The model deployment workflow is important for many experts because it hinges on some key ideas which we discuss below. In having a workflow, we ultimately try to prevent these events from occurring in the future.

Bad Data

Having data preparation and cleaning will reduce the chance of producing bad data for your model. As the saying goes, "Garbage in, garbage out". Meaning, if your data is bad before you train your model, do not expect your model to perform well.

Unable to Repeat Results

With consistency, it is not just for data preparation, but for the entire workflow. When the workflow is structured in a repeatable way, it will prevent errors, such as any surprise when moving your work into the final stages of production.

Not Enough Resources

Having a workflow also provides a way to see how your model reacts to different resources. Because it is repeatable, you can run the workflow on better machines, which reduces the time it takes to complete. You can also calculate the costs from the workflows when you iterate, providing better estimates of product timelines.

Model Complexity

Lastly, having a workflow allows you to understand the entire process in a transparent way. If there is a bad metric or miscalculation, you can quickly change what needs to be done in order for the workflow to be rerun.