10-1-2013

S.H.O.T. DB (Statistics Help Officer Tactics) – Officer-Involved Shootings Database

Hasan Arslan
Dyson College of Arts and Sciences, Pace University

THINKFINITY FINAL REPORT

S.H.O.T. DB (Statistics Help Officer Tactics) – Officer-involved Shootings Database

The Provost's Grants for the *Thinkfinity* Initiative for Innovative Teaching, Technology and Research

CORNERSTONE III
Interdisciplinary Programs, including Informatics

Principal Investigator: *Hasan Arslan*, Ph.D., Dyson College of Arts and Sciences

This project attempts to consolidate information of officer-involved shootings all around the United States and to develop a comprehensive repository, which can be referred to time and again when required. The intent behind this project is to make this data available to law enforcement officials so that they can analyze this information and be better prepared to make the right judgment call during a hostile situation.

ORIGINAL GOALS
1) Aims to create and maintain a database system via interdisciplinary program between Dyson College of Arts and Sciences and Seidenberg School of Computer Science and Information Systems.

2) To compile nationwide police shootings from open source documents, mainly via Internet.

3) There were three phases in this project:

   1. Construction of the database entry function
   2. Data Collection (officer-involved shootings)
   3. Developing a management tool and query function within the DB

OUTCOMES
⊞ **Phase 1 is completed**
   ○ We are currently using MS Access database to house all the data. There are various forms, which facilitate the user to interact with the database. The user can either add new information to the database or query existing information from the database. The user can choose options *'New Source'* or *'Existing Source'* pages to add a new information source or view an existing source respectively. A *'source'* can be a newspaper, journal, book etc. The source page has information such as date the source was issued, source name, title etc.

○ The database is designed in such a way that each shooting is stored as an incident. All related information such as source, suspect, officers etc. can be viewed logically as belonging to a single incident. Any new information that is available about the same incident will be stored under that corresponding incident Id.
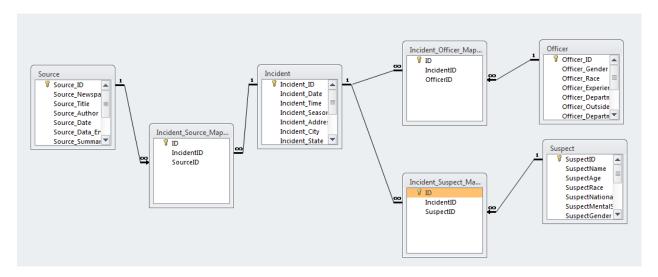
Enter Incident information

ID	124
Incident Date	Thursday, July 18, 2013
Incident Time	10:00:00 AM
Incident_Season	Spring (Mar-Apr-May)
Incident_Address	test
Incident_City	test
Incident_State	Alabama,AL
Incident_Zipcode	98987
Incident_No_Of_Officers	2
Incident_No_Of_Guns_Fired	2
Incident_Total_No_Of_Rounds	2
Incident_Location_Type	Residential

Continue

▦ **Phase 2 completed.**

○ Around thirteen hundred shooting incidents were collected from local news publications and media.

▦ **Phase 3 NOT completed.**

○ Further enhancements to this project can include a web based system for entering and querying information, providing a wider range of querying abilities, analysis tools such as graphs and pie charts and geo location and mapping capabilities.

○ The queries for searching the database based on source name, Id, title, location etc. is working; however, we could not able develop a management tool and not able to import all the collected data in the Excel sheets into the SHOT db.

○ One of the primary obstacles is finding additional funding to hire an expert I.T. technician for us to build the more complex nature of the management tool. This particular phase also requires more time to complete.

Next Steps

1. We intend to migrate to a more robust database such as MySQL.
2. We also intend to create and host a web application that will allow users to query from and add new information to the database. The MySQL database will serve as the backend for the web application.
3. Additional Funding request for continuance of the ongoing research.
4. Presentations at various Police Departments within the NY state to show the capability of the SHOT.
5. I work with Prof. Dan Farkas from Seidenberg School of Computer and Information Technology during this project. Dr. Farkas provided additional assistance on building the database and collection of the data. Two students (two graduate students) also were involved in this project and provided their skills in their available times to help us.
6. Dr. Farkas and I will be presenting our paper titled "Building a National Database for U.S. Police Shootings" at Academy of Criminal Justice Sciences (ACJS) annual meeting to be held February 18-22, 2014 at the Marriott Philadelphia Downtown Hotel. The paper is accepted.

Conclusion

The S.H.O.T database has a very important role in aggregating information about police shootings and criminal incidences in the United States. It has the potential of being a valuable resource to law enforcement to better understand the dynamics of an encounter and to have a historical reference of criminal activity. This information will undoubtedly help them serve the community better. With the help of Information Technology we can greatly ease the task of data entry, storage and retrieval and also make better use of the data by providing analysis capabilities. SHOT database makes critical information available at the click of a button.