

THOMAS M. KOULOPOULOS

the

WORKFLOW IMPERATIVE



BUILDING
REAL WORLD
BUSINESS
SOLUTIONS

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Preface

Over the past five years, I have been involved in analyzing the business and government processes of hundreds of organizations—organizations that by all rights should have crumbled under the tremendous inefficiency of their redundant, overspecialized, compartmentalized, costly business processes. There is only one reason why these organizations have survived—the same inefficiencies run rampant throughout their industries.

Perhaps I should not be so quick, however, to call the current practices of these organizations inefficient. After all, any competitive advantage, technology-based or otherwise, is temporary. In a free market economy, it's only a matter of time until competitive forces cause competitive advantage to become a standard practice for an entire industry. In this light we could say that efficiency, and the resulting productivity, is always a relative measure. In other words, inefficiency is problematic only when there is a benchmark for improvement.

This book is about a new benchmark; the level playing field has begun to shift—radically—and the benchmark for survival is changing. A few organizations are starting to pull ahead of the pack by applying the technology and discipline of automated workflow. These organizations are



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radically altering their work environments and, consequently, distinguishing themselves by achieving quantum competitive advantage in their process cycle times, product innovation, and customer responsiveness by double-digit factors.

This type of competitive disparity would normally dictate immediate change, but the *workflow imperative* represents a mandate for change greater than anything we have seen since the beginning of the industrial revolution, over two centuries ago. Change on this scale will rock the very foundation of current business practices and information systems, it will challenge common sense, and it will generate resistance from all of the interests so heavily invested in the status quo—no matter how inefficient the status quo may be.

Although the factory environment may seem a long way from the domain of the knowledge worker, there are some amazing parallels.

The cry for re-engineering ringing out through the hallowed hallways of corporations around the globe is an attempt to begin that change. Of itself, however, re-engineering is a noble but feeble effort that will only trade-in one problem for another. In the words of Tom Peters, it will "Replace old sterile organizations, with new sterile organizations."

The reality is that no re-engineering effort can cause an organization to change as rapidly as the forces of today's market demand. We have long since abandoned the industrial equation for productivity that inextricably linked growth to output volume. Bounding increases in factory efficiency allow today's global industrialized machine to produce more hard goods that can be consumed by the world's consumers. Productivity and growth in today's economic climate demands more than increased output. It requires the ability to innovate new products and services at rates that were unimaginable during the age of factory automation.

Although frustrating to organizations that resist change, the ability to respond quickly is becoming the key ingredient for success and survival. In short, success depends most on responsiveness. In the nanosecond nineties the prize goes to those who can respond quickly and, by the way, *constantly*.

Divorcing your organization from the “any color you want, as long as its black” legacy of the industrial age and making the transformation to mass customization and mass innovation means creating an adaptive organization that is able to constantly change—in intervals of days and hours, not months and years. Pilots refer to this as dynamic stability, the process of perpetually adjusting and compensating for environmental forces.¹ As in the video game Tetris, no single move in the change game constitutes success. Even the most obvious “right moves” create the platform for failure if they are not followed by constant and quick innovation.

So what does this have to do with workflow? The ability to quickly identify and respond to change in your market, economy, workers, and process is the fundamental benefit and the enduring advantage of workflow. Workflow is the culmination of the connected enterprise, constantly aware and constantly responsive to its internal and external environment.

¹ The inverse of Dynamic Stability is Dynamic Instability. In the case of the latter, slight movements are exaggerated in continuous increments as a small error is compounded into a major catastrophe. A possible equivalent scenario in business is the overcompensation in product line extension as an organization tries to reach an ever-diversifying market.

About this Book


The Workflow Imperative is about the inextricable relationship of business and technology. Each drives the other and both drive change. It does not dwell on which one is the initiator of change, and which one is the result; these are moot points to those of us tasked with managing the effects of change. (Few of us care much whether the chicken or egg came first—in either case we must all still get up each day to clean the chicken coop.) Instead, it will look at how technology and business disciplines have come together to form a new discipline—*workflow*.

Workflow bridges the enterprise, from manufacturing to the office, from technology to organizational culture. It is this unifying force that ultimately binds an organization, its people and processes together. In this sense, workflow has always existed in all organizations, whether it is automated or not, the flow of material, information, and knowledge must be orchestrated in order to deliver a product or service. Because there is no such thing as a single step process, workflow is always present, in some fashion to manage the pieces from step to step. But, this simple task, of managing the flow of work, is perhaps the single most important element of competitive advantage in mature markets, which have reached a stage of product, service, and positioning stability. At this

point, competitive disparity can often only be diminished through quantum improvements in the redesign of underlying business processes. Add to this the global economic and competitive forces in today's business climate, and the automation of workflow becomes an imperative for survival.

