Exponent®
Engineering & Scientific Consulting

Martin Glomski

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Professional Profile

Mr. Glomski has 12 years of consulting experience in the health sciences, data science, and business consulting. As a data scientist, Mr. Glomski provides data management, data analytics, and software development services, and frequently holds primary responsibility for design, development, deployment, and maintenance of project-related databases, computer tools, and websites.

These computer tools leverage the capabilities of different platforms such as multi-user databases utilizing postgreSQL, Microsoft® Access, and SQL Server rdbm systems, custom user interfaces built in Microsoft® Office applications such as Excel and Access, custom websites and SharePoint sites, and coding implemented in Python, SQL, VBA, and R. He has experience implementing solutions in both proprietary (Windows, Macintosh) and open source environments (Linux, FreeBSD).

As a consultant in the health sciences, Mr. Glomski has 12 years of experience with human health-risk related issues including human health risk assessments and Proposition 65 related risk assessments, with a primary focus on issues surrounding asbestos exposure and related risk. An additional important part of Mr. Glomski's health related work was generating QSAR toxicological analysis deliverables.

For 10 years, Mr. Glomski has supported the design and development of a health and safety-related information management system in a large corporate environment and has supported the associated workforce training efforts. Recently, Mr. Glomski developed and deployed a data-driven computer tool supporting project financial management and was an integral member of a team developing a suite of software tools facilitating engineering analysis workflows for a utility sector client.

Academic Credentials & Professional Honors

B.A., Political Science, University of Chicago, 1991

Professional Affiliations

American Industrial Hygiene Association (Affiliate Member)

Society for Risk Analysis (Member)

Publications

Posson M, Bogen K, Glomski M, Sheehan P. A suite of integrated predictive models for the evaluation of consumer exposures to organic chemicals in paper products. SETAC North America 36th Annual Meeting, Salt Lake City, UT, November 2015.

Sheehan P, Lowney Y, Kalmes R, Bogen K, Posson M, Glomski M, Singhal A, Volberg V, Beckerman B, Goswami E. Assessing user exposure to consumer products: methods specific to product use and exposure route to assess consumer health risks. SETAC North America 36th Annual Meeting, Salt Lake City, UT, November 2015.

Sheehan P, Bogen K, Posson M, Singhal A, Glomski M, Hellerstein J. Assessing anthraquinone (AQ) exposure from food packaging: a product stewardship challenge in Europe. American Industrial Hygiene Conference and Expo, San Antonio, TX, May 31-June 5, 2014.

Posson M, Bogen KT, Glomski M, Sheehan P. Organic chemical exposure and dose from paper products: A new suite of integrated predictive models. Annual Meeting of the Society of Toxicology (SOT), Phoenix, AZ, March 2014.

Project Experience

Computer Tools, Databases & Websites

Mr. Glomski was one of a four-person team which designed, developed, and deployed a suite of tools designed to facilitate client-defined engineering workflows. The set of tools facilitated the distributed collection of current and historical engineering data, detailed analysis of those data, reporting and data-extraction services, and workflow support and coordination. The suite of tools was built utilizing the capabilities of a number of platforms including Excel, SharePoint, and Access. The suite of tools was placed into production with the client and is used daily by a team of 15 people while under continuous improvement. Revisions and new capabilities were made in response to user feedback and new business requirements.

Developed an Excel-based tool that generates quantitative predictions of chemical migration from paper-products to foods, coupled with calculations for projected doses of those chemicals given different product-use scenarios. The tool allows the user to specify default or user-supplied food, chemical, and usage/consumption parameters. The tool contains implementations of a suite of predictive models that quantitatively estimate the amount of chemical migration to food. Output of the tool consists of stand-alone spreadsheets summarizing input variables and output calculations, as well as dynamic sections that allow the user to easily perform “what-if” calculations based on the specified scenarios.

Responsible for a previously-developed database containing soil and soil gas sample data used for a human health risk assessment at a Superfund site. The database was developed over several years at another consulting firm and Exponent was retained to update it and its associated HHRA. Mr. Glomski was responsible for analyzing and assessing the condition database and its data, determining its proper use, integrating new data, and updating relevant analyses.

Created an Excel-based front-end for the capture, analysis, and reporting of project budget data. Starting with project data extracted from supplied SAP and Primavera reports, the tool supports the combined workflows of business analysts and project managers with the generation of custom project dashboard reports as the final deliverable. The tool is used during a monthly analysis and reporting cycle by a 10-member internal team to provide oversite to a large number of on-going projects.

Maintained and improved a desktop-based custom-built data management application used for tracking, analyzing and reporting maintenance information for utility sites across a western state. Information included site condition assessments, maintenance records, site and equipment photos, and associated employee and contractor work records.

