

Find the Right Pace for Your AI Rollout

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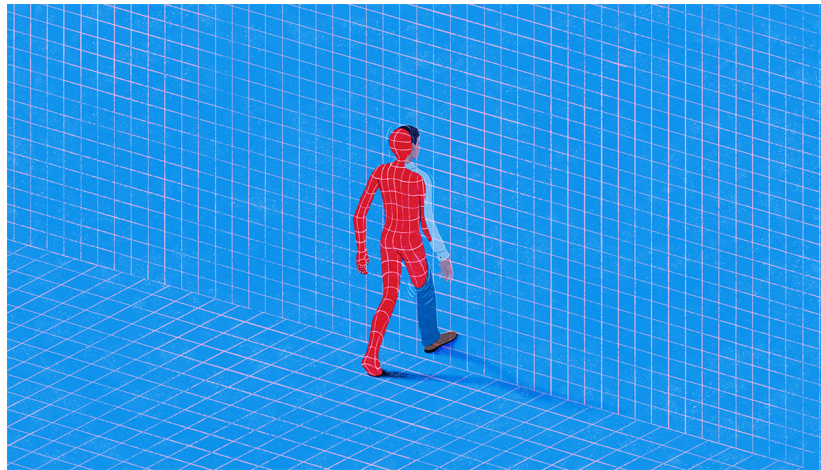


Illustration: Daniel Liévano

Summary. Implementing AI can introduce disruptive change and disfranchise staff and employees. When members are reluctant to adopt a new technology, they might hesitate to use it, push back against its deployment, or use it in limited capacity – which affects the benefits an organization gains from using it in the first place. Organizations often don't see the problems coming, and rollout a new tool too quickly only for it to run into major barriers. To navigate this process, we propose a three-step approach: 1) assess the impact of an AI solution, 2) identify barriers to adoption, and 3) identify the appropriate pace. [**close**](#)

Machine learning, deep learning, and other artificial intelligence technologies promise to significantly reshape the workplace.

They can reduce redundant tasks, automate work, and improve organizational capabilities. Yet for most companies, the potential

of these technologies is still out of reach. As a recent census study shows, less than 7% of organizations have adopted AI technologies. Why?

Based on our ongoing research with dozens of companies, AI solutions most frequently fail to gain adoption because leaders worry how the deployment of AI might affect their company. They fear the new technology might displace work, disrupt workplace dynamics, or require new skills to master, and they hesitate.

These aren't unfounded anxieties. Implementing AI can introduce disruptive change and disfranchise staff and employees. When members are reluctant to adopt a new technology, they might hesitate to use it, push back against its deployment, or use it in limited capacity — which affects the benefits an organization gains from using it in the first place. Organizations often don't see the problems coming, because affected employees do not always share their true views and concerns with managers upfront.

But walking up to the edge of deploying new technology only to lose your nerve — wasting time and resources — isn't the solution. Rather, leaders need to strategically pace the deployment of AI technologies. Too often, organizations spend significant resources developing or acquiring transformative innovations, but don't think enough about how to successfully deploy them.

To navigate this process, we propose a three-step approach to find the strategic pace that will allow companies to achieve the benefits of AI solutions without enduring the pain of a mismanaged deployment. It will do so by helping leaders understand who within an organization might be affected by an AI solution, and unpack affected employees' ability and willingness to adopt a given solution.

Step 1: Assess the Impact of an AI solution

Companies often struggle to figure out who will be impacted by an AI solution. They typically conduct broad surveys or ask managers to guess who will be impacted, but our research suggests these efforts aren't sufficient and often overlook critical components. Instead, they need to get into the weeds to determine which tasks and roles a given AI solution will change, and what the impact will be. Once that's established, it will be easier to decide what kind of pacing strategy makes sense.

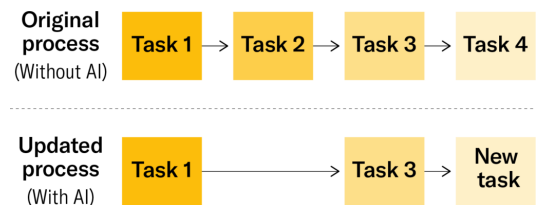
Identify tasks

In order to plan for how an AI solution might change, you need to understand which tasks it will touch. That requires first mapping how processes are done now, and then talking with vendors about how they will likely change. Companies should push vendors for detailed specifications of their AI solution and which tasks might be impacted by their solution. This sometimes requires asking hard questions of vendors: "Where have you failed to successfully deploy this technology?" "Why did that deployment fail?" Vendors should act as partners in figuring out how a given solution might affect the tasks their employees conduct.

