

Don't (always) talk to your neighbor

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Conventional wisdom among managers holds that employees helping each other can only be good for a company. Accordingly, firms spend money, time and effort to promote what's known as "knowledge transfer." Policies range from the popular (lavish company retreats) to the maligned (switching desks every six months so that everyone has a chance to sit near everyone else). Recently, firms have even begun creating their own in-house social networks.

But according to new research from the MIT Sloan School of Management, sharing is not necessarily good for the bottom line. Sometimes, encouraging employees to engage in "asocial learning" using resources such as on-site libraries, training materials or archives of past work — is just as good, if not better, for a company's overall



performance. Sheen Levine, a visiting scholar at Sloan and an adjunct research scholar at the Institute for Social and Economic Research and Policy at Columbia University, and his colleague Michael Prietula, a professor at the Goizueta Business School and the Center for NeuroPolicy at Emory University, have developed a model to quantify how much of each type of learning is optimal for a firm.

"Managers are constantly urged to make investments, both in capturing what employees know and having them socialize so that they transfer more knowledge," Levine says. "The question was: How important is this for the success of the company?"

The answer: It depends — on the employees, the company and the environment in which it operates. But the researchers say knowledge transfer is far from the unequivocal advantage it is often considered. They describe their results <u>in a paper</u> that will be published in the journal *Organization Science*.

Too much of a good thing?

Levine and Prietula based their research on a well-known global consulting firm, reasoning that such an environment would offer an especially rigorous test of their ideas. "Consulting firms are the epitome of knowledge-intensive companies, because all they have is knowledge," Levine says.

In consulting and many other industries — engineering, design, law and banking, to name a few — there is a strong belief in the benefits of knowledge sharing among employees. "Managers believe that people should be very cooperative toward one another," Levine says. "For example, you could be in Cambridge and call someone in Rio de Janeiro — you've never met this person — and say 'Hi, I'm working on this problem,' and the culture is they have to drop everything they're doing to



help you with your project."

But it's been unclear just how much these policies — along with other, expensive undertakings such as international exchange programs and interoffice sports leagues — contribute to companies' success. Given inside access to one firm, the researchers catalogued every employee, from associates fresh from college or business school to senior executives, in a computer model that Levine likens to the game "The Sims": a virtual world populated with interacting characters, or "agents." These agents were assigned to certain offices as well as working groups within offices, to reflect organizational structure.

"Agent-based modeling is an ideal tool here, because in cases where getting data might be difficult or detrimental to the organization, it lets you do a what-if analysis," says Kathleen Carley '78, a professor and director of the center for Computational Analysis of Social and Organizational Systems at Carnegie Mellon University, who was not involved in the research.

Using the model, the researchers ran trials, randomly presenting agents with tasks they might not be equipped to handle by themselves. There were four ways agents could obtain the knowledge necessary to complete the task: asocially, by looking up information or relying on personal experience; from a local acquaintance, such as a co-worker in the next cubicle; by calling a global company expert; or by going to the "market," paying an outside expert or engaging in an equal exchange with a coworker. The researchers also varied certain features of the company and its environment, such as how much support there was for social learning; how good the firm was at formally capturing employees' knowledge and making it available to others; and how quickly the external business environment was changing.

By manipulating these variables, Levine and Prietula could examine



social knowledge transfer's overall effect on the company's profits. For better or worse, they found it far less beneficial than many believe it to be.

The liabilities of lending a hand

According to Levine and Prietula's model, better support for asocial learning, including investing in informational resources and formally documenting best practices, diminished the benefits of social knowledge transfer among co-workers. In other words, social and asocial learning are substitutes, not complements, so it would be "suboptimal" to invest in both, Levine says.

The costs of social knowledge transfer can be measured in terms of opportunity costs — the idea that teaching someone takes time away from other, potentially more valuable tasks — but also in terms of direct costs. For example, in certain industries that change rapidly, it may actually be detrimental to have employees teach one another based on past experience, since their knowledge may be outdated.

"If you own a gas station, the way people bought gas in 2001 compared to 2011 is essentially the same. But if you're in Internet searching, that's a world of a difference," Levine says.

Opportunity costs vary based on the source of information and how valuable his or her time is. An open-door policy — the ability to call up anyone, in any office, and ask for help — may sound attractive, but what ends up happening is that certain employees become known as experts on a certain topic, and find themselves flooded with requests. These people also tend to be fairly high up on the executive scale, and so their time is worth more. Furthermore, such expert knowledge transfer is not without friction or error.



Levine and Prietula's model was also extra-conservative in that it didn't take into account social and personality factors, such as willingness to share (or not share). It assumed that no one was an "egoist," "backstabber" or otherwise acting in bad faith. "Yet we know that these things happen in organizations," Levine says, further strengthening the assertion that there are limits to the value of sharing information.

The researchers say future work will focus on refining and generalizing their findings, as well as examining other phenomena that involve social cooperation, such as open-source software.

"This is a case study based on a consulting firm," Carley says, "so it doesn't mean it will apply to every company in the world. ... But the fact that the costs [of social knowledge transfer] kick in sooner than people thought is surprising, and interesting."

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