Mr. Glomski was part of a team designing, developing, and deploying several multi-user data-capture applications within a large multinational corporation. Using web-based graphical user interface (GUI), the applications facilitated data capture from facilities across the globe and provided standardized reporting capabilities to the business. Design requirements and specifications were determined collaboratively with the client, and following initial success of the application, additional features were developed and implemented at the request of the client. Mr. Glomski provided training for the application to the client's user-base, both for general users and for application administrators.

Designed, developed, deployed, and maintained several literature databases with complimentary data-driven websites. Websites are securely accessible by clients and provide both metadata- and text-searching capabilities. The largest database contains over 10,000 academic and research documents spanning 150 years.

Designed, developed, and deployed a customized scheduling application for a large multinational corporation. The application automated the collection and reporting of performance metrics using data supplied by users located globally. The tool replaced a manual system in which the users supplied the data to office administrators who then manually updated a central data store.

Created database to monitor and analyze budget items for an $8 million/year project for a safety-training project at a multinational corporation, tracking expenditures in over 100 countries. Also created and maintained a personnel-tracking database detailing training records for a workforce of approximately 50,000 employees and contractors.

Organized and managed document collection and cataloging for databases, identified literature for initial population of the databases and conduct on-going searches for new literature. Sources include academic research literature, government documents, litigation documents, images, video, and audio files.

Created a database for the facilitation of creating, maintaining, and updating of a suite of forms required by the client to be maintained in 11 different languages. The database served as a centralized tool for the collection of translated text and then automatically updated the forms to reflect the most current translated versions. The database also facilitated version control and tracking of performance metrics. The client's requirements for the tool included support for non-Latin alphabet languages (e.g., Arabic, Chinese (Simplified and Traditional), Khmer, Urdu, Vietnamese, etc.).

Created database to compile and analyze internal corporate documents (memoranda, correspondence, internal studies, etc.) for a group of companies facing similar litigation.

Created database to record compilation and analysis of 100 years of historical product literature regarding boiler equipment.

Created database to identify, analyze, and create reports related to exposure data from 200,000-page litigation production document set. Document set included 50 years of internal company documents, memoranda, and correspondence, as well as government and third party reports. Implemented the capability to cross-reference data and documents in the database with records from multiple other production document sets from both sides of the litigation.

Directed development of a collaborative website for project team members. The website provides a centralized communication venue for project resources and documentation, personal and project schedules, direct communication, FAQs, and organizational details.

Created database to compile and analyze exposure data from multiple internal and government monitoring reports regarding asbestos pipe-wrap.

Created database to track, organize, and ultimately produce reliance documents for multiple expert reports related to large-scale potential-exposure litigation.

Created databases to analyze and generate reports from over 500,000 water-contaminant samples and 200,000 sediment-contaminant samples.

Created database to recreate historical airborne asbestos exposure estimates covering a 50-year period at a mining facility by linking a Job Exposure Matrix (JEM) to individual personnel records.

Heath Sciences, Business Consulting, and Other Consulting

Participated as a member of a client's internal team rolling out a large-scale web application intended for the company-wide collection of risk management data. Mr. Glomski worked as an integrated team member for eighteen months during the rollout supporting application testing, developing training materials, hosting training events, and defining processes and procedures to integrate the application into existing company procedures. Mr. Glomski led a sub-team on the project identifying and addressing potential problem areas with the new procedures as they applied to areas without sufficient network connectivity, language barriers, and support for non-Latin alphabet languages (e.g., Arabic, Chinese (Simplified and Traditional), Khmer, Urdu, Vietnamese, etc.).

Participated on a team that measured and analyzed dust generation from the use of asbestos-containing joint compound. Mr. Glomski participated on the team that recreated the joint compound using production notes from the original manufacturer; he also participated on the team that constructed, tested, and refined a bench-scale test chamber that was used for measuring dust emissions during work practice simulations.

Participated as a member of a client's internal team focused in improving usability of a large-scale IT tool. A company-wide usability assessment was performed which included defining metrics, soliciting and collecting user feedback, and identifying shortcomings and areas in need of improvement/revisions. Identified issues were analyzed and prioritized for potential solutions/improvements. Recommendations and proposed timelines were presented to stakeholders; and after vetting, improvement plans were created. Follow-up steps included creation of communication plans, assessment, and vetting of improvements, and the creation of training materials for revised features and newly-deployed capabilities.

On a litigation project, supervised a team of six people capturing analytical data regarding possible hazardous waste generated at a biomass energy facility. Subsequently performed data management and data analyses in conjunction with reports addressing whether waste produced at the facility should be considered hazardous under state or federal regulations.

Authored research binders detailing historical asbestos state-of-the-art regarding health effects and government guidance and regulation.

Used military and historical document archives to supplement analyses of industrial hygiene surveys performed at U.S. military facilities. Information extracted from these sources included historical IH surveys, waste disposal records, and historical photos illustrating working- and building-conditions.

Participated in an experiment involving the reformulation and assessment in a laboratory of an asbestos-containing consumer product.

Compiled and analyzed patient lung function and blood tests from medical records produced for litigation related to an incident of phosgene exposure.