

# Journal of Business & Leadership: Research, Practice, and Teaching (2005-2012)

---

Volume 3  
Number 1 *Journal of Business & Leadership*

Article 23

---

1-1-2007

## Teaching It In A Knowledge Economy Raising Tacit Productivity

Hans-Joachim Adler  
*University of Texas at Dallas*

Follow this and additional works at: <https://scholars.fhsu.edu/jbl>



Part of the [Business Commons](#), and the [Education Commons](#)

---

### Recommended Citation

Adler, Hans-Joachim (2007) "Teaching It In A Knowledge Economy Raising Tacit Productivity," *Journal of Business & Leadership: Research, Practice, and Teaching (2005-2012)*: Vol. 3: No. 1, Article 23.

DOI: 10.58809/HEHV8133

Available at: <https://scholars.fhsu.edu/jbl/vol3/iss1/23>

This Article is brought to you for free and open access by the Peer-Reviewed Journals at FHSU Scholars Repository. It has been accepted for inclusion in Journal of Business & Leadership: Research, Practice, and Teaching (2005-2012) by an authorized editor of FHSU Scholars Repository. For more information, please contact [ScholarsRepository@fhsu.edu](mailto:ScholarsRepository@fhsu.edu).

## TEACHING IT IN A KNOWLEDGE ECONOMY RAISING TACIT PRODUCTIVITY

Hans-Joachim Adler, University of Texas at Dallas

*The growth of interactions represents a broad shift in the nature of economic activity. Interactions are defined as the searching, coordinating, and monitoring that people and firms do when they exchange goods, services, or ideas. For many employees today, collaborative, complex problem solving is the essence of their work. These "tacit" activities -- involving the exchange of information, the making of judgments, and a need to draw on multifaceted forms of knowledge in exchanges with coworkers, customers, and suppliers -- are increasingly a part of the standard model for companies in the developed world.*

### INTRODUCTION

The number of jobs that involve relatively complex interactions continues to grow at a phenomenal rate. Companies need to make this part of their workforce more productive, just as they have already raised the productivity of transactional and manufacturing labor. Unproductive tacit employees will be an increasingly costly disadvantage. Companies will need to deploy technology that makes shared data, information, and expertise available in real time.

The key to success is knowledge management. It is the explicit and systematic management of vital knowledge and its associated processes of creating, gathering, organizing, diffusion, use and exploitation. It requires turning personal knowledge into corporate knowledge that can be widely shared throughout an organization and appropriately applied. Today's IT courses still focus on traditional business process improvement or reengineering. This doesn't cover the present business needs of a Knowledge Economy. A new generation of an IT teaching approach is required. This is both a great challenge and opportunity for business schools. The Industrial Revolution was about labor, about shifts in the economics of transformation, i.e. of production and transportation. Today an upheaval of major proportions is about to be triggered by unprecedented changes in the economics of interaction: The Revolution in Interaction.

Interactions are defined as the searching, coordinating, and monitoring that people and firms do when they exchange goods, services, or ideas. For many employees today, collaborative, complex problem solving is the essence of their work. These "tacit" activities - involving the exchange of information, the making of judgments, and a need to draw on multifaceted forms of knowledge in exchanges with coworkers, customers, and suppliers - are increasingly a part of the standard model for companies in the developed world.

For the past 30 years, companies have boosted their labor productivity by reengineering, automating, or outsourcing production and clerical jobs. But any advantage in costs or distinctiveness that companies gained in this way was usually short lived. For their rivals adopted similar technologies and process improvements and thus quickly matched or moved ahead of the leaders. Advantages that companies gain by raising the productivity of their most valuable workers will well be more enduring. For their competitors will find these improvements much harder to copy. This kind of work is

undertaken by, for example, managers, salespeople, and customer service reps, whose tasks are anything but routine. Such employees interact with other employees, customers, and suppliers and make instantaneous complex decisions based on knowledge, judgment, company culture, experience, and instinct. These high-value decision makers are growing in number and importance throughout many companies.

The growth of interactions represents a broad shift in the nature of economic activity. At the turn of the 19th century, most nonagricultural labor in business involved extracting raw materials or converting them into finished goods. These activities are called transformational because they involve more than just jobs in production. By the turn of the 21st century only 15 percent of US employees undertook transformational work such as mining coal, running heavy machinery, or operating production lines. In a globalizing economy many such jobs are shifting from developed to developing nations. The rest of the workforce now consists of people who largely or wholly spend their time interacting.

Complex interactions typically require people to deal with ambiguity and to exercise high levels of judgment. These men and women (such as managers, salespeople, nurses, lawyers, judges, and mediators) must often draw on deep experience, which economists call "tacit knowledge". More complex interactions are referred as tacit and to the more routine ones as transactional. Transactional interactions include not just clerical and accounting work, which companies have long been automating or eliminating, but also most of what IT specialists, auditors, biochemists, and many others do.

Most jobs mix both kinds of activities. When managers fill out their expense reports, that's a transaction; leading workshops on corporate strategy with their direct reports is tacit work. What counts in a job are its predominant and necessary activities, which determine its value added and compensation? During the past ten years, the number of US jobs that include tacit interactions as an essential component has been growing two and a half times faster than the number of transactional jobs and three times faster than employment in the entire national economy.

