Geo-Light, LLC

17027 37th Avenue NE
Lake Forest Park, WA 98155 USA
billleon@geoeducation.org
URL: www.geoeducation.org
Phone: 206/364-6660 or 206/914-6663

Geo-Light Database Systems

Using Data for Decisions
Shortening Data Access from Months to Minutes

For a short, animated look at how our systems work, please control/click <u>HERE</u>.

Background

Geo-light, LLC designs, develops and manages databases for program management and evaluation needs. The firm was formed in 2006 as a partnership between Geo Education & Research (an evaluation consulting firm in Seattle, managed by Bill Leon, Ph.D.) and Lightstone Data (a data management firm, managed by Philip Lightstone). It was started to provide much needed services to local, national, and international nonprofits, government agencies, foundations, and Tribes that need to use data for program management and reporting, without waiting for long and untimely periods to analyze and report on data. ***Our databases reduce data reporting time from months to minutes.***

Geo-Light recognizes the necessity for longitudinal data to inform ongoing programs or investigations so they can make timely course corrections and report data any time they have a need to do so. The Geo-Light systems also allow clients to compare the efficacy of different program models and still sum data across sites. Too often organizations get snapshots of their work or outcomes that end up in reports that are relegated to backs of file cabinets. Collecting data and being able to report on it in real time makes program managers at all levels more informed and more engaged in learning as their programs evolve.

Geo-Light took this approach because it believes that evaluation should be an ongoing process. It is very time consuming and expensive to do major data collection, analysis, and report writing. Geo-Light and Geo Education & Research provide this service too. One may get more in-depth analysis from it, but organizations benefit from shorter-term data views as well. The Geo-Light systems allow organizations to maintain ongoing data collection and to use the data frequently for program monitoring as well as for reporting. Programs can see trends over time, compare trends and outcomes for different demographic groups or sites, or (when permitted) drill down to data on individual clients. Geo-Light clients and users at all levels (program staff in different agencies or those higher up in the organization) actually use the data collected and use it more often.

Database Description

The key to Geo-Light's success has been the merging of evaluation and data management services so that clients get the help they need. Here is a short list of benefits to be derived by engaging Geo-Light in data management for this project.

1. Clients understand what is important to measure (especially outcomes and the kinds of data that help them see what is leading to or inhibiting success as they define it).

2. Clients know how to measure outcomes or get the support they need to collect data in professionally appropriate ways (using well-constructed data collection and data entry forms and processes).

3. Those who collect and/or enter data can do it securely, simply, and efficiently from anywhere with internet access, using custom-designed data entry forms. Users can enter data in the field on laptops, tablets or even phones. The design makes access to data and data entry fast and easy. Entering or updating data takes little time, and customizable, dropdown selections make data entry consistent, leading to fewer errors and less time spent correcting data entry. Key items are highlighted if missed, leading to more complete data entry.

4. Those who need to review, analyze, and use the data can do so quickly and easily from anywhere with internet access by clicking on custom-designed reports that display tables and charts for any key reporting requirements clients need (including ones showing who is or is not entering data as expected). The reports can be exported in different formats including PDF, MS Word, MHTML, Excel, CSV, and XML so they can be used in publications, put on websites, or easily shared with others in an email. The reports can be tailored in seconds to include or exclude data as desired (e.g., to sum up across all sites implementing a program or focus on one or two; to show data for a certain date range; to breakdown data by demographics; or all of these and more combined).

5. Those who need to perform more detailed data analysis can easily extract the data for further analysis.

6. Primary users of the system can delegate access to the system to partners (e.g., organizations they fund or with whom they partner) who can then assign access to their own staff, sharing the access management decisions across many sites without risk to other sites. Sites can only see their own data, but the primary client can see and sum data across sites. Different types of partners can enter the same or other kinds of information, and their data can be reported separately or combined with the test communities.

7. Any number of people can use the system simultaneously at no extra cost.

8. The systems are custom-designed and include training, support, and upgrades for a modest annual fee.

9. The systems can start small (in terms of the numbers of data entry forms and reports) and can be expanded later as needs and funding changes. When a new funder requests different data or

reports, the online forms and reports can be changed or new ones can be easily added at reasonable cost. The numbers of users or the numbers of sites or clients has no impact on costs.

10. When a database system is developed simultaneously with the evaluation methods and tools, organizations have more integrated processes and cheaper ways of collecting, storing, analyzing, and reporting on relevant data and save both time and costs.

Nobody goes to work for any organization to spend all their time entering data. The database design takes into account the effort it will take for the different agencies to collect and input the data and the training necessary so that the data collected are meaningful and accurate. Geo and Geo-Light use a collaborative, community development model in working with clients as partners in the evaluation and data management processes to resolve any design or use issues that might impact the data collection and use processes. We have extensive experience working through common barriers like the double entry of data, privacy laws, and data sharing needs.

