

Key Points:

- Analytic applications can improve the consistency and quality of decision-making throughout an organization – enabling decisions that are based on quantified costs, benefits, and risks, rather than pure instinct.
- Read more about ASR's point of view on Analytic Applications in one of our feature articles from DM Review magazine:

http://www.dmreview.com/article_sub.cfm?articleId=1023895

Sound Bites:

- “Analytic applications can accelerate time to value for both developers and end users, with pre-built ETL connectivity and business-focused workflows and other analytic functionality geared for the business side.” (TDWI)
- “Current trends point to a continued adoption of analytic applications. Already, there are signs that analytic applications are taking on an increasingly strategic role as organizations continue to be inundated with larger data volumes.” (KM World)
- “Advanced analytics tools will become more relevant in an organization's daily operations as the opportunity to embed such tools into analytic applications increases.” (IDC)



ASR Analytics LLC

Using advanced analytic applications to improve decision management.

Using Analytic Applications to Improve Decision Management

Analytic Applications have been defined as, “domain-specific solutions that enable all types of business users to access, analyze, and act on information in the context of the business processes and tasks they manage.” By combining domain knowledge and methodological rigor in the context of a repeatable business process, Analytic Applications can drive step-change improvements in the speed, quality, and cohesiveness of business decisions – with equally impressive returns on investment.

To be effective, Analytic Applications should target a specific business function, they should facilitate both strategic and tactical decision making, and they should be embedded within the business processes of an organization. ASR's solutions are designed with these principles in mind. We help our clients identify business functions that can benefit from the use of analytics, we build customized solutions to meet those needs, and we provide training and other services to maximize the value of process improvements.

The bottom line, of course, is the bottom line – and the evidence to date suggests that decision-oriented analytic applications offer a superior return on investment, compared with their non-decision-oriented counterparts. A recent study conducted by IDC, based on case studies of 40 analytic projects, found that those involving predictive analytics offered a median ROI of 145%, compared with 89% for their non-predictive counterparts. IDC attributed the superior ROI of predictive analytics to enhanced operational processes, enabled through improved decision-making.

Services and Solutions

Data Visualization. Historically, the core functionality of Analytic Applications has centered on Data Visualization – the tabular and graphical display of data generated through on-line analytic processing (OLAP). ASR pushes the boundary of these tools through the use of advanced visualization features, including real-time tabulation, drill-down analysis, and advanced mapping capabilities.

User Alert Systems. A logical extension of OLAP, user alert systems were designed to produce exception reports, typically containing a list of all unusual or outlier cases. ASR extends this idea through its “closed loop” applications, which notify specific users (or take some other customized action) when a pre-defined tolerance is violated – such as a financial transaction that exceeds an established threshold, or an unacceptably high failure rate for a product.

Simulation Models. Simulation modeling is a technique used to forecast the behavior of a system when it is subjected to a hypothetical, user-defined treatment. Simulation models operate by applying mathematical algorithms to simulate various behaviors and outcomes of the system. By comparing these outcomes under a variety of treatments, users can assess the impact of various “what if” scenarios.

Optimization Models. Optimization models are used to solve complex problems in which multiple factors can be combined in different ways to influence an outcome, subject to a set of constraints. These models operate by finding the set of variable values that maximize the user-defined objective function, while satisfying all of the specified constraints.

Success Stories

State of Maryland, Department of Health and Mental Hygiene: Using the SAS v9 Business Intelligence Platform, ASR developed a web portal to enable OLAP analysis of public health data from a consortium of state-level statistical agencies. The solution developed by ASR provides users with a web-based capability to create and report on multi-dimensional databases, including the ability to run queries, slice and dice data by applying filters, drill up or down through hierarchies, and conduct both distributional and time-series analysis of public health information.

Department of Defense, Uniformed Services University of the Health Sciences (USUHS): ASR developed a customized SAS-based software application for USUHS to facilitate data visualization, statistical analysis, and predictive modeling of USUHS data assets—including information on enrollment, retention, and alumni career outcomes. These tools are help-

ing USUHS—one of the largest medical schools in the United States—to quantify the professional accomplishments of its graduates, determine whether there are predictive relationships between student characteristics and career accomplishments, and compare the career accomplishments of USUHS graduates with their non-USUHS peers.

North Harris Montgomery Community College (NHMCC): Using the SAS v9 Business Intelligence Platform, ASR Analytics created a suite of data management and analysis tools, for use by a consortium of community colleges in the Houston, TX area. The data and tools developed by ASR allow NHMCC to surface information via a secure web portal, using a role based security model. All users interact with the same OLAP cubes, with each college maintaining control over its own reporting. District Executives are able to aggregate and disaggregate by College, while colleges are only able to see appropriate reports based on the permissions set at the District level.

For More Information

To learn more about the customized Analytic Applications developed by ASR, or to request a demonstration, please contact us by call, email, or visit us on the web:

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ASR Analytics LLC (ASR) provides high-end analytic consulting services to clients in the public and private sectors. ASR has deep expertise in the fields of business intelligence, predictive modeling, and data mining – and in the design and development of customized technology tools that support forecasting, simulation analysis, optimization modeling, and data visualization.