Jason Santucci

December 5, 2022

# Design Thinking

As a manager or an executive, it is important to rely on different key indicators and figures to drive business decisions. Relying on a team to take data and create predictive and prescriptive insights on the data. These analytics and insights can extend to different prospects of the business such as marketing, sales, management, and finance. These different prospects of the business are gaining insights by adopting different data projects to answer questions. However, there is a typical problem that these projects have is that they take too much time. In the past it could take up to two years to complete a project and answer the original question. This process is extremely inefficient and very costly. The past few years, data scientists have reduced the duration of this process. There are also several reasons that a project will fail such as; the project is too complicated, there is no correct or useful available data, the concept makes little sense. As a data scientist it is important to note that complex problems can have simple solutions. And trusting your intuition and gut feeling is important while working on different projects.

Looking at the requirements and the governance of the data is key to a successful project. These requirements should be derived from the actual data. Getting an idea from general descriptive statistics can help further your understanding of the data. With a better understanding to make more practical business questions to lead to better business decisions. This stems from just keeping the solution to the problem simple. Noting that there are problems that require more in depth and complex solutions. But also trying to solve problems by looking at the simple answers. Almost as an Occam’s Razor thought.

As a data scientist, I should be striving to constantly build better machines and systems. A way to do this is to quantify how the system or algorithm is performing in real world scenarios. Feedback loops are a good indicator of whether the system is working. Allowing people to give feedback in different ways is helpful. Whether it is a thumbs up or thumbs down, or a starred system. Data scientists can get a better understanding of is the machine actually performing as intended and change the alignment and the scope of the system. And if the machine is not, there is feedback to fix and repair the system. This system of constant repair should increase the usefulness of the system and adapt with the changes of the firm or the industry.

The goal and outputs of the machine and system is not always the desire of the human using the machine. Artificial intelligence systems while do not have cognitive opinions, develop outcomes and predictions based on data. Humans have similar processes, but instead make these predictions based on observations. While humans and systems may have different opinions about an idea or topic. It is important to keep in mind that artificial intelligence is a complex tool that we use. And that artificial intelligence is not something that needs to be controlled, rather something that can be collaborated with.