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Wedded Bliss

By Sue Bushell

When business and technology march down the aisle, it's best not to trip over each other's feet.

Remember all those sports days and community picnics of your childhood when they lashed your right leg to someone else's left (or their left leg to your right) and made you dash together towards a finishing line?

The name of the game was three-legged race, and for you the aim was to complete the race without giving way to the giggles or tripping over your team-mate's feet and falling in a heap. Of course, your head teachers and sports teachers had an entirely different aim in mind: teaching cooperation, since until you learned to coordinate your leg movements, neither you nor your running mate were going anywhere.

Well, now is the time to strap business's leg firmly to yours and show executives the advantages of matching IT's stride, says PepsiCo senior vice president and global CIO Tom Trainer. Trainer sees a lot of parallels between that perennial picnic day favourite and the ever-evolving relationship between IT and business: last year he collaborated with other pre-eminent industry and academic thought leaders on the book *Winning The 3-Legged Race: When Business and Technology Run Together*.

The first major publication of the Business Technology Management Institute (BTM Institute), *Winning The 3-Legged Race* shows how to subject business technology to a comprehensive set of management standards. It outlines the critical concepts for business technology management (BTM), an emerging management science, and offers concrete executive agendas.

However, Trainer also uses another analogy to describe the subtle ways that the relationship is shifting as business slowly becomes committed to placing IT squarely in the critical path. "We're about to witness the marriage of IT and business, where before it was just casual dating," Trainer says. "It's hard to imagine any sizeable business now not almost totally reliant on IT for everything from closing the books to strategizing and enabling strategies in supply chain all the way through the business. The question is how do you do that: What's the governance model that commits people on a day-to-day basis to managing all of that?"

"That's what I meant when I said it was casual dating before. There wasn't really a commitment but it was something that seemed to be trending in a direction that might make sense for some. Now it's a marriage and I can't imagine a big company not really being committed to having IT in the critical path."

If IT and business are to wed, Trainer can claim some credit as one of a group of global leaders and academics playing a crucial behind-the-scenes role as matchmakers. He is an enthusiastic member and proponent of the not for profit BTM Institute, an organiza-

tion of world-class experts in unifying technology and business. Its work, he says, is aimed squarely at providing the basis for "growing" future generations of CIOs by teaching them the management science of information technology.

The Knowledge Economy Rules

The BTM Institute's most recent book, *Six Billion Minds: Managing Outsourcing in the Global Knowledge Economy*, is intended as a wake-up call to global leaders. A collaboration among more than 60 international academics and global leaders, the book explores management challenges and innovation opportunities in light of the profound impact of globalization and the emergence of the knowledge economy. According to reviewers, it shows how to build excellence by leveraging the vast global knowledge pool of the "six billion minds" that make up the emerging knowledge economy, which is driven by the convergence of business and technology.

Meanwhile, *Winning The 3-Legged Race* represented a major milestone in an unprecedented, multi-year research program into the interplay of business technology with business strategy, governance, budgeting, organization, risk management, business processes, partnerships and the marketplace.

"The Institute was founded in 2003 with an aggressive research agenda, and this is its first major output," Faisal Hoque, the book's lead author, Chairman and CEO of BTM Corporation and Founder and Chair of the BTM Institute, said of *Winning The 3-Legged Race*. "The BTM standard put forth by the BTM Institute provides a structured approach to decision making that allows enterprises to align, synchronize and even converge business and technology management. This book is an important step in the continuing development of that standard."

"The collaboration of these experts is unprecedented. If you were to add up the years these accomplished people have devoted to studying, teaching and practising business technology management, it would be many, many times greater than the 50 or so years we've had information technology itself."

It is time for executive teams to realize that the team-mates who cooperate and coordinate best win the race, the book argues. It targets the failure of most CEOs to fully grasp the way technology is integrated into every corporate activity and addresses the urgent need to turn around a situation where some 20 percent of the \$US2.7 trillion in global technology spending is frittered away. It suggests executives must consider what they should do differently and that corporations must adopt a fundamentally better way to manage the interplay between business and technology.

"Technology generally levels the playing field: one company's technical lead is quickly closed as competitors buy or build the same capability," Hoque says. "But closing a gap in the management of technology is not as easy. It involves how a company is organized and how it is governed."

The book introduces the BTM Maturity Model, which its authors describe as a breakthrough benchmark for setting priorities and mapping effective change paths.

"The history of IT and business has been the back shop and overhead functions really don't have a seat at the table," Trainer says. "That's been changing in the last 10 or 15 years in more leading-edge companies, which have made major investments in IT, have hired professional experienced staff and have given a seat at the table, so to speak, to divisional CIOs, corporate CIOs, and whose vocabulary and conversations have changed due to the realization and the commitment that they truly nowadays cannot achieve their

business goals without IT being in the critical path . . .

