Book Review: Success with Electronic Business: Design, Architecture and Technology of Electronic Business Systems

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[Review of *Success with Electronic Business: Design, Architecture and Technology of Electronic Business Systems*, Berthold Daum and Markus Scheller, Addison Wesley, 2000.]

In the realm of Ecommerce, up-to-date comprehensive books that tackle business drivers as well as enabling technology issues are hard to find. Whoever puts together a coherent business/technology picture that gives some insight and possibly a few eurekas to IT managers, developers and business analysts wins the race, at least for a while. There are of course many books about individual technologies (HTML, Java, etc.). Other books, many shallow and half-baked in my opinion, attempt to explain the history and meaning and potential of Ecommerce. Success with Electronic Business does a creditable job of addressing some important technology topics, but promises more than it delivers in the crucial area of process integration.

Part 2 ("New thinking for new challenges") has the ring of truth when it comes to transaction processing, object-oriented programming, and components, among other topics; the book "implicitly tells the story of a company" (Software AG). The intention is to lay a groundwork for the design of IT systems for electronic business. This groundwork is essential, and often ignored in discussions of Ecommerce technology. Many enterprises are like the large telecommunications company where I work - interconnection of web and legacy systems is a fact of life. The presentation is technical and was planned to be adequate background for Part 3 ("Enabling technology"), covering Java, XML and Bolero (Software AGs Java-based Integrated Development Environment).

Despite the solid technical information, coming from a major industry player, it is almost as if the authors are apologizing for discussing "old" technology. For example, "Chapter 4 discusses the concept of, *alas*, [emphasis added] transactions, a fundamental concept in commercial programming" (page 49). Transaction pro-

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cessing is still key for Ecommerce, so there is no need for apologies. And, the authors say "talking about OO programming seems to be a bit odd in a part of the book entitled 'New thinking'. After all, object-oriented programming is more than 30 years old. But it is true: in commercial programming OO is still a relatively young discipline." (page 56). Well, yes, many, probably most organizations have not adopted "pure" OO methodologies; they are still implementing Ecommerce solutions every day of the week.

Throughout the book, a simplistic relationship between business processes and applications is manifested. For example, on page 52: "Usually each business task (such as reservation or confirmation) is mapped onto one ACID transaction. The containing business process (from reservation to check-in) does not have an equivalent in software technology, but is represented by state information in data elements and by organizational structures." Even though Part 1 has a cursory description of reengineering, throughout the book almost no appreciation is shown for the need for systematic approaches for analyzing and redesigning business processes. IBM is a current leader in what I think is the correct approach for Ecommerce integration- they are focusing on integration of processes - striving to respond rapidly to business driver changes. The book's emphasis is on a mechanistic definition of a business process that is very very close to an application process: "an electronic business application must model a business process not only function by function but as a whole organic process, where the actions of the end user lead from one well-defined state to another. The application is responsible for the coordination of all business functions." (page 224). What is left out are the methodologies needed to "critically examine, rethink and redesign, and implement the redesigned mission-delivery processes in areas important to customers and other stakeholders." (Adapted from Wizdom Systems Glossary of BPR Terms, http://www.wizdomsystems.com/sbprglossary1.htm#BusProcRedesign). The methodologies included in Part 4 are important but well-known basic software reengineering and SDLC ones, with an emphasis on reuse.

Part 1 covers familiar ground: references to the omnipresence of the web, virtual enterprise and reengineering; these topics are becoming shop-worn in 2001. To be fair, the book is threaded throughout with warnings that Ecommerce is fast-paced, and the book can only provide a snapshot. In fact, the reader is admonished in the Introduction to "Read it (the book) and read it quick. Please." The material in Part I shows some thoughtful choices of example businesses (Aeron chair, with German text sample pages) and concepts ("from supply chain to supply network"). This type of information would make a decent textbook section introducing Ecommerce.

Part 3, with its discussion of Java and Bolero, was intended to add a great deal of value ("the unique focus of this book is on Java technology", page ix). However, there is so much available on Java, it does not seem reasonable that even a very good presentation of Java can make a difference. I have surveyed quite a few evaluations of Bolero, and none have given it higher grades than any other Java Integrated Development Environment. But the whole is sometimes greater than the sum of the parts. This book would make a very good text, combining Internet history, software technology concepts and key technologies with an introduction to an Internet programming language with its own PC-based programming environment. (Bolero Component Studio, personal edition, is included with the book).