

The Pendulum Swings: Tech Control Moving Back to Users

B2C is influencing B2B technology with expectations of easy deployment, browser access, intuitive use

The path of software development is one of modest zigs and shattering zags – evolution, replacement, displacement, disruption – and today we are zagging again, dramatically.



A Prophix white paper



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Introduction

You can blame Canada, or more specifically, the Canadian firm Research in Motion, now known as Blackberry.

The zig-zagging path of IT development, particularly within the B2B arena, reflects the dynamic tension that has characterized IT since its earliest days. The tension is between those who control the technology – gatekeepers – and those who need it to work for them – the users. For most of IT's history, control has been in the hands of the gatekeepers, who reside in the IT department. In the early days, users lined up dutifully with their stacks of punch cards at the end of the day; hopeful that IT staff would run their jobs and provide the answers they needed to make business decisions – maybe tomorrow or later in the week.

With the birth of personal computing, the pendulum of control swung back toward users, who suddenly found themselves with direct access to computing power. This created disconnected islands of productivity and all the problems that go with them. But when Enterprise Resource Planning software became ubiquitous, IT departments took back control with client-server networks, enterprise software applications, and all manner of system protocols that required the embedding of IT specialists in business processes, or business process experts in IT.

The typical model was for companies to acquire "packaged software" and then customize these applications to meet the specific needs of the individual business. The 'cri de coeur' of the day was, "IT has to have a seat at the table." But IT and business speak different languages. It has not been an ideal solution.



Today, with the emergence of cloud computing, the pendulum of control is swinging back to users. If you're reading this, you know cloud computing is a profound evolution in IT. It is more than a cheaper, more flexible way to process data, it is literally reordering the hierarchy of the IT industry, restructuring the roles of IT professionals, and ushering in a new era of collaboration.

Collaboration is one of those vague, ubiquitous terms that everyone supports, and most people think they understand. But in this case, we are talking about collaboration as a specific IT model that is displacing the customization model of recent years. With this change, the dominance of the big Enterprise Resource Planning (ERP) companies will wane and IT departments will revert to maintaining infrastructure, with no need to understand the business needs of their in-house customer.

Business Models Evolve: B2C > B2B

First though, the Blackberry reference. When Research in Motion (RIM) introduced the Blackberry, the world's first true smartphone, it set tectonic plates in motion for a shift from business-to-business pre-eminence to business-to-consumer pre-eminence. Blackberries were followed by iPhones, iPods, tablets, intelligent watches, and other powerful personal data processing machines in small devices.

Today, profitability has shifted to the consumer market, and consumers have vastly different expectations than IT professionals. They want beautiful, easy-to-use apps. They expect they will not have to spend a lot of time understanding how to work an app. They expect to download and go, without reading an instruction manual. A smartphone is as sophisticated as many B2B products but there's no manual. Its use is intuitive and app deployment must be easy or people won't use them.

It's B2C, not B2B technology, that has changed the way the computer industry works. It is an ideological change that finally puts the user at the forefront.





How We Got Here

The 20th-century era of computing could be said to have really begun in 1943 when the Harvard Mark I mainframe went into service. It weighed five tons, filled an entire room, and cost nearly \$30 million in today's dollars.

That same year, IBM founder Thomas Watson famously said, "I think there is a world market for maybe five computers."

It seemed a reasonable prediction at the time. The ENIAC (Electronic Numerical Integrator and Computer) didn't become operational until 1946. By the late 1950s, commercial mainframes were in operation – in batch mode – to support back-office functions such as payroll and customer billing. Interactive (dumb) user terminals were introduced. Companies such as General Motors, General Electric, and Burroughs developed their own operating systems. The expertise to use the mainframes was in-house.

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"I think there is a world market for maybe five computers."

Thomas Watson, IBM Founder, 1942

By the 1970s, the standard became that companies would lease a mainframe and pay programmers to write programs in Cobol, etc. The expertise was still in-house. Around this time, minicomputers were growing in popularity. Small enough to wheel down the street, they were like small, less powerful mainframes and were also accessible via dumb terminals.

Changes in these early days of mainframes and minis were incremental. Companies had their home-grown legacy systems. They might develop an application in-house using a programming language, or they might buy packaged software and customize it. There were many different databases, hardware environments, and programming languages that made interaction between these applications extremely challenging.



A (Brief) History of Software Development

Shortly thereafter, IBM's Structured Query Language (SQL) emerged as a standard and was then adopted as the standard of the American National Standards Institute (ANSI) in 1986 and the International Organization for Standardization (ISO) in 1987.

Proving the quote attributed to several IT pioneers, "The wonderful thing about standards is that there are so many of them to choose from." Most SQL code is not completely portable among different database systems without adjustments because different companies created subtly different versions of SQL. Then there was a major zag. The era of the personal computer (PC) was born, putting computing power directly in the hands of business users.

Opting to ignore the PC market in the late 1970s, Digital Equipment CEO Ken Olsen famously said, "There is no reason anyone would want a computer in their home." It was a statement strongly rooted in the self-interest of the IT department. Of course, Digital Equipment, then the world leader in minicomputer sales, is long gone, sold to personal computer maker Compaq, which is also long gone.

