

Part II of the book, "Speculations on System Design," is far less satisfying. But, the ideas raised in Part II reach fruition in *The Systems Approach and Its Enemies*. *The Systems Approach and Its Enemies* examines via critical thinking the primary challenges faced in practice by systems thinkers as they attempt to understand, model, and implement changes within organizational systems: politics, morality, religion, and aesthetics. The value of the perspectives offered by Churchman is that his real experiences—as a rational planner who has lived deeply in rationality, in modeling, in conceptualization and in trying to measure aspects of reality—are finely integrated with the abstract concepts being tackled. This is perhaps best seen in the book's concluding chapter. Churchman emphasizes the importance of surfacing paradoxes in carrying out systems analyses, offering the view that it is only by surfacing and articulating the paradoxes involved in an organizational system (in Churchman's terms, "being our own worst enemy") that the systems analyst can begin to understand its nature.

Please read (or reread) these books. The ideas expressed are complex and rich; these are not easy reads. However, each will influence your thoughts and behaviors as an information systems educator, as a systems designer, and as an organizational scientist.

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H. SMITH AND P. FINGAR, *Business Process Management (BPM): The Third Wave* (Tampa, FL: Meghan-Kiffer Press, 2003, ISBN: 0929652339, 295 pages, \$39.95).

## Introduction

Information Systems (IS) professors, researchers, and practitioners must be aware of emerging technology trends that impact our areas of concentration. One such trend that is "emerging as the moniker for the next Killer App in enterprise software" is Business Process Management (BPM) (Delphi Group 2002, 1).

Many vendors, authors, and industry pundits are pedaling their versions of BPM. But the most complete, objective, and straightforward analysis I have encountered is in the book *Business Process Management: The Third Wave* (BPM3) by Howard Smith and Peter Fingar. This book demonstrates why the third wave of BPM in computing processing is so important: because today's solutions must evolve to further enable enterprises to continuously improve:

Under the data-centric IT paradigm, business people can not take control. They have no way to obtain the information systems they need in order to compete, not only on cost, but also on quality, speed, and service. (Smith and Fingar 2003, 15)

IS professionals experienced in enterprise software applications will immediately grasp the authors' argument and empathize with the need for a different type of computing paradigm, one based not just on the management and manipulation of data, but also on the business processes that give context to the data.

## The Third Wave of BPM

Lift the cover of *BPM3* and you will immediately understand what the authors hope to achieve: "Don't bridge the IT-business divide—Obliterate it" (inside cover). They aim to convince those involved with enterprise software to leverage BPM principles and technologies to reduce the unnecessary complexity that inhibits businesses from gaining business value from their IT investments. The authors' objective analysis of IT's history mixed with their customer experiences (see Appendix D: Lessons Learned by Early Adopters) and references from widely accepted business philosophers create a compelling argument for diagnosing and fixing today's business computing applications.

Smith and Fingar (2003, 73) define BPM as “a synthesis of process representation and collaboration technologies that removes the obstacles blocking the execution of management intentions. Therefore, BPM is the convergence of management theory ... with modern technologies.” This definition sets the tone of the entire book: to ensure the focus of BPM is not just on BPM’s underlying building blocks, but also on how these building blocks enable businesses to implement change in order to increase competitiveness. In both *BPM3* and in their subsequent book *IT Doesn’t Matter, Business Processes Do*, the authors argue that much of the IT world has taken a different approach, one that does not fully address the fundamental business requirement of low-cost adaptation.

The authors describe the three waves of BPM to help readers grasp the fundamental paradigm shift that the latest rendition of BPM will create in the enterprise software industry. The management of business processes began in the 1920s with nonautomated processes implicit in work practices and was dominated by Fredrick Taylor’s theory of management. The second wave of BPM was driven by Michael Hammer and James Champy’s business process reengineering and Enterprise Resource Planning (ERP) software. In this wave, “processes were manually reengineered and, through a one-time activity, cast in today’s ... packaged, off-the-shelf systems” (Smith and Fingar 2003, 18). Now, Smith and Fingar claim the world is experiencing the third wave of BPM, where business processes are “made the central focus and basic building block of all automation and business systems” (Smith and Fingar 2003, 18). In this phase, the main design goal of business solutions focuses on change, specifically on how to implement changes to business processes without requiring companies to have significant technology knowledge. BPM will become the foundation for how software vendors will fulfill the ultimate challenge of automating customer’s specific business processes for the lowest total cost ownership possible.

