals beyond the boundaries of a city, county or state. New criminal venues such as cyber-crime, identity theft and international and domestic terrorism require that the law enforcement community respond with measures such as better information access among officers.

References

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- Department of Homeland Security (DHS) / Corporation for National Research Initiatives (CNRI): "Border Safe," # NBCH2030002, Sept. 2003 – Nov. 2004.
- National Institute of Justice, "COPLINK: Database Integration and Access for a Law Enforcement Intranet," July 1997-January 2000.

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