"It's been characterized certainly for years that if the CIO doesn't literally have a seat at the table then this is a disaster in the making. But I have come to think of it as IT bringing the business to the table and helping them understand their share of the responsibility for owning the IT investments. I think that makes all the sense in the world to talk about."

Trainer believes there are three categories of CIOs. The job of the first, the CIO who comes in to clean up after a major disaster or to rectify the failings of a period of benign neglect, he says, he probably would not touch with a 10-foot pole. It is the job of the second that inspires and excites him.

"I think there are people like me who are transformation types of CIOs - we are the catalyst to kind of make things happen. I'm the one who enjoys unravelling the spaghetti and trying to figure out why are we are dysfunctional and what relationships we need to build and so on and so forth."

"But then there is the [third] category that succeeds me, who can take it to the next level in a way that I could not. I'm not smart enough or I don't have the innovation or creativity or whatever," he says.

Or perhaps Trainer would simply find it too boring, CIO suggests.

"Boring as hell, yes," he says. "Typically, into my fourth year I'm already thinking about my golf swing and being bored and kind of trying to figure out what I do. It hasn't been that way with PepsiCo as the agenda is hugely challenging, I must add."

The Big Gulp

Now three years into his stint at PepsiCo, Trainer says he accepted the job because IT globally required transformation as part of a broader business transformation. ("You know, the typical business process harmonization/transformation, new supply chain, new go-to-market, new international strategy, the whole bit, enabled by an IT organization that really had not been invested in for several years," he says.)

PepsiCo had been built on acquisitions and mergers, and had many custom interfaces for hundreds of applications when Trainer joined in May 2003, not to mention multiple supply chain systems and instances of Oracle. (The company had 8300 custom interfaces for 900 applications, plus 49 supply chain systems, four instances of Oracle and "it was spreadsheet city", he says.)

"Suffice to say that going into this effort we essentially had what had been acquired by multiple divisions over a period of years," Trainer says. "And since they were not integrated in an architectural sense, they were basically replete with interfaces to databases and each other and so on. So it was an architecture whose time had come."

PepsiCo, in 1999, created the Texas-based PepsiCo Business Solutions Group as a central IT organization. Five years later, the company still had a fragmented technology infrastructure.

"PepsiCo, like most of our big competitors, had been acquiring for 20 years and hadn't really integrated anybody's system, so they had a lot of IT products that were hardwired into various businesses," Trainer says. "It was time to fix it because the company has aspirations of going a whole lot further and they realized they needed to standardize processes where possible, and standardize and develop a shared organization of IT, whereas before I arrived it had been vertically integrated into the various business units."

"So I inherited five organizations essentially: the IT organizations for Quaker and Frito and Pepsi and Tropicana and Gatorade. We had five architectures that were bolted together and worked beautifully thanks to the terrific IT people at PepsiCo, but there wasn't anything that looked like an integrated architecture.

"There is no single culture within PepsiCo and within its divisions," Trainer says. "Frito-Lay is very, very strongly execution oriented, the best at what they do by far, and has a truly dominant market position in just about all of its products.

"The challenge of process harmonization was to harmonize how the various divisions achieve what they do that could be done in a similar manner but also acknowledging those parts of it that are just germane to their particular part of the business or the industry."

To succeed in this kind of mission, organizations must achieve agreement between IT and the business on the governance structure, which Trainer says is becoming the defining difference between IT shops, particularly those subject to Sarbanes-Oxley controls. Sarbanes-Oxley, he says, although it has proved "a thorough pain in the neck and a hog of resources for the first couple of years", has proved a great gift to IT organizations suffering a lack of documentation or controls, or sufficient controls.

"I think it's only a matter of months before your friendly local IBM-er or whoever - whoever your vendor of choice is - is going to be offering to IT executives and business executives the latest, greatest course, which is all about business technology management. Teaching them together on how to manage this stuff," he says.

The BTM Institute says the right way to approach BTM implementation is iteratively. An enterprise must determine where it is in order to focus on specific priorities, design and implement specific capabilities against those priorities, and then execute and continuously improve. The BTM Maturity Model identifies areas most in need of improvement, fixes the starting point for the enterprise, and specifies the path for change.

"Business technology management is a management science applied to business technology that unifies and improves decision making," the book notes. "BTM provides a structured approach that lets enterprises align, synchronize and even converge business technology and business management, thus ensuring better execution, risk control and profitability. BTM investments are investments related to the creation and realization of BTM capabilities.