The point of this exercise is to grasp how an AI might replace or alter existing tasks, or introduce new tasks or processes. Identifying new tasks is especially critical, as failure to account for these tasks may impact your organization's ability to deploy AI. For example, many health systems have tried to automate some of the work conducted by radiologists only for the radiologists to realize they needed to double check all the output produced by AI — and that their workload actually increased.

Identify Impacted Tasks

Map out the sequence of tasks currently used to complete a given process and then map out the sequence of tasks that will be used to complete the same process after adopting AI. This side-by-side comparison helps identify the AI's task-level impact, which could include eliminating, adding, or modifying tasks relative to your original process.



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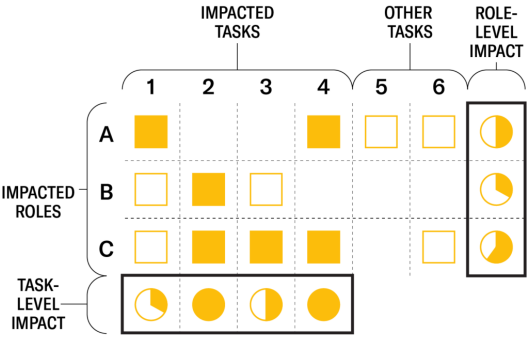
Identify roles

After you identify which tasks are impacted by an AI solution, look at who is responsible for those tasks, and create a comprehensive picture of whose job will change — including roles that appear to only be slightly impacted. Overlooking seemingly minor effects can create huge problems. For example, we observed a hospital attempt to deploy an AI solution to automate patient scheduling. The company had failed to note that although scheduling was a minor part of the nurses' role, they were involved in the process of prioritizing patients. The organization failed to understand nurses' position on the technology and as a result, nurses pushed back against more fully deploying it.

We suggest populating a matrix that maps impacted tasks by role. To do this efficiently and thoroughly, you want to talk with managers that oversee the impacted processes and understand who performs these tasks. Be sure to ask about inputs and hand offs to avoid missing an important intermediary role. For example, if the hospital leaders spearheading the efforts to deploy AI had asked office managers about inputs to their scheduling process, they would have quickly understood that nurses were involved in the process.

Calculate Task and Role Level Impact

To compute task-level impact, place a box under each task for every individual employee role involved in completing the task, then shade the boxes where the new AI tool will change an employee's experience of that task. The task-level impact is the number of impacted roles divided by the total number of roles. To compute role-level impact, include all of the tasks a particular role performs, including those not impacted by the AI; role-level impact is the number of impacted tasks divided by the number of total tasks performed by each role.



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Calculate impact by task and role

Once the matrix is populated, it's time to assess how deeply an AI solution may impact aspects of your organization — how many roles, and tasks per role, are affected. From our observations, an AI solution becomes exceedingly difficult to deploy when it impacts at least 1/3 of the tasks assigned to one specific role *or* when it affects at least three different roles within your company (even if the solution only has a minor effect on the tasks performed by these three or more roles). In these situations, your organization should consider strategies for pacing deployment of an AI solution.

Step 2: Identify Barriers to Adoption

Not every deployment requires a slower pace. But if your organization is deeply affected, understanding affected members' ability and willingness to adopt AI is essential to determining the right pace. Leaders need to talk with employees about how they feel about the coming changes, and suss out potential barriers.

Barriers of ability are skill-based, centering around whether employees are sufficiently trained and capable of performing the required tasks. Barriers of willingness are more emotional, often stemming from fears that the new technology either is “too good” and may eventually make their role less meaningful or is “not good enough” and may negatively impact performance.

The exact questions you ask may change slightly depending on your organization's circumstances, but we've found a few that tend to work well. As a general principle, questions are most effective when phrased in a neutral and supportive manner.

Role-Level Barriers

If you found that particular roles are going to change significantly, you'll want to focus on the individual currently filling the role. These questions are designed to help you gauge that individual's ability and willingness to adopt the new technology. These conversations are often best conducted by the team that will be responsible for the deployment.

Ability You'll want to assess how well the person in a role understands what using the new tech effectively will require of them. If they don't know, that's okay — you don't want to make them feel like they're suddenly behind or unqualified. The point, instead, is to figure out whether you need to offer training to get people up to speed.

Ask: “What will this new technology require you to do that is new or different?”

You'll also want to learn more about the skills people already have. Prompt people to talk about their relevant background and training, as well what preparation they feel they lack.

Ask: “What has prepared you to use this technology?”

Willingness Providing space to talk about how the person in the role feels about the new technology they're being asked to use can also show you trust them. Genuinely asking simple, direct questions — and being interested in their responses — is good way to demonstrate your respect.

Ask: “Do you have concerns about using this new technology?”

You also want to try to understand how people feel the new tech may impact their performance. For instance, are they worried it may introduce errors or slow their work down?

Ask: “What might prevent you from using this technology?”

