

**Defense Advanced Research Projects Agency's
Information Awareness Office
and
Total Information Awareness Project**

The Defense Advanced Research Projects Agency's (DARPA) mission is to research and demonstrate innovative technologies to solve national-level problems, such as the grave terrorist threat which our nation faces. DARPA created the Information Awareness Office (IAO) in response to September 11, 2001, to research, develop, and demonstrate innovative information technologies to detect terrorist groups planning attacks against American citizens, anywhere in the world.

Contrary to some recent media reports, IAO is *not* building a "supercomputer" to snoop into the private lives or track the everyday activities of American citizens. Instead, IAO is developing an experimental prototype system that consists of three parts—language translation technologies, data search and pattern recognition technologies, and advanced collaborative and decision support tools. Together, these three parts comprise the Total Information Awareness (TIA) project.

The language translation technologies will enable the rapid translation of foreign language publications and give intelligence analysts the capability to quickly search for clues about emerging terrorist acts. The intelligence community believes it can find evidence of terrorist activities in open source foreign language publications. Rapid translation technologies will help intelligence analysts search a significant amount of material in a much shorter period than is possible today.

The research into data search and pattern recognition technologies is based on the idea that terrorist planning activities or a likely terrorist attack could be uncovered by searching for indications of terrorist activities in vast quantities of transaction data. Terrorists must engage in certain transactions to coordinate and conduct attacks against Americans, and these transactions form patterns that may be detectable. Initial thoughts are to connect these transactions (e.g., applications for passports, visas, work permits, and drivers' licenses; automotive rentals; and purchases of airline ticket and chemicals) with events, such as arrests or suspicious activities. For this research, the TIA project will use only data that is legally available and obtainable by the U.S. Government..

A major challenge to terrorist detection today is the inability to quickly search and correlate data from the many databases maintained legally by our intelligence, counterintelligence, and law enforcement agencies. The collaborative reasoning and decision-support technologies will help solve existing coordination problems by enabling analysts from one agency to effectively collaborate with analysts in other agencies.

Today, the full TIA prototype exists only as a vision. The project is in its first year of an anticipated 5-year research effort. During the first 36 months, a range of ideas will be developed via limited demonstrations and preliminary prototypes. During the final 24 months, the most promising research avenues will be extended to support production of a scalable leave-behind system prototype. If the project is successful, the Department of Homeland Security will consult with Congress to determine whether the TIA system should be implemented for domestic use. The DoD will consult with Congress on how to best implement the system for protection of U.S. forces overseas.

The DoD recognizes American citizens' concerns about privacy invasions. To ensure the TIA project will *not* violate the privacy of American citizens, the Department has safeguards in place. In addition, IAO will research and develop technologies to protect the system from internal abuses and external threats. The goal is to achieve a quantum leap in privacy technology to ensure data is protected and used only for lawful purposes.

Some individuals have questioned the role of the DoD and DARPA in this area. In its 44-year history, DARPA has undertaken numerous high-risk research efforts that led to significant capabilities. Many existing information technologies—including the Internet—started as advanced DARPA research projects. IAO follows a similar path of technical innovation with its research into advanced information capabilities that will give the United States a decisive edge in the global war on terrorism. All Americans share the frustration associated with vague warnings of terrorist threats. It is believed that IAO and its TIA project will help the U.S. Government reduce those generic reports to advance notice of specific threatening acts.