Seventy percent of all US jobs created since 1998 require judgment and experience. These jobs now make up 41 percent of the labor market in the United States. The balance is tipping toward complexity, because companies have been eliminating the least complex jobs by streamlining processes, outsourcing, and automating routine tasks. The number of jobs that involve

relatively complex interactions continues to grow at a phenomenal rate. Salaries reflect the value that companies place on these jobs, which pay 55 and 75 percent more, respectively, than those of employees who undertake routine transactions and transformations.

Demand for tacit workers varies among sectors, of course. The jobs of most employees in air transportation, retailing, utilities, and recreation are transactional. Tacit jobs dominate fields such as health care and many financial-services and software segments. But all sectors employ tacit workers, and demand for them is growing.

The high demand for tacit employees and the high cost of employing them are a clear call to arms. Companies need to make this part of their workforce more productive, just as they have already raised the productivity of transactional and manufacturing labor. Unproductive tacit employees will be an increasingly costly disadvantage. Companies have three ways of using technology to enhance and extend the work of tacit labor:

- **First:** They can use it to eliminate low-value-added transactional activities that keep employees from undertaking higher-value work. Pharmacies, for example, are using robots to fill prescriptions in an effort to maximize the amount of time pharmacists can interact with their customers.
- **Second:** Technology makes it possible to boost the quality, speed, and scalability of the decisions employees make. IT can give them easier access to filtered and structured information. Technology tools can also help employees to identify key trends, such as the buying behavior of a customer segment, quickly and accurately.
- **Finally:** New and emerging technologies will let companies extend the breadth and impact of tacit interactions. This point will be particularly critical, since tacit interactions will occur as much within companies as across them.

Wherever tacit interactions take place so do learning and the creation of new knowledge. But learning in the tacit world is based much more on experience and apprenticeship and on the ways in which both are scaled across the networks of people who participate in interactions: inexperienced managers learn from experienced ones.

In the past, the bulk of corporate investment in technology has been devoted to improving transactional and transformational activities. In the future, companies will increasingly need to deploy technology that makes shared data, information, and expertise available in real time.

Companies have to offer decision support tools that help workers involved in tacit interactions create insights from data and analyses and that enhance the context and information that interactions require. They have to improve the ability of employees, customers, and suppliers to interact. Many of the technologies and tools that tacit workers are going to use will promote the collaborative and dynamic pursuit, capture, and sharing of knowledge.

Management must shift its focus from efficiency to effectiveness, which requires changing from measures of output to measures of outcome, fostering organizational change, learning, collaboration and innovation. Value chain thinking today cannot be based any longer on Porter's original industrial age production line model. That model gradually has been superseded by the new enterprise model of the value network or value web.

Virtually any organization can be understood as a value network. Approaches to analyzing and reconfiguring value networks have to take into account the role of knowledge and intangible value exchange as the foundation for these emerging networked enterprises. A value network generates economic value through complex dynamic exchanges between one or more enterprises, customers, suppliers, strategic partners and the community. These networks engage in more than just transactions around goods, services, and revenue. The two other currencies are knowledge value and intangible value or benefits. They are called "currencies" because all three serve as a medium of exchange, which is the basic definition of currency.

### Key to Success is Knowledge Management

It is the explicit and systematic management of vital knowledge and its associated processes of creating, gathering, organizing, diffusion, use and exploitation. It requires turning personal knowledge into corporate knowledge that can be widely shared throughout an organization and appropriately applied. Companies adopt two broad thrusts in applying Knowledge Management:

- **Sharing existing knowledge better:** Making implicit knowledge more explicit, and putting in place mechanisms to move it more rapidly to where it is needed.
- **Innovation:** Making the transition from ideas to commercialization more effective.

The biggest challenge is that of changing the culture from "Knowledge is Power" to "Knowledge Sharing is Power". Knowledge workers have built up a strong job-related self-image. It cannot be changed by threat or willpower. Deeply ingrained habits keep employees from embracing new techniques, skill-building efforts break down, and leaders lose focus.

While usual change-management practices work fine for shop floors, they are difficult to apply to knowledge workers. One reason is that these employees are working more diverse and complex than those in shop floors where many improvement programs take place. Executives wanting to transform a commercial organization must therefore tailor their change-management approach to several specific challenges posed by knowledge workers. Ideas are changed not by will, but by other ideas! Knowledge workers have to be first shown which of their existing ideas are inconsistent with their goal of generating the best possible outcome. This is done by using the power of rational thinking to examine and reevaluate the belief. Today's IT courses still focus on traditional business process

improvement or reengineering. This doesn't cover present business needs of a Knowledge Economy. The new generation of teaching IT has to:

- Focus on knowledge work productivity
- Focus more on effectiveness than on efficiency
- Focus more on interactions than on transactions
- Focus on evidence-based management and best practice
- Focus more on how to get things done than on what to do, and

- Focus more on cases than on textbooks.

This is both a great challenge and opportunity for business schools. Quoting Peter F. Drucker, "The only possible advantage developed countries can hope to have is in the supply of people prepared, educated and trained for knowledge work. Fifty years from now - if not much sooner - the leadership in the world economy will have moved to the countries and to the industries that have most systematically and most successfully raised knowledge-worker productivity".

---

**Hans-Joachim Adler** serves as clinical professor and director for international business development in the school of management at The University of Texas at Dallas. In his faculty capacity, he teaches management information systems, systems analysis and design, knowledge management, and business data communications. He is also an independent director of 3i, a venture capital and private equity firm headquartered in London, England and founder and president of Infocom International, Inc. in Plano, TX, a consulting firm for international technology marketing and sales.