"A business technology management capability is a specific competency defined by four critical dimensions: each capability is ordered by repeatable processes, executed through appropriate organizational structures, and enabled by the right information and technology," the book says. Enter the BTM Standard: a set of guiding principles that create a seamless management approach that begins with board- and CEO-level issues and connects all the way through technology investment and implementation.

Trainer says the BTM Institute, comprising "an astonishing array of well-known and influential people in business around the world", has recognized that fulfilling this vision means first plugging the major holes in the training received by computer graduates required to address the needs of the business. Once that is achieved, expect a quantum leap forward in technology management.

"There is a major, major, major gap right now. Every year, year after year, the universities and colleges are graduating computer science majors in the thousands if not hundreds of thousands and these people know their way around computers and languages and technical this and technical that, and don't have the first clue about how to manage the IT program in a business. You know, things like: What are the top five or six macro processes that are present in every IT organization from small to large? And how would you organize an IT function, and what are the different models and when would you apply them, how would you apply them? Some of it may have been covered in an 'academic' sense, but 'academic' would be it.

"Whereas this new phenomenon - the BTM Institute - has perfected, if you will, a standard that has been assembled by this astonishing group of people. You have to look at this list on the Web site - it will just knock you over. It is these people who have worked together and met together over the last couple of years and put all of this together and said: This is what we should be teaching our students in association with a computer science degree because it gives the other half of the equation and prepares them for becoming the next generation of leaders of IT functions.

"Essentially in that sense the quantum leap is that we are about to enter the era where we can actually grow the next generation of IT leaders and CIOs, whereas to date we haven't grown them, they've grown themselves.

"I've grown myself, you know. Every CIO has come up a different way with a different background and without any true basis in common (at least that's written down anyway and been taught) and it has been kind of the school of hard knocks in the main. Whereas we're on the cusp now, with the major universities having adopted this BTM approach, where the graduating students will understand about governance and understand about organizational dynamics, and so on. I think that's very exciting."

Once all that is in place, Trainer would suggest, expect to see far fewer businesses and IT shops falling over their own feet.

Taking the Pepsi Challenge

In his 36-year career Tom Trainer, PepsiCo senior vice president and global CIO based out of Dallas, has completed major IT transformations for Eli Lilly and Company, Reebok International, and Joseph E Seagram and Sons, and might have done the same for Citigroup had not internal politics got in the way.

Trainer says all four organizations shared common factors with PepsiCo: "already successful, a great desire by the board and the senior executives to be even more successful via some kind of transformation or repositioning of the company, a realization that they had not spent much on IT for many years, and they somehow as a group realized truly that they could not get there from here unless IT was in the critical path. And it was going to cost a lot of money and a lot of transformation so that things could be properly enabled".

He also considers it critical that he joined each organization as an employee, not a consultant. That is, he says, "as the senior IT person in their world, and typically reporting to the president or the CEO of the company - that proper positioning, so to speak, at the table for IT".

"I saw my role as CIO as to achieve or help achieve success at the top level for the IT function and to give

the company more value for their money than they expected, in the process convincing the IT people whom I inherited that there was something big in it for them individually and collectively if they would buy into my program. I delivered that each time. I also needed to get buy in to the fact that since there was typically an injection of leading edge technology and systems, which they [IT staff] did not have experience with, they had then to tolerate an infusion of typically senior IT executives who would lead them because they had 'been there and done that'.

"So that's one [role]. The second one is to distinctively play a role as one of the senior executives of those companies, not just the IT guy catching the IT ball in conversations in the executive committee. Just as the senior marketing person, senior finance person, senior sales person, senior manufacturing person absolutely weighed in on business strategy conversations or business tactical conversations, they [the board and senior executives] expected me to dive in and give my opinions too. It would not have been satisfactory if I just deferred to them and sat there waiting for something that sounded like IT to pop up."

Now Trainer is midway through transforming IT at PepsiCo into a world-class organization while enabling a Business Transformation/Process Harmonization initiative globally. Responsible for all technology decisions and operations, he leads the company's 2300-member strong IT organization, PepsiCo Business Solutions Group (PBSG). A major part of his role is to collaborate with PepsiCo's division leaders to drive business growth and competitive advantage by leveraging information technology across the company.

Trainer has been InformationWeek's CIO of the Year for his IT stewardship of Reebok's global business process redesign and was termed the "Quintessential CIO" by CIO (US) magazine for his vision and leadership. He lectures internationally on business and technology issues and has been a select member of specialized government task forces such as the President's Council for "United States Strategic Infrastructure in 21st Century" and the Institute for Strategic International Studies.

In addition, he is an enthusiastic member of the Business Technology Management Institute (BTM Institute).