



## Data Visualization: Giving Form and Content to the (Almost) Ineffable

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By Stephen Swoyer

When he's unable to convey the inexplicable content of his consciousness, a character in a T.S. Eliot poem speaks of projecting his thoughts in patterns on a screen. The idea is that a picture is worth a thousand (sometimes many more) words. It's a cliché, and one that many BI analysts are now taking to heart, thanks to the use of data visualization technologies that help give form and content to the almost ineffable.

Think of an agglomeration of data, any agglomeration of data. In fact, think of a non-BI example—like network security. Imagine an organization that captures all of the packets flowing across its enterprise networks. That's a lot of data. It's so much data, in fact, that even if you throw all of the analytics in the world at it, you'll almost certainly be left with an enormous amount of information.

Data visualization technologies propose to take a short-cut of sorts. Consider an intrusion detection system (IDS) that parses the logs of not one but two network ecosystems, one outside of a firewall and the other inside. A number of vendors ship security solutions or IDS technologies that can cross-correlate this data, overlay the results on screen, and provide a visual representation of anomalies between the two network ecosystems. In this respect, then, anomalies should leap straight out at the security strategist—instead of remaining hidden (or only barely hinted at) in the text of a conventional report.

It stands to reason that what works wonders for network security could—at the very least—enhance enterprise reporting. For this reason, says Doug Cogswell, CEO of Advizor Solutions Inc., data visualization will emerge as a complement to, or extension of, an organization's bread and butter reporting tools. "We position it as advanced reporting and analysis," he comments. "It's not something that's going to replace [reporting tools]. In fact, we're actually working with these [reporting tools], but we add value to Business Objects, we add value to Teradata, because we offer [users] a new view or insight into this data."

Advizor got its start six years ago, as a spin-off of Lucent Bell Labs. After an early stint as a Web analytics specialist, the company settled into its bread-and-butter business intelligence niche. These days, Advizor has technology partnerships with Business Objects SA and NCR Corp.'s Teradata division. Its data visualization technology is currently OEM-ed by several companies, including Business Objects and Information Builders Inc., as well as by enterprise security specialists Intellitactics and ArcSight.

In the BI space, at least, Advizor typically addresses two requirements, says Cogswell. “We’re typically selling into one of two product sets. In the first, something’s put into a BI system and generally the output is lots of reports, which consist of a lot of data that it’s hard to make sense of. So we’re typically used by the business analysts there,” he comments. “Another example of the problem we’re solving is somebody that’s trying to understand how to display information for management. With our visualization technology, we help provide a highly effective display of information that’s instantly clear to executives.”

Last week, Advizor announced version 5.0 of its eponymous flagship product. Like its predecessors, the new release is based on the company’s bread-and-butter Visual Discovery visualization technology, but also bundles new descriptive and predictive analytic capabilities, licensed from KXEN, a French provider of OLAP and analytics technology. The revamped ADVIZOR introduces additional chart support—including heat map, tree map, and summary sheet charting features—along with improved administration and control (particularly with respect to data security, filtering, calculation and navigation); and enhanced data integration features. “We’ve got 14 different chart types, and they’re designed to work in an environment that’s all point-and-click,” Cogswell explains. “Our charts are active query tools. Most charts display things they’ve been presented with. Our charts actually change the data state underneath.”

But the descriptive and predictive analytic capabilities, more than anything else, help to set ADVIZOR 5.0 apart from competitive offerings. They help flesh out ADVIZOR’s own data visualization expertise—which helps reveal existing trends, patterns, relationships, or anomalies buried in an aggregate body of data—with predictive probabilistic and trend analysis features. “There’s a huge information overload out there. There’s really a need for these [descriptive and predictive analytic] capabilities to help [users] make sense of it all,” he indicates. There’s a kind of synergy between ADVIZOR’s own GUI-based query environment and KXEN’s analytic tools, too, Cogswell claims. “[KXEN has] this whole point-and-click philosophy that is very similar to ours, so [users] don’t even have to select an algorithm” to use the descriptive or predictive analytic capabilities.

ADVIZOR is available in three versions—an End User edition (which offers limited support for programming or customization); an Analyst Edition (which offers scripting and some programmatic support); and a full-blown Developer Edition, which features an open SDK API toolkit. ADVIZOR’s results are typically displayed in a dashboard interface, but users can export results to SQL data stores, Microsoft Excel, Microsoft PowerPoint, or as static HTML to a Web site.

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