Task-Level Barriers

If you're concerned about the effects of how tasks will change, it is essential to understand the specific barriers arising from the coordination and interdependencies between the people involved in completing a task.

Ability You'll want to map out the full system of individuals who need to work together for a task to be accomplished successfully. Do the necessary communications channels already exist between these individuals?

Ask: “Who do you depend on to complete this task, and how will you work together?”

A new AI solution may require people to adapt their role. As links in a chain, you want to be sure everyone feels able to deliver.

Ask: “How will this new technology change the way you interact with others to complete this task?”

Willingness You don't want to ask people to “out” other employees, but you do want to know if there are common or high-level concerns. Many people feel more comfortable expressing their true feelings when speaking generally or talking about others.

Ask: “Do you think others have concerns about using this new technology?”

Are there concerns or reservations about working with others on the new tech to do their work? Try to uncover any challenges you may have overlooked.

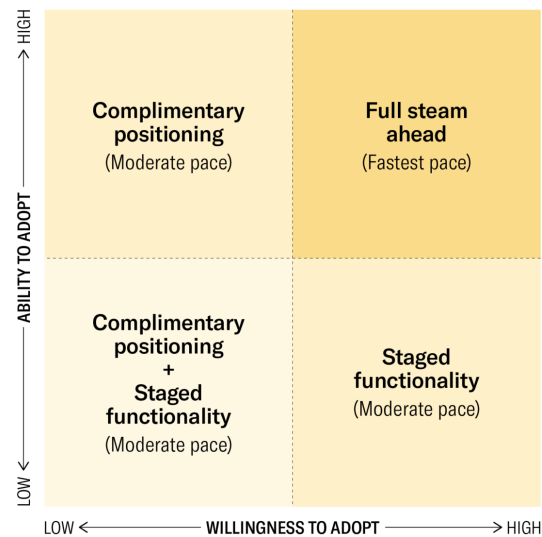
Ask: “How will this new technology impact the performance of this task?”

Step 3: Identify Appropriate Pace

Now, hopefully, you understand if your employees are able and willing to adopt an AI solution. Based on your employees’ responses, you map the assessed *Ability to Adopt* and *Willingness to Adopt* to the corresponding matrix quadrant and determine the recommended approach to deployment.

Strategically Pace AI Deployment

Companies can increase AI adoption and impact by implementing specific pacing strategies based on employee willingness and ability to adopt the AI.



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When ability and willingness are both high, you can move on and fully deploy an AI solution. When *Ability to Adopt* is low, we recommend that managers use *Staged Functionality* to slow the pace. This involves sequencing the rollout of features embedded within the technology so as not to overwhelm the ability of the organization to absorb the new technology.

We saw this work effectively for an insurance company looking to roll out AI to help identify fraud. At first, the compliance team did not know how to use the AI tool, as it required them to program and adjust the AI solution to account for local differences in rules and actions. To address this issue, managers only rolled out a couple of use cases, which applied broadly and did not require adjustment. The company paid to upskill members of the compliance team, who shifted roles from monitoring for potential fraud, to programming AI. By introducing the technology in more bite-sized phases, managers have sufficient time to provide proper training to individuals in impacted roles and to establish the necessary procedures and practices. At the same time, individuals asked to adopt new technologies are not required to make abrupt or drastic changes, but rather are empowered to develop any additional skills at a comfortable pace.

When *Willingness to Adopt* is low, we recommend that managers use *Complementary Positioning* to introduce a solution as a tool for employees, rather than a replacement, thereby slowing the pace of deployment and improving employee satisfaction. This involves transparent explanations and demonstrations of the new technology so that employees can clearly see how the new technology will help them increase performance or make their job easier.

For example, AB InBev use machine learning and AI to help brewers determine when to filter beer. In the future AI might automate more of the brewing process, but currently brewers use AI as a tool to complete their work. Managers should help employees see the future value of new skills and familiarity with the new technology for their own upward career trajectory, both inside the organization or in opening other opportunities in the

future. When both ability and willingness are low, you should both stage the roll out of functionality and use complementary positioning.

When you invest in developing or adopting an AI solution, you want to ensure it delivers the expected benefit. Thinking through the process and pace by which you deploy an AI solution is a critical aspect to achieving that benefit. Our approach will help you deploy AI in a way that achieves benefit over time and reduces the cost of disruption.

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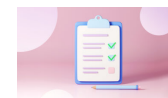
Rebecca Karp is an Assistant Professor in the Strategy Unit at Harvard Business School. Her research examines how firms execute on their strategies and grow. In particular, she focuses on the role innovation plays in supporting strategy execution, fostering change in organizational work practices and in shaping the way firms grow.

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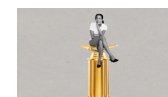
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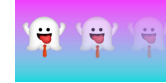
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