Basics of AI, Data Science and Machine Learning / Data Science Introduction and Types of Machine Learning

Methodologies

Many projects fail to meet expectations. Project failure may be a result of:

- poorly managed expectations.
- misunderstanding of the business problem.
- selecting a project that did not have potential to provide significant value.
- unexpected technical challenges or lack of skills.
- a lack of commitment from the stakeholders
- many different reasons.

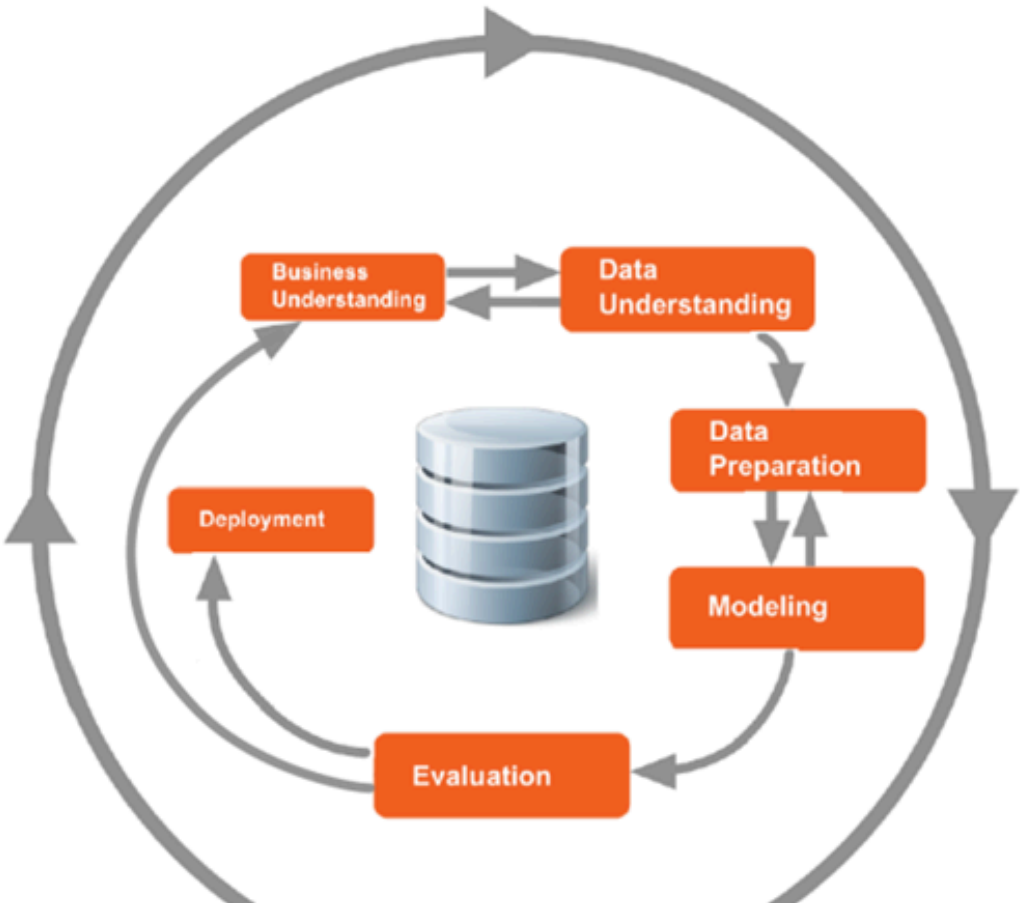
Some organizations are simply better at this than others, and we can increase our success rate by learning about successful methodologies.

There is more than one good methodology, and they should be customized for the organization.

The best methodologies are consistent with the agile manifesto for software development.

The two types of methodologies that we are primarily interested in here, are those that focus on the program level, and those that focus on the project level.

A Project level methodology may help make sure people focus their efforts on the right task at the right time, but may not address the organizations development. In a later lesson, we discuss CRISP-DM as a good project methodology.



A Program level methodology will oversee many projects. It may help ensure that valuable projects are selected and supported. It will address standards that apply to multiple projects. It will help identify the right people and roles, and address the organization's development in terms of data science maturity and upskilling of employees. It may also include the project methodology.

Here, we take a brief look at a methodology that encompasses many of the most important areas at both the program and the project level.

	Business Case	Executive Sponsorship	Certification / Adoption	Architecture / Adoption
Plan	• Identify how the project will measured in terms of ROI • Identify use cases and feasibility	• Identify key stakeholders • Identify owners • Map influencers	• Identify skills gap • Commit to enablement plan	• Define initial scope • Plan initial architecture
Build	• Build cross-functional team that shares knowledge and expertise	• Connect the team and stakeholders	• Complete training and enablement	• Complete implementation • Monitor and track resources
Review	• Document ROI • Confirm qualitative benefits • Prioritize enhancements	• Explain opportunities and ROI • Secure resources to broaden the program	• Track completion of training, certifications, and success • Plan to enable more people	• Close outstanding issues • Plan for growth

Large or ambitious programs rely heavily on both 'Executive Sponsorship' and 'Certification / Adoption' or upskilling employees and growing the data