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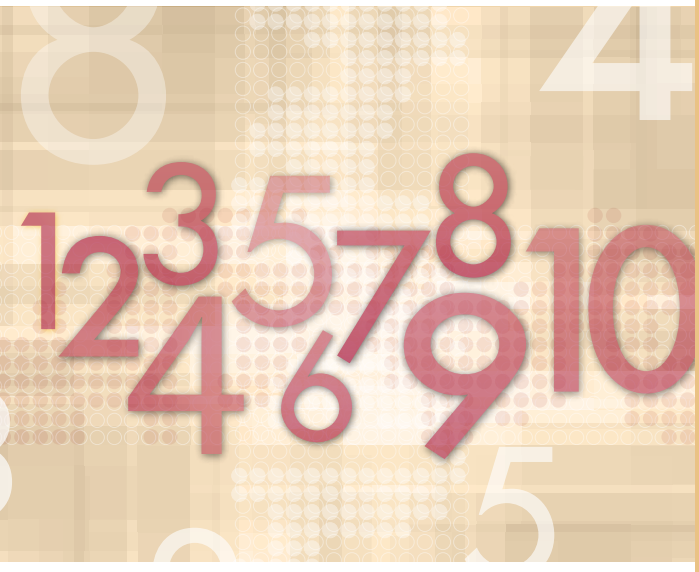
TEN MISTAKES TO AVOID

In Predictive Analytics

By Thomas A. Rathburn



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FOREWORD

Predictive analytics is the goal-driven analysis of large data sets. Modern organizations use large data warehousing environments to retain valuable information. The complexity of an environment is a function of the number of fields available for a particular individual or objective, not the number of records.

Successfully enhancing the decision process requires more than sophisticated analytical techniques. Data mining calls for new ways of conceptualizing and implementing business intelligence (BI) projects, as it is essentially an information discovery process.

A predictive analytics model is a surrogate for a human decision process within an organization. The goal of the model is to target an organization's resources for changes that enhance business objectives.

The models developed achieve measurable levels of performance that can be compared to existing baseline performance through the organization's business metrics. This article presents 10 common mistakes organizations make when undertaking predictive analytics projects.

ABOUT THE AUTHOR

Thomas A. "Tony" Rathburn has guided commercial and government clients internationally in the implementation of predictive analytics solutions since the mid-1980s. As a senior consultant with The Modeling Agency, Tony delivers custom workshops and collaborates on a wide range of assignments. He is a regular presenter in the predictive analytics track at TDWI World Conferences, and hosts a popular Webinar: "Data Mining: Failure to Launch." Contact him at tony@the-modeling-agency.com.

MISTAKE ONE:
FAILURE TO BE DRIVEN BY RETURN ON INVESTMENT

A predictive analytics project is an investment of time, energy, and resources in the development of a mathematical model used for making decisions about allocating organizational resources in a particular functional area.

Far too many organizations undertake development work as a research effort without a clear understanding of how the project will benefit the organization. There are few other areas of operations where such expenditures would be permitted.

It is not uncommon for large organizations to allocate tens of thousands to millions of dollars on a predictive analytics project. Project opportunities should be evaluated and prioritized based on their expected returns.

Strong arguments can be made for low-risk and high-return-on-investment (ROI) projects. However, many organizations commit resources at a level that makes high ROI virtually impossible, or they develop project designs that are relatively high risk.

Solid predictive analytics opportunities can be identified in many functional areas. They are exemplified by a well-defined business decision process, where a relatively small enhancement offers significant financial benefit.

Most organizations find that they are better served by a larger number of predictive analytics projects, where each project has a smaller scope, can be completed in less time, and requires a smaller investment. Prime opportunities for predictive analytics projects are in areas where the decision process is well understood and being performed by multiple individuals within an organization.

Many businesses find that there are several good ways of making decisions, and the domain experts in their organizations are already making decisions in a way that is successful.

Initial predictive analytics projects often achieve high ROI by synthesizing the multiple decisions being performed by these domain experts, and by developing a single best-practices model.

These projects are easy for the organization to evaluate because they involve well-understood decisions within the organization. The business objectives are generally well developed. Access to the required data is defined.

Beginning with such projects offers an organization the opportunity to explore predictive analytics in a business environment where the technology can be applied and evaluated based on well-defined business objectives. It is not uncommon for organizations to achieve an ROI of 1,000 percent or higher on these types of projects.

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