

Phase 5: Communicate Results

After executing the model, the team needs to compare the outcomes of the modeling to the criteria established for success and failure. In Phase 5, shown in Figure 2-7, the team considers how best to articulate the findings and outcomes to the various team members and stakeholders, taking into account caveats, assumptions, and any limitations of the results. Because the presentation is often circulated within an organization, it is critical to articulate the results properly and position the findings in a way that is appropriate for the audience. As part of Phase 5, the team needs to determine if it succeeded or failed in its objectives. Many times people do not want to admit to failing, but in this instance failure should not be considered as a true failure, but rather as a failure of the data to accept or reject a given hypothesis adequately. This concept can be counterintuitive for those who have been told their whole careers not to fail.

However, the key is to remember that the team must be rigorous enough with the data to determine whether it will prove or disprove the hypotheses outlined in Phase 1 (discovery). Sometimes teams have only done a superficial analysis, which is not robust enough to accept or reject a hypothesis. Other times, teams perform very robust analysis and are searching for ways to show results, even when results may not be there. It is important to strike a balance between these two extremes when it comes to analyzing data and being pragmatic in terms of showing real-world results. When conducting this assessment, determine if the results are statistically significant and valid. If they are, identify the aspects of the results that stand out and may provide salient findings when it comes time to communicate them. If the results are not valid, think about adjustments that can be made to refine and iterate on the model to make it valid. During this step, assess the results and identify which data points may have been surprising and which were in line with the hypotheses that were developed in Phase 1.

Comparing the actual results to the ideas formulated early on produces additional ideas and insights that would have been missed if the team had not taken time to formulate initial hypotheses early in the process. By this time, the team should have determined which model or models address the analytical challenge in the most appropriate way. In addition, the team should have ideas of some of the findings as a result of the project. The best practice in this phase is to record all the findings and then select the three most significant ones that can be shared with the stakeholders. In addition, the team needs to reflect on the implications of these findings and measure the business value. Depending on what emerged as a result of the model, the team may need to spend time quantifying the business impact of the results to help prepare for the presentation and demonstrate the value of the findings.

Doug Hubbard's work [6] offers insights on how to assess intangibles in business and quantify the value of seemingly unmeasurable things. Now that the team has run the model, completed a thorough discovery phase, and learned a great deal about the datasets, reflect on the project and consider what obstacles were in the project and what can be improved in the future. Make recommendations for future work or improvements to existing processes, and consider what each of the team members and stakeholders needs to fulfill her responsibilities. For instance, sponsors must champion the project. Stakeholders must understand how the model affects their processes. (For example, if the team has created a model to predict customer churn, the Marketing team must understand how to use the churn model predictions in planning their

interventions.) Production engineers need to operationalize the work that has been done. In addition, this is the phase to underscore the business benefits of the work and begin making the case to implement the logic into a live production environment. As a result of this phase, the team will have documented the key findings and major insights derived from the analysis. The deliverable of this phase will be the most visible portion of the process to the outside stakeholders and sponsors, so take care to clearly articulate the results, methodology, and business value of the findings. More details will be provided about data visualization tools and references in Chapter 12, “The Endgame, or Putting It All Together.”