

Boosting the productivity of knowledge workers

Eric Matson and Laurence Prusak

The key is identifying and addressing the barriers workers face in their daily interactions.



Are you doing all that you can to enhance the productivity of your knowledge workers? It's a simple question, but one that few senior executives can answer.

Their confusion isn't for lack of trying. Organizations around the world struggle to crack the code for improving the effectiveness of managers, salespeople, scientists, and others whose jobs consist primarily of interactions—with other employees, customers, and suppliers—and complex decision making based on knowledge and judgment.¹ The stakes are high: raising the productivity of these workers, who constitute a large and growing share of the workforce in developed economies, represents a major opportunity for companies, as well as for countries with low birthrates that hope to maintain GDP growth.

Nonetheless, many executives have a hazy understanding of what it takes to bolster productivity for knowledge workers. This lack of clarity is partly because knowledge work involves more diverse and amorphous tasks than do

production or clerical positions, where the relatively clear-cut, predictable activities make jobs easier to automate or streamline. Likewise, performance metrics are hard to come by in knowledge work, making it challenging to manage improvement efforts (which often lack a clear owner in the first place). Against this backdrop, it's perhaps unsurprising that many companies settle for scatter-shot investments in training and IT systems.

Since knowledge workers spend half their time on interactions, our research and experience suggest that companies should first explore the productivity barriers that impede these interactions. Armed with a better understanding of the constraints, senior executives can get more bang for their buck by identifying targeted productivity-improvement efforts to increase both the efficiency and effectiveness of the interactions between workers.

Among companies we've surveyed (see sidebar, "About the research"),

Knowledge workers make up more than **40 percent** of the US work force.

fully half of all interactions are constrained by one of five barriers: physical, technical, social or cultural, contextual, and temporal. While individual companies will encounter some obstacles more than others, our experience suggests that the approaches to overcoming them are widely applicable.

.....

Physical and technical barriers

Physical barriers (including geographic distance and differences in time zones) often go hand in hand with *technical* barriers because the lack of effective tools for locating the right people and collaborating becomes even more pronounced when they are far away. While these barriers are on the wane at many companies given the arsenal of software tools available, some large, globally dispersed organizations continue to suffer from them.

One remedy implemented by some organizations is to create “communities of practice” for people who

could benefit from one another’s advice—as the World Bank has done to help the 100 or so of its planners who focus on urban poverty to facilitate discussions on projects to upgrade slums. The communities feature online tools to help geographically dispersed members search for basic information (say, member roles and the specific challenges they are addressing) and sometimes use the latest social-networking tools to provide more sophisticated information, including whom the members have worked or trained with. By supplementing electronic tools with videoconferences and occasional in-person meetings, communities can bridge physical distances and build relationships.

.....

Social or cultural barriers

Examples of *social* or *cultural* barriers include rigid hierarchy or ineffective incentives that don’t spur the right people to engage. To avoid such problems, Petrobras, the Brazil-based oil major, created a series of case studies focused on real events in the company’s past that illuminate its values, processes, and norms. The cases are discussed with new hires in small groups—promoting a better understanding of how the organization works and encouraging a culture of knowledge sharing and collaborative problem solving. (To benefit further from such approaches, companies should include knowledge sharing in performance reviews and ensure that team leaders clearly communicate acceptable response times for information requests. The communities of practice described above can help too: employees are far more likely to give timely and useful responses to people in their network.)

About the research

This article summarizes the results of a research project under way since 2006. In the first phase, more than 200 knowledge workers at four organizations—the research institute Battelle, Educational Testing Service (ETS), Novartis, and the US Defense Intelligence Agency—kept daily logs of their knowledge interactions (more than 3,000 in total). Subsequently, we conducted field research and interviews with about 35 people at the original four companies plus three new ones: Ecopetrol, NASA, and Petrobras. For more on the first phase of research, see Al Jacobson and Laurence Prusak, “The cost of knowledge,” *Harvard Business Review*, November 2006.



Ecopetrol's technical forums break down the natural barriers between occupations and promote knowledge sharing across geographic boundaries.



© Oscar Javier Guerra Perdomo

Contextual barriers

Employees who face *contextual* barriers struggle to share and translate knowledge obtained from colleagues in different fields. Complex interactions often require contact with people in other departments or divisions, making it hard for workers to assess a colleague's level of expertise or apply the advice they may receive. Think of the disconnect that often occurs between a company's sales department and its product-development team over customer data. The two groups frequently struggle to communicate because they think and talk so differently about the subject (sales

staff devote attention to customer insights while developers focus on product specifications).

To overcome contextual barriers, organizations can rotate employees across teams and divisions or create forums where specialists in different areas can learn about one another's work. The US National Aeronautics and Space Administration (NASA), for instance, holds a biannual "Masters Forum" to share knowledge across disciplines. About 50 employees from different parts of the agency attend the meetings to hear other NASA colleagues talk about the tools, methods, and skills



NASA's biannual "Masters Forums," attended by about 50 employees from different parts of the agency, help transfer knowledge across disciplines.

© Kerry Ellis/NASA

they use in extremely complex projects. The sessions are lightly moderated and very interactive.

Similarly, managers at Ecopetrol, a Colombian gas and oil company, have found that technical forums not only break down the natural barriers between occupations but also facilitate knowledge sharing across geographic boundaries. Moreover, the forums build trust, which encourages employees to share information more freely.

The barrier of time

The final barrier is *time*, or rather the perceived lack of it. If valuable interactions are falling victim to time constraints, executives can use job roles and responsibilities to help identify the employees that knowledge workers should be interacting with and on what topics. In some cases, companies may need to clarify decision rights and redefine

roles to reduce the interaction burden on some employees while increasing it on others.

Boston-based Millennium Pharmaceuticals, which develops drugs for cancer treatment, did just that. When it found that researchers didn't have time to share lessons from their experiments, it created a small group of scientists to act as "knowledge intermediaries."

Based on meetings with company scientists as well as presentations, these employees summarize findings and submit them to an internal database. They also act as brokers by sharing knowledge across groups. The company reckons that this practice, combined with other initiatives, has boosted success rates for the company's research and reduced the time needed to make key decisions. ◉

Eric Matson is a consultant in McKinsey's Boston office; **Laurence Prusak** is a visiting scholar at the University of Southern California Marshall School of Business and a former senior adviser to McKinsey. Copyright © 2010 McKinsey & Company. All rights reserved.

¹For this article, we define knowledge interactions as those involving only the knowledge in people's heads, not data or basic information that can be downloaded through technology alone.



For more on knowledge worker productivity, see "The next revolution in interactions" and "Competitive advantage from better interactions," on mckinseyquarterly.com.