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"There is no reason anyone would want a computer in their home."

Ken Olson, CEO, Digital Equipment Soon after, computing power was democratized, in theory. Personal productivity tools (word processing, spreadsheets, etc.) gained widespread acceptance.

But for corporations, the PC revolution was more like anarchy than democratization. "Sneakerware" or "sneakernets," the informal transfer of data by physically moving media such as magnetic tape, floppy disks, compact discs, and USB keys, created security and version-control nightmares. The left hand of the organization was unaware of what the right hand was doing. Then, something fortuitous for IT departments' control happened. The calendar flipped over from 1999 to 2000.

The Y2K scare, whether real or imagined, gave IT departments the impetus they needed to retool in a centralized fashion. Client-server computing took center stage, Enterprise Resource Planning became the norm for B2B applications, and the pendulum of control swung back. Legacy systems underwent a rapid demise.

ERP was the system that did everything, with the idea being you would buy everything from one vendor. The SAPs, Oracles, Infors, Microsofts, and Sages of the world grew fat and powerful. Eventually, the ERP companies gobbled up all enterprise functionality. Their story was customers didn't need to buy software from any other company, they could run their entire business using ERP software.

And again, control was firmly in the hands of the IT department. ERP systems were so large and complex that only the professionals could run them. Data centers had to develop ERP expertise, or they had to embed vendors with the expertise.

But today, peoples' technology and control expectations are changing. They want intuitive use and easy implementation. With a new way of thinking created by B2C software, it is no longer acceptable that for every dollar spent on ERP software, a company must spend \$5 to customize it and get it to work.

Frustration, combined with cost and time to customize ERP software, and an increasing expectation that sophisticated technology should be easy to implement created an ideal market for cloud applications.





The Cloud Changes the Model

With apps in the cloud, there's no need for new customized versions of your ERP software; no need to load something onto a PC. Your solution is accessible with a browser from anywhere. Now, people can implement Salesforce with no involvement from the IT department. A Legal department can implement the DocuSign app entirely on its own. Suddenly, we have gone from a B2B model to a true B2C model, and the big ERP vendors are on the outside looking in.

Still, the evolution is far from complete. Many companies embrace the economics of the cloud but just take their on-premise applications and move them into a private cloud. They still have heavy IT involvement, programming, and customization. But that is expensive and cumbersome. The whole customization model is a thing of the past. It cannot work going forward. Instead, the new model is collaboration. True cloud implementation has very little IT involvement. Applications are developed and maintained by cloud vendors, like Prophix and our Corporate Performance Management (CPM) tools.

Under the old model, if you wanted CPM you ran it on your own inhouse servers. If the finance department wanted a change – a new report, a new view of data – they told IT. IT would likely say they were too busy, and the CPM vendor would say it is too expensive to make the change for one customer.

Prophix has always believed that the customization model for implementing business applications is not in the interests of our customers, especially those in the mid-market. When Prophix is implemented, it is configured using a graphical point-and-click user interface – there is no coding. Usually, the implementation is a collaboration between our staff and the Office of Finance. Any modifications to processes, structures or reports are often performed by the customer. This collaboration/configuration model works well.

In practice, most companies using an ERP have their own people on staff who manage it. The IT people don't use these applications. In the past, IT would have people whose job was to understand the business needs of the customer. Now, IT's role is simply to maintain the infrastructure.

Cloud B2B applications are springing up everywhere. The business user might keep someone on staff who knows the intricacies of an application like Salesforce but this person doesn't typically work in the IT department. Departments are managing their own applications.

Customer benefits of today's collaboration model are flexibility and nimbleness. If they want to change a report or data-entry screen, they don't want to wait days, weeks or months for IT or the vendor to get to it. Users are back in control. Vendors also benefit from the new collaboration model. They don't want to be seen as a professional services company. They consider themselves to be true software companies, not services firms with armies of experts doing implementation.

For vendors, customization is incredibly expensive. Another company in the CPM business estimated that 80 percent of its customers had a customized solution. This means that before a customer could use a new version of the solution, they had to pay someone to make it work for them. Maintaining their systems became untenably expensive.

As a vendor of CPM in the cloud, our view is that of a B2C provider. Non-technical, distinct from the costs and complexities of ERP solutions, easy deployment, and easy-to-use. All you need is a browser.

This is the way the pendulum is swinging. This is the future. The whole industry has gone from a large number of legacy systems to single ERP vendors and now, it's moving back in the other direction to user control. The pendulum is already in motion.

Paul Barber is co-founder and CEO of Prophix Software.



About Prophix

Your business is evolving. Your systems should evolve too. Achieve your goals more successfully with Prophix's innovative Corporate Performance Management (CPM) software. Improve profitability and minimize risk when you automate repetitive tasks and focus on what matters. Budget, plan, consolidate and report automatically. Whether in the cloud or on-premise, Prophix supports your future with a platform that flexes to suit your strategic realities, today and tomorrow.

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