Geo-Light's clients include such organizations as the International Criminal Court of The Hague (ICC), National Safe Place (NSP) and the City of Tacoma (COT). NSP works in over 40 states with close to 150 local agencies that provide services for at-risk and homeless teenagers. Its system is what we call an umbrella model that asks all users allied with a primary client to enter their data into the same online forms. While these different agencies can see all of their information and report on it, they see no other agency's data. NSP, however, can see all of the data and can run comparisons and summaries in minutes with the reports that come with the system. Geo-Light has found that users of its systems take little time to enter their data each month. It is important to balance and pair what an organization wants to measure with a data management system that is simple, well-designed, accurate, secure, flexible, and cost-effective. The Geo-Light systems meet these criteria.

Geo-Light also realizes that it is always harder to demand that partners enter data into a black-hole. They too should be able to run reports that inform them on how they are performing. Once they recognize that they can use, learn from, and report on the data they enter, they will be more willing to spend the time to do so. Also, if the process is intuitive, then training is a secondary concern. For NSP we haven't held training in quite a few years. They simply have not found it necessary to spend their time and money on this. All of our systems come complete with manuals attached so that individual questions can be researched and answered without our help. Regardless, we are available for any training and ongoing assistance, and we stay in touch with primary managers of each system so we can make sure everything is running smoothly.

The systems are completely custom-built so they include only the features that are necessary and requested. This keeps costs down and makes them easier to use. The costs for managing the systems are not impacted by the numbers of users, so Geo-Light does not charge per user. The login of each user determines her/his permissions and rights, and that makes it easy to direct her/him to the forms and reports she/he can use. If the user belongs to Group 1, she/he will see those things she/he is responsible for while the same thing is true for Group 2. Users will not see things that are not of their concern (e.g. editing the dropdown menus usually is restricted to a single person, but all decisions like these can be adjusted to the needs of the client).

Geo-Light strives to deliver systems that are intuitive; that demand minimal time for training, data entry, or reporting from the different users; and that provide timely insights for organizations served at all levels. Its systems are encrypted for greater security. They can be used as document management systems. They can be designed to upload data from spreadsheets to avoid double-entry of data or to capture historical data already collected in other ways. The systems report on the things agencies want to see as determined by them in a matter of seconds using SQL Server Reporting Service (an industry standard). The data storage system is Microsoft's SQL Server. The data collected always remain the property of the client and will be turned over to the client if the system is no longer needed.

For a short, animated look at how our systems work, please control/click HERE.

If you have any questions about our systems and how they may work for your programs or if want to see a test one in a live, online demonstration, please call or email us.

Summary of Common Database Features

1. Internet based (a secure, encrypted connection between computers and the database)
   - Accessible from anywhere with an internet connection.
   - User must supply login credentials that are managed locally by administrators of each participating program.
   - Several levels of users are possible to make data available only to those authorized to enter and/or see it.

2. A completely custom-built system
   - Specifications are determined by the client (including easy changes to inputs and outputs).
   - Interfaces can be in multiple languages (at extra cost).
   - Guidance provided to ensure that the data collected and the way they are analyzed and displayed meet professional standards in evaluation, database functionality, and web design.
   - Tools to allow project site administrators to manage functions like adding new users or adding new drop-down box selections.

3. A front-end website using forms that allow the user to enter, edit, or delete information on a phone, tablet, laptop, desktop, or other device with information on the screen scaled to size
   - Usually 10-15 data entry forms with input error-checking to make sure data collected adhere to expected input (e.g., a number field has a number entered).
   - Simple layout to make it easy to navigate among functions.
   - Ability to search for records as needed (e.g., to see if a new client is already entered).
   - Data grouped as needed to show what is meaningful to the user or to speed data entry.
   - Ability to conduct surveys with quantitative and/or qualitative inputs.

4. Reports (usually 10-15) hosted on a report server using SQL Server Reporting Service technology
   - All reports can have parameters to filter the results (e.g., by time, demographics, and/or geography).
   - All reports can be automatically set to show results for an individual site or a group of sites (with access determined by the logged-in user's credentials and rights).
   - Ability to easily download tables and charts into CSV (comma delimited); PDF; MHTML (web archive); Excel; TIFF File; or Word.
   - One of the reports will export data for more thorough analysis in standard statistical programs

5. A back-end database hosted on a server with state-of-the-art security

6. Backup of data to the Cloud on a weekly or otherwise determined basis

7. All components are integrated into a user-friendly package with an online and downloadable user manual

8. Hosting of the database for an affordable annual fee with no "per-user" costs

9. Other services by Geo Education & Research and Geo-Light
   - We can be a consulting partner on the professional evaluation system up-front so that the data collected are the most appropriate for your organization's management and evaluation needs (including those of staff, funders, clients, and other stakeholders).
   - We can develop recorded video trainings to assist with the training of new users.
   - We can add the ability to import and export data in several formats (to reduce double-entry of data into multiple systems or to more thoroughly analyze data in other programs).
   - We can add the capability of the system to store and manage documents (e.g., program plans that need to be shared or reviewed).

10. Ongoing technical support (after system is built, tested and approved) at reasonable rates
    - We can add new data collection forms or reports as needed later to reduce up-front costs or to expand your system as your organization adds new programs.
    - Basic functions and support (e.g., backups of data, troubleshooting any problems) are covered in the user agreement, which includes 8 hours of upgrade work, such as new forms or reports.