### **BPM Technology**

Although *BPM3* was written for both a business and technical audience, the authors sprinkle in technological terms and theory that will be familiar to most IS professionals. For example (Smith and Fingar 2003, 19, 75, 82–86), the book includes high-level differentiations between BPM and ERP, enterprise application integration (EAI), workflow, computer-assisted software engineering (CASE), and other related technologies. Because technologies that focus at their core on business processes are relatively new in the marketplace, there is significant confusion regarding the criteria used to identify a pure BPM solution and how to differentiate it from a legacy solution.

Having accounting knowledge helps understand this important differentiation. Consider the business processes that generate the debits and credits that are captured in an income statement and balance sheet, such as buying real estate, selling products or services, paying employees, offering stock, paying debt, etc. Based on exposure to such enterprise-wide processes, students of accounting recognize that even though processes have different purposes and are made up of unique activities, they all share the need to be identified, designed, executed, monitored, controlled, and analyzed in order for a business to continuously improve. A BPM solution helps automate these capabilities for any type of process in a manner that reflects the inherent nature of business processes. The following analogy provides further clarification:

Just as the car designer need not go to the IT department with new car specifications in order to make design changes, since direct manipulation of the design is already built into CAD methodology and tools, neither does the process designer need. Design, deployment, and subsequent management are built-in features of the BPM approach (Smith and Fingar 2003, 97).

Are such BPM tools ubiquitous today, where Supply Chain managers modify the `PROCURE_DIRECT_INVENTORY` process model in their BPM solution to alter how inventory actually gets purchased? Not quite, but almost all major technology application and middleware solution providers are evolving toward this revolutionary paradigm. Specific examples include

AppConnect from PeopleSoft, Netweaver from SAP, Universal Application Network from Siebel, and WebSphere Business Integration from IBM. For a fascinating glimpse into a process-oriented future, look at the innovative offerings of some of the early stage companies that belong to Business Process Management Initiative (<http://BPMI.org>).

Smith and Fingar (2003) provide several appendices to the book that technicians will find very useful, albeit abbreviated. Appendix A: The Language of Process describes the critical role an open, standards-based computing process language will play in making BPM pervasive (see <http://www.bpmi.org/specifications.esp> or [http://www.oasis-open.org/committees/tc\\_home.php?wg\\_abbrev=wsbpel](http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=wsbpel) for examples of proposed process language specifications). IS professionals will also be interested in Appendix B: Business Process Management Systems. This appendix describes the platform that enables BPM, the Business Process Management System (BPMS). The BPMS is a conglomerate of tools, runtime engines, and technologies that all center on business process entities defined in a process language. The authors recommend that technology readers who want to understand the theoretical underpinnings of BPM should also read Appendix C: The Theoretical Foundations of the Third Wave before any other sections in the book. Appendix E: The New MBA Curriculum may especially interest IS professors. This appendix reviews the BPM challenge M.B.A. students face when coming out of school of “integrating work processes ... across disparate computing platforms, applications, and operating systems” and requests professors to “please teach your students to speak ... the language of process” (Smith and Fingar 2003, 282).

### **The Result**

*BPM3* helped crystallize my thoughts not just on how enterprise business solutions should be defined, but also on how companies will differentiate themselves in the next decade. To remain competitive, decision makers must have intimate knowledge of the processes that generate the outcomes they value and be able to implement changes to those processes without requiring significant incremental costs. Deming said that “every action, every job is part of a process” and that management must understand these processes and strive to continuously improve them (Deming 2000, 87). Companies that employ such process-oriented management theory and use *BPM3* to guide their supporting technology decisions toward a process orientation will establish themselves as leaders in their respective markets.

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