

Statistical Software for Solving Business Problems

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SPSS is one of the world's leading providers of statistical software. As chief statistician, my job blends statistics and computing. I lead a group of statisticians and software engineers who design tools and applications for customers who apply statistics in varied settings. We place special emphasis on helping our customers solve business problems.

Many business users of SPSS software are concerned with predicting the right product or the right offer for each of their customers: What kinds of people are the most profitable customers? At what kinds of people should we aim a new advertising campaign? How can we retain more of our current customers? Other business problems have an engineering flavor: Which parts in a complex product failmost often in use? Is it more economical to repair or replace a failed part? These business problems translate into statistical problems concerning what data to collect and what statistical models to apply.

Good software can help users obtain business insight in a timely fashion. One of the biggest challenges today in software development is handling model building for very large data sets. Think, for example, of the enormous volume of data produced by the checkout scanners of a national retail chain. We look at several approaches to this problem, such as developing efficient algorithms for large-scale computation, dividing the data into subsets for analysis, and integrating analysis algorithms into the data base software. As a statistician, I work with software engineers to develop a robust system to handle large quantities of data more efficiently.

Since joining SPSS 17 years ago, I've found myself more fulfilled by my work as my experience has grown. As I've studied statistics, I've always had an interest in how statistics can benefit our society. Seeing software that I have helped develop solve the business problems of our customers brings the feeling of satisfaction that comes with knowing that a job is well done.