

The Third Wave

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Despite several books, numerous articles and coverage in the media, is anyone clearer about what BPM is at the beginning of 2004 than they were at the beginning of 2003?

Analysts have not helped. Gartner defines BPM in at least three ways, promoted as such by three different analysts. According to Gartner (and the vendors it tracks), BPM is either the evolution of EAI, the evolution of workflow, the evolution of ERP or the bundling of all these to create new products, with a healthy dose of Business Rules thrown in. To add insult to injury, Gartner found the need to further confuse us in 2003 by introducing the term Business Process Fusion (BPF). Their definition appears to be quite close to everyone else's definition of BPM in support of what some end user organisations, for example GE, refer to as process digitization or process consolidation. These diverse analyst tracks reflect trends in the IT industry towards the emergence of unified Business Process Management Systems (BPMS), an enterprise-scale platform capable of managing the complete lifecycle of business processes.

The vendors have not helped. Everyone, but everyone, is using the term BPM. Remember when you picked up your copy of *KMWorld* magazine at the first KMWorld conference and found that the vendors advertising in the back section were the very same ones you saw last year at SearchEngineWorld!

And don't look to the standards committees for the answer. In over a thousand posts to the OASIS technical committee on BPEL (Business Process Execution Language) there is hardly a word about what BPEL *is actually for*. It is often positioned as the replacement for BPMI.org's BPML, but if BPEL developers don't discuss the customer's business need for BPM and BPMS tools, how can we be sure? The same situation exists at the W3C and OMG. Will all this technical work converge to clarify BPM in 2004?

Paul Brown, CEO of FiveSight Technologies, describes BPM this way, "BPM is a compelling concept for customers, but it's easy to underestimate the scope of the required software platform or the amount of organizational investment required to embrace it. For better or worse, marketing has helped customers to define their expectations of a BPMS in simple terms: something akin to Rational for a process design and repository environment, BusinessObjects for reporting, a fully redundant WebLogic/Oracle cluster for deployment, all of iWay's adapters for integration, and scanning/OCR to import user interface flow and forms from napkin drawings. The whole lot will be deployed by a single install script, integrated and configured in a week, and thereafter, an administrative assistant will be able to blithely reconfigure the company through a voice recognition front end."

The point being, of course, that the power and promise of BPM is there, but it is a major undertaking at enterprise scale. So let's get right down to basics and clarify the first principles of BPM:

- **BPM is not new**

The use of the term "BPM" pre-dates the recent pioneering work of organizations that focused on business breakthroughs made possible through the digital



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management of end-to-end business processes, specifically, BPMI.org. Most commentators agree that the term “BPM” was used to distinguish modern ways of improving processes from the older reengineering methods—and, of course, to avoid using that dirty word, reengineering. BPMI.org was founded in 1999. The co-founders interpreted BPM as a focus on end-to-end process improvement, through digital management of the entire business process lifecycle: the discovery, design, deployment, execution, operation, analysis and optimization of business processes. In another sense, the need for business process *management* can be traced back to the emergence of management theories in the 1920s, but only now do powerful computer-assisted capabilities show promise for realizing management theory in practice.

- **Business processes exist**

BPMI.org and other organizations furthering the advancement of BPM did not invent business processes. They have been implicit since the beginning of business and commerce. Whether we choose to call them business processes, practices, work activities, procedures, workflows or whatever, businesses have always had business processes. They *are* the work, and how the work gets done; they exist quite independently of any technology.

- **Many business disciplines are BPM in other clothes**

Just as business processes exist, whether we choose to call them processes, outputs, services, supply chains, work patterns or collaboration, *business process management* exists, albeit mostly implicitly. BPM efforts go by many names, including industrial engineering, ISO certification, Six Sigma, business process improvement (BPI), business process re-engineering (BPR), Rummler-Brache, Integrated Definition Function Modeling (IDEF0) and Lean thinking, to name a few. Rooted in the heritage of practices across numerous industries, they are manifestations of the same thing. They seek to understand and improve business processes. They are, as we say *process work*: work with processes (i.e. management) and work in processes (i.e. participation).

- **BPM tools can only be developed if BPM can be defined**

If we want to enjoy the same productivity gains in our BPM work as we enjoy in such diverse fields as financial analysis and computer-assisted manufacturing, we'll need tools, and we know of no better tool for knowledge work with business processes than the digital computer. Such tools, what we call Business Process Management Systems (BPMS), will need to represent business processes in the computer system so that they can be directly manipulated by business analysts. To do this, developers of BPMS software will need to define a digital representation for business process, just as today we have comprehensible digital representations for documents, data, spreadsheets and 3D product design. Under the cover of such systems, strong theoretical underpinnings are needed to ensure the integrity of the process representations; while above this foundation, the renderings of digital business processes must be intuitive and map to the mental models of the business users. For example, if we are speaking of a check writing process, just digitally render a good old-fashioned check—everyone knows how to write a check, no training needed. While this is a trivial example, when you think BPMS, think CAD/CAM and you'll have the idea. The BPMS is



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what's really *new* in BPM—a powerful new means of executing on management theories that go back to the 1920s.

- **Reliable BPMS platforms need a foundation in science**

The only successful software products are those that are well founded in scientific theory. BPM tools need a theoretical foundation for processes, and the lifecycle of process change, for business processes must be able to change their structures as they interact with other business processes. This world of interaction processes, the world of real business processes, cannot be predetermined from the viewpoint of individual software programmers. It must be rooted in reality—what processes really are, and how they behave in the ugly real world of business. Just as the mathematics of relational algebra underpin today's database management systems, the cornerstone of today's business automation, a solid computer science of mobile processes is the essential foundation for building reliable and robust BPMS platforms.

- **There is an opportunity to create a BPMS platform**

Workflow management systems were the notable first attempt at defining and managing the flow of work in an enterprise with an initial emphasis on document routing and human interventions and decisions. Business processes, on the other hand involve more than people and document flows of work. To overcome the limitations of workflow underpinnings and address all forms of business processes, BPML.org focused on a theory inherent to all processes, human or systems-oriented, and a corresponding digital representation for business processes. Again, this was not the first attempt. But through BPML.org's effort the foundation has been laid to create BPMS products that can support holistic BPM in the enterprise. While there is no law of nature that says that BPMS platforms must exist, or that if they do exist that everyone must use them, BPML.org has created the foundation to bring BPMS platforms to market. Just as the RDBMS came into the business marketplace, the market itself will determine the winners and losers.

- **BPMS platforms create new industries**

Just as the RDBMS (first capitalized on by Oracle and later replicated by others) spawned an IT industry comprising ten thousand software applications, there is the opportunity for a common process platform, the BPMS, to have a similar impact. Many today view the BPMS as the re-invention of the application. SAP, a successful software vendor that built its fortune packaging processes and data models for RDBMS systems, has finally run out of steam with that model. So SAP is now developing a BPMS called Netweaver, and simultaneously investing in pioneering BPMS companies such as Intalio Inc.

Recently, SAP's Shai Agassi, stated, "I think NetWeaver is our next foundation—just like three-tier client server was our foundation 10 years ago. NetWeaver is our foundation for the next 10 years."^[1] Intalio, whose n³ platform many consider a proxy for a reference architecture for BPMS, are also now being mimicked by IT giants such as IBM who are developing BPEL run times which will form a new heart for their future business systems. For many BPML.org members, the BPMS platform is not just a tool, it's 24x7 business critical infrastructure. For example, FiveSight Technologies are also developing a reliable process "core" intended as



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software infrastructure. As reported in the same eWeek article, "These latest moves put SAP in tight competition with business process management software developers, and take the company further down the new technology curve than competitors such as Oracle Corp. and PeopleSoft Inc."

Making it easier for non-IT professionals to manage their business processes without intervention from IT naturally makes some IT-professionals nervous. "Transactions are the lifeblood of the company, and this isn't just somebody slicing and dicing a workflow [for analysis]," said SAP R/3 user Paul Hoogenboom, vice president of operations and CIO at RPM International Inc., in Medina, Ohio. "These transactions ... have a great impact on the GL [general ledger], and people like me have to sign off and have integrity in those processes. You have to be really certain in an auditable process that your transaction has integrity. A lot of processes have impact on the GL." So the challenge for BPMS vendors is to achieve ERP scale integrity and reliability in business processes designed, deployed and managed from the desktop. Sounds ambitious? Yes, but this is indeed the new possibility in business automation, a possibility that directly affects the bottom line and competitive advantage in today's complex, global economy. Where there is new possibility, there is new scepticism.

While he admires SAP's initiative, Hoogenboom said he does not think it's realistic. "They are pursuing a holy grail," he said. But SAP users that have been exposed to early versions of Netweaver and early adopters of n³, the BPMS from Intalio Inc., are enthusiastic about the direction the IT industry is heading. The basic concept is process-oriented programming, which creates executable processes, with the same power of an ERP back-end, but using a different back-end approach, and using simple visual metaphors similar to what business users are already familiar with from process modeling tools from Popkin, Casewise, Mega, Proforma and IDS-Scheer. Want a new process, or a custom variant? It's as easy as copying a database table and filling in new values. Will IT-professionals want control over the BPMS platform as they have maintained over database management platforms? You betcha. Does that mean IT will have control over which processes are run over that platform? We think not. The BPMS creates a shared language between business and IT professionals, and cuts out long development times because of its Design Driven Architecture (DDA) approach. As one ERP vendor said to us, "We have a problem. Our customers want processes in 6 weeks and we are taking 18 months to deliver them." Can a BPMS platform help? It's already happening in pioneering companies, and the value proposition for implementing a BPMS platform is so compelling that no company can afford to ignore this new development, especially given the cost of ERP upgrades and consolidation.

- **BPM tools are applications of the BPMS platform**

Plug existing process management tools into a BPMS platform, and you have the start of a new industry with a radically different ROI model to that which ERP vendors have pursued to date. Such tools are the baby steps towards a BPM industry.



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Happy new year, 2004

By the end of 2004 it will seem quaint indeed to do BPM using whiteboards, PowerPoint or Visio—BPM 2004 will be the year of *flowcharts on steroids*. Thanks to the breakthrough of BPMS, work with processes, and work within processes, will never be the same again.

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Footnote

[1] “SAP Eyes Web Services Development”, <http://www.eweek.com/article2/0,4149,1383300,00.asp>