To understand this phenomenon you must understand both the business impact and the technology of workflow. That is why this book is divided into two sections, one on each topic. *Workflow: The Business Imperative* looks at the ways in which workflow is already challenging and changing existing modes of work. *Workflow: The Technology Imperative* looks at the design and implementation methods, architecture, specific technology components of workflow, and the evaluation of workflow solutions.

If you already have a basic understanding of workflow you should read the two sections in that order. If, on the other hand, this is your introduction to workflow, you may want to skim through the technology section before coming back to the business issues discussed in the beginning of the book. In either case, reading both sections is the best way to appreciate the benefits of workflow's impact on your business, the correct design methods, and the fundamentals of workflow technology.



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P A R T O N E

Workflow:
The
Business
Imperative

C H A P T E R O N E

An Opportunity for Change



The Lukewarmness [by which change is greeted] arises from the incredulity of mankind who do not truly believe in anything new until they have had actual experience with it.

Machiavelli, *The Prince*

The difference between visionaries and fools is just a matter of time.

T.K.

You don't need someone to tell you that your organization is changing. But we all need to be reminded just how much today's organization will have to change to cope in the coming years and decades.

Ever since the nineteenth century, the key indicator of success was productivity. We justified our investments and measured our success by the ability of workers to produce more with less—and for office workers the measure often consisted of just half of that—produce more, more, more. And now suddenly we are told, after two decades of rampant technology investment, that we have not increased our productivity at all! Who is lying here? Those who are working 60 to 80 hours a week, or the economists who have not yet learned that the fundamental formula for success has changed?

If the formula for productivity has changed, and growth alone can no longer be the measure of an organization's productivity, what then, is the measure? What is the justification upon which tomorrow's investments will be justified? Innovation—the ability to quickly, rapidly, and instantaneously respond to change. Many organizations already know this. For example, today 50% of Hewlett-Packard's sales come from products introduced in the last three years. Relentless, unyielding innovation—that is the nature of your business. And that will be the premise for every technology justification you make.

But it also means changing your organization at its very core to a new structure that is as dynamic as the global climate it inhabits.

In this climate of tremendous downsizing, organizations already are running lean. The problem for them is not to eliminate idle capacity and cut direct costs, but rather to cope with a flattened model after it has been imposed by existing business and economic conditions. Technologies will be justified based on whether they enable organizations to restructure on a continuing basis and empower their workers.

Perhaps a better way to look at the changes that have taken place in organizational structures is to define distinct periods of evolution for the modern organization. These boil down to at least four types of organizational structures:

The first and most familiar structure is the *Vertical Organization*. This relic of the industrial revolution is characterized by extensive hierarchies, approval committees, long decision time, resistance to change, and political strife caused by the isolation of hierarchical structures.

The contemporary "white collar" structure that many of us grew up with was that of the *Horizontal Organization*, characterized by matrix and team structures. Horizontal organizations are already flat. They rely on minimal management hierarchy and can respond quickly to certain decisions and investment, but, because they are flat, they are easily crippled by the lack of a communications infrastructure. They are also not immune from the politics of turf warfare.

The structure that has most recently been touted as that of the future is that of the *Virtual Organizations*.¹ A virtual organization is a modified form of the horizontal organization.

Although difficult to comprehend in the context of today's well-defined organizations, we can already see the beginnings of virtual organizations in those companies that adopt a recombinant structure in which resources can be quickly pulled together in a team to solve a particular internal or external problem. However, many of the participants in these teams are still functionally oriented.

¹ Also see 6 Epochs of Manufacturing, in *The Virtual Corporation*. Davidow and Malone, Harper Collins, 1992.

The benefit of virtuality is the reduction of organizational response time. The liability is the cultural impediment created whenever an organization adopts any structure—namely, that markets change faster than most organizational cultures are able to respond with similar change. Since this type of organization knows the value of responsiveness, justification is tied to time-based measures more than it is to direct costs. Justifying new technology is still problematic however, because the power base is still part of a static structure, albeit a very well-connected structure.

This is the fundamental reason why paradigmatic leaders, those who break the mold, have historically come from the ranks of small start-up companies and not from existing industry leaders.

The *Perpetual Organization* is the only constant structure that will survive change because it never stops changing. A perpetual organization can take the form of any structure, based upon the market demands at the moment.

How do we break free of the cultural impediments that intrinsically bound all organizational structures and create a perpetual organization? The key lies in understanding how an organization ultimately changes its form from vertical to horizontal to virtual. In almost every successful case it is the imposition of a subjective crisis, such as a CEO who anticipates a market trend, a large customer who demands change from a supplier, the expectation or realization of diminishing profits, or other quantifiable indicators of change. Notice, however, that I said “every successful case.” The streets are littered with the remnants of organizations who realized their predicament long after any change could be instituted. Planning for change is much like blocking a penalty shot in soccer—if you wait until you know the direction of the ball, you have waited too long.