

The Future of BPM - Part 6 of 6

Keith Harrison-Broninski

Who will take BPM into the future?

This is the concluding entry in a 6-part BPTrends series on BPM futures. Previous series entries showed that

- The imminent provision by the OMG of a standard XML format for BPMN will effectively render BPEL unnecessary
- The adoption of BPMN for process definition means that business process automation will become a high-level graphical interface to component technologies, rather than a separate layer in enterprise architecture
- By taking a computer science perspective, we can see that in due course Web service **choreography** will supersede Web service **orchestration** for the definition of those processes in which human involvement is limited to key decision and data entry points (what I call "mechanistic" processes)
- Hence, forward-looking organizations need to consider now the creation of choreography descriptions, an activity for which the techniques of Human Interaction Management¹ can be used – both to develop the processes needed to establish agreement on multi-party collaborative contracts, and to provide the graphical notation needed to depict the contracts themselves.

In this final series entry (at least for now) on BPM futures, I will look at the type of software vendors best positioned to take business process automation forwards.

The argument above shows that business process automation is turning into a rather different sort of activity than has been supposed to date. As implemented by current BPM suites, business process automation is largely a matter of drawing flowcharts; effectively, it is a sort of high-level, graphical programming. In fact, BPM competes directly with a combination of the UML and J2EE, for example. Though the picture painted by BPM vendors and some analysts is rather different, the battle could be considered a David vs Goliath one. I would happily bet that the total number of all BPM installations ever is nowhere even close to the average number of downloads of JBoss (say) in a single month – which was in November 2005 about 200K².

Of course, a BPM suite provides features that do not always come for free with a component-based approach to process automation – in particular, Business Activity Monitoring (BAM), although here too technologies such as JMX are starting to provide a viable alternative. However, my point is simply that to date BPM has not become an ubiquitous part of enterprise technology, and this is because it is competing with other approaches that are mature and very well-established. Moreover, the people who are in the end responsible for implementing and maintaining BPM – the IT departments and their outsourcing suppliers – are a lot more comfortable with J2EE or .NET than they are with a particular, proprietary BPM toolset.

However, all this may change with the next generation of BPM tools. The argument that was made in previous series entries, and that is outlined above, shows that business process automation will inevitably move towards the creation of multi-party collaborative contracts, where the parties may be internal to a single organization or span several organizations, and the use of these contracts to generate executable business processes. This is a very different kettle of fish from the usual software development process. Though agile methodologies, in particular, place an emphasis on negotiation and re-negotiation of client expectations, the future focus of BPM will be on the *creation of agreements among several collaborating parties*. BPM tools will then provide the means for each party to automatically turn their part in such agreements into working software.

Tools of this nature bear little relation to existing BPM products. But they do bear a strong relation to another class of products, those provided by vendors specializing in middleware to support Service Orientated Architecture (SOA). SOA techniques are in flux at the moment, and there is a lot of debate among experts as to the benefits of a distributed vs centralized backbone, or the WS-* stack over simpler techniques such as REST and XML-over-HTTP. However, despite all this debate, there are some tenets to which most people adhere; in particular, the key technique of SOA is to establish what are generally called **service contracts**. There is little agreement among those in the field even on what a service *is*, but most agree that a service should expose some kind of description as to what it *does*. A service contract is a description of itself that a service publishes, to explain to those calling it what they can expect the service to do

There is a strong parallel here to the direction in which business process automation is going. Both are based on the definition of contracts, rather than on the definition of internal behavior. SOA tools have not yet advanced to the point of being able to generate the latter from the former, but (as shown in the previous series entry) there is every reason to suppose that this can and will be automated by software in due course.

There is a growing realization that the architectural principles emerging for the design of business processes by analysts (based on establishment of multi-party service contracts for collaborative behavior) are the same as those already used by technicians in SOA. In fact, there is a strong argument that, in a decentralized, globalized, internet-enabled economy, it will soon be hard to survive without applying such principles to the organization of your enterprise. As McKinsey wrote recently³,

"The shift from transactional to tacit interactions requires companies to think differently about how to improve performance – and about their technology investments. Moreover, the rise of tacit occupations opens up the possibility that companies can again create capabilities and advantages that rivals can't easily duplicate."

Hence, it is realistic to expect that the next generation of tools for business process automation will come neither from platform vendors, nor from BPM pure-plays, but from vendors currently providing a complex and, to many people, invisible part of the IT middleware infrastructure – tools that come under such confusing and often overlapping categories as Web Services Management (WSM), Enterprise Service Bus (ESB), Enterprise System Management (ESM), and so on.

TAKE AWAY

In the next year or two, expect SOA to become high-profile among business leaders as well as technical folk – as much a management methodology as an approach to IT. This change will bring with it some key questions, related not only to development (How can we create a set of services, and agree on them with those responsible?), but, also, to **governance** (What policies, procedures and other controls do we have in place for maintaining and regulating services?) The SOA community is evolving some answers to these questions, but, inevitably, these answers are currently too IT-focused. If SOA is to successfully make the transition into a management approach, it needs to take on board the general principles and patterns that underpin business activity⁴.

Such principles and patterns need not only to encompass diverse fields of business theory (quality management, knowledge management, project management, etc.) but also insights from the many scientific disciplines connected with organizational life (psychology, biology, social systems theory, learning theory, and so on). Further, it is no good assembling such insights into a huge, diverse, and confusing set of "best practices" – the consultant's favorite trick. They must be organized properly into a theory with a formal basis that provides the reassurance of sound thinking together with a structured and maintainable approach to implementation.

With respect to IT industry support for this move, expect SOA vendors to find an exciting new field opening up for them in the full support of mechanistic business processes, currently considered the domain of BPM tools. Those SOA vendors that embrace the move to declarative expression of processes descriptions, and automatic generation of process implementations, may well find themselves catapulted to a new and prominent level of visibility among business leaders.

P.S.

This article concludes the BPTrends series on **The Future of BPM**.

On a personal note, before the original publication in [my blog](#)⁵ of the ideas in this series (in February 2006), I did not expect them to be met with much, or any, agreement. Not only do the ideas go somewhat against the grain of current analyst (and vendor) assertions, but BPEL, in particular, is a focus of current IT industry interest (and consequent vendor investment). Hence, I was not expecting the articles to be received with much enthusiasm by the IT industry!

So it was a pleasant surprise to find prominent people in the IT industry publicly expressing agreement with specific predictions, and to find the original blog articles the subject of widespread attention, garnering an unprecedented number of page hits, according to [ebizq.net](#). It seems that the predictions are being taken seriously; for example, they have been republished in various forms (including this BPTrends series), analyst warnings were issued based on the content, and some of the largest companies in the world have been contacting me to request private strategic briefings based on their content.

Whether you agree or disagree with the views expressed in the series, I am interested in your views, as well as in any relevant experiences you may have had with the technologies concerned. Please let me know, either publicly via a blog comment or privately via email (see my bio). All messages will be treated in complete confidence unless by otherwise arrangement.

I hope you have found the series content useful.

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¹ <http://human-interaction-management.info/>

² http://h71028.www7.hp.com/enterprise/downloads/HP_JBoss_Relationship.ppt

³ http://www.mckinseyquarterly.com/article_page.aspx?ar=1690&L2=18&L3=30

⁴ <http://human-interaction-management.info/>

⁵ http://www.ebizq.net/blogs/it_directions/