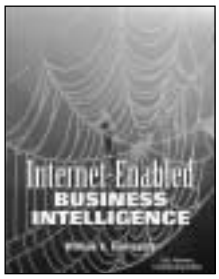

Internet-Enabled Business Intelligence
William A. Giovinazzo
Upper Saddle River, NJ: Prentice Hall PTR, 2002
368 pages, $49.99
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Tackling two broad topics—the Internet and business intelligence (BI)—the back cover of this ambitious book promises to discuss "…every enabling technology, every analysis approach, and every key challenge faced in linking business intelligence to the Web." Such hyperbole sets a dangerously high bar and will cause some readers to be disappointed. Purchased with a grain of salt, however, *Internet-Enabled Business Intelligence* provides important preparation for traditional client-server IT personnel facing a large-scale BI project, particularly one involving Oracle 9i products.

The book complements Giovinazzo's earlier *Object-Oriented Data Warehouse Design:A Star Schema.* The latter focused on multidimensional data modeling, while *Internet-Enabled Business Intelligence* argues for the widespread dissemination of data in a warehouse, describes how it can be physically distributed via the Internet, and elaborates on certain applications fed by—or which feed—this repository.

The argument for widely distributed information hinges on the number of decision makers whose actions influence each other in today's interconnected enterprises. Choices made by customers, executives, line managers, and vendors all weigh increasingly on any single company's profits. Ensuring that stakeholders make mutually beneficial decisions is partially a function of far-reaching BI applications. "The Internet has changed the organization, turning an entity bound by four walls into a single virtual organization that spans value chains. This…has transformed BI into IEBI."

Two applications presented early in the book are activity-based costing and balanced scorecard systems. I found these inclusions to be good topical choices, having recently completed a series of customer profitability data marts and participated in a well-attended Business Process Management seminar. Underlying concepts and considerations were presented in a concise manner with helpful examples. This was particularly true with regard to activity-based costing, where graphics were effectively used to explain how analysts allocate direct and indirect expenses to processes, and processes to products or services. Management uses this knowledge to, for example, align low revenue customers with low-cost support services.

Attention is also given to clickstream analysis and Web site personalization. These customer-centric applications, found in later chapters, highlight how

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investments in analytics return dividends to an organization. The chapter on personalization touches on an increasingly important subset of BI: data mining. Useful contrasts are made between techniques such as collaborative filtering, CHAID (Chi-square Automatic Interaction Detector), and CART (Classification and Regression Trees). Oddly, there is no mention of the algorithms powering Oracle 9i Application Server's Personalization option (Transactional Naïve Bayes and Predictive Association Rules). This is surprising since the chapter twice tells us that it examines this app server module, yet no review can be found.

Unfortunately, focus is not always a strong point throughout the book. The author forewarns, "We will go down paths that seem tangential, or make references that are somewhat wild." The depth of this habit is hinted at in the glossary, which defines Cerebral Cortex and Central Nervous System, but lacks an entry for Application Server, despite a chapter entitled Servers: The Heart of IEBI.

Positive reviews on Amazon.com suggest that these excursions are not a problem for some readers, but the approach can be distracting. More importantly, the detours sacrifice space that could have been used to fill serious gaps in the book. Giovinazzo's most glaring fault is his lack of any reference to Microsoft technologies or standards, such as .NET. This is a real disservice to MS-based developers and small to medium-sized organizations that support IEBI in theory, but are unable to implement it using Java, Oracle's 9i Application Server, or BI beans (whose strengths are demonstrated, incidentally, in the March/April 2003 issue of *Oracle Magazine*).

Separate surveys published in 2002 by Evans Data Corporation and BZ Research forecasted a 2003 IT community evenly split between .NET and J2EE. Given this, the book ignores a large percentage of developers who would benefit from a brief introduction to Microsoft's Data Warehousing Framework, BizTalk Server, and other IEBI-enabling technologies that compete with the limited ones presented.

Despite its flaws, *Internet-Enabled Business Intelligence* ultimately deserves your attention because of its unique discussion of BI drivers—of interest to those thrust into this specialty—together with a detailed review of relevant Internet plumbing and software—of interest to BI professionals seeking to catch up with the 21st century. Fifty-five pages of the paperback

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supply a convenient review of Internet protocols and servers, such as Oracle's 9i Application Server. An understanding of net protocols is obviously vital to anyone involved in architecting an enterprise-wide system today. Though never quite explained, it seems reasonable to assume that Oracle's products are spotlighted due to their breadth, J2EE-compliance, and the degree to which BI tools are embedded in them. Almost one hundred pages are dedicated to Internet software standards spanning Java, XML, and the Common Warehouse Metadata Interchange.

Though uneven, *Internet-Enabled Business Intelligence* is comprehensive enough to provide something of interest to anyone not already experienced with enterprise-wide BI engagements.

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