When It's Okay to Mislead Your Employees



By Phanish Puranam, INSEAD Professor of Strategy and Organisation Design

Sometimes, everyone having the wrong map is preferable to some having the right map.

Imagine two teams of engineers working for the same innovative tech firm: one designing the processor for a new laptop, the other responsible for the screen. If either team gets it wrong, the prototype will fail. But given how closely and obscurely intertwined screen and processor are, it can be puzzling to sort out which team's design choices caused the failure, let alone what exactly caused it.

This is a common issue for organisations: innovation projects in which members or teams with vastly different specialties essentially collaborate at a distance. The distance need not be physical - speaking across specialisation boundaries is just as challenging. Such situations pose the danger of "learning superstitiously", that is, the drawing of false conclusions based on results derived from the mingled output of non-communicative agents.

How can organisations structure mutual learning so that interdependent players are able to make the best possible choices? In a recent research paper "How Initial Representations Shape Coupled Learning Processes" co-authored with Murali Swamy of University of Southern Denmark, published in *Organisation Science*, we analysed computational models of interacting agents to show that standardising initial assumptions across the collaborators—without worrying too much about accuracy—is one powerful way organisations can set the stage for a successful learning process. A commonly held initial plan, even if inaccurate, can beat no plan or a mix of good and bad plans held by the collaborators.

Compatibility at random?

As a PhD student, I encountered what is considered the must-read for modelers in organisations and management: *An Introduction to Models in the Social Sciences*, by Charles A. Lave and James G. March. One chapter of the book had a charming parable in which a boy and girl walk to school, and would ideally like to walk on the same side of the street, but don't want to explicitly ask or appear to want to (these are shy teenagers from the sixties. Today, they would probably text). Suppose each randomly picks a side, and decides to repeat the choice if they end up walking on the same side or switch next morning if they don't--aren't they guaranteed to "find" each other and settle into a romantic (if silent) pattern of shared walks to school everyday? The surprising answer is no. If you think about it, it should become clear that they could easily fall into a pattern of zig-zagging past each other, experiencing morning after morning of disappointment.

In this story, neither side of the street is inherently more attractive. What matters is if the other person is on the same side as you. This is what we call a "pure coordination" problem. But innovation is different. Often we care not only about both making compatible choices, but also about making a compatible choice that's a good choice. The processor and the screen in our laptop design example must work together, but to be a successful innovation they must work *well* together (and better than the competitor's product)! We call these "search" problems.

The best milkshake to share...

So now let's imagine there are shops that sell chocolate milkshakes on both sides of the street. It's not unusual for young folks to wander into one of these shops for a malt after school. Our young boy and girl would enjoy

seeing the other there, though they want to do this "casually", without appearing to try (they are still shy). But they would also love to discover the shop that makes the best milkshakes! (Pocket money is scarce). Now we have a situation that looks like the collaborative innovation problem: we want not just compatible choices, but also the best performing combination of compatible choices.

Here's where the power of incorrect but shared beliefs comes in. Suppose the boy had a good hunch about which shop made the best milkshakes but the girl did not. He shows up alone, and leaves disappointed with that glorious milkshake undiscovered, and with a lower likelihood of returning to this shop. The same happens if the girl has the good hunch, not the boy. If neither has any hunch at all and they both just pick at random, there is still an uncomfortably high chance that one of them had in fact found the best shop, but since the other wasn't there, never realised it (because they don't order the milkshake unless they see each other at the shop).

But suppose they both had the same hunch as to which shop made the best shakes? If they are right, problem solved and the story has a happy ending. But even if they are wrong (and this is the punchline) they escape the "false negative" problem where only one of the pair finds the best shop and erroneously crosses it off the list. This actually increases their chances of finding the right shop and each other in future trials, relative to all other cases. That's the power of incorrect but shared beliefs over no beliefs or a mix of good and bad beliefs.

Our model produces this insight with much more rigor, if substantially less romance.

Managing coupled learning processes

Our analysis points to several intriguing ways in which a manager could improve the efficacy of coupled learning processes. Intriguingly, the manager needn't have more technical knowledge than his subordinates to add value. Organisation design, to be useful, need not be particularly intelligent design. By merely laying out a common plan (an initial shared belief), even if it is wrong, the overall process of search can be improved.

In addition, managers can use incentives as levers to control learning rates and prevent false negatives. When pay is too closely tied to performance, employees may lose the taste for trial-and-error that characterises effective organisational learning. Albert Einstein is thought to have defined insanity as "doing the same thing over and over again and hoping for different results". But in coupled learning, the same alternative that failed yesterday could succeed today, depending on whether your counterpart has solved the problem on their end.

Rewarding persistence as well as performance can help collaborative innovation projects avoid dead ends.

<u>Phanish Puranam</u> is the Roland Berger Chaired Professor of Strategy & Organisation Design at INSEAD. He is also Academic Director of INSEAD's PhD programme.

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About the author(s)

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