

Advantages and Disadvantages of Process Models

Process models are the structure and framework that are used to execute big, complex projects. They help to manage the complexity and keep everything on schedule and on budget.

The AAVAIL project will use *design thinking* as the organizing process model. Design thinking is both flexible enough and structured enough that it can be applied easily across a diverse set of business problems.

Before you think about model-specific questions like *should I use a frequentist or Bayesian paradigm?* or [is there enough data for a neural network?](#) you should take time to identify and clarify the business problem. This is always the first step to take in any process model, including design thinking.

The major disadvantage to using process models is the fact that there are several to choose from, and it is possible that none of the existing models are an ideal fit for you or your team. Another disadvantage of process models is that strict adherence to a particular model could promote a tendency to follow recipes in a rote fashion, which could stifle creative new ways to address business opportunities.

Process Model Review

Before you begin with your work with AAVAIL, the rest of this course will be an overview of several different types of process models used by data scientists. We will also cover the integration of data science practices with the design thinking methodology.

Although these courses are organized according to design thinking principles, it is important that you understand that *real-world business organizations use many different types of business models, and you need to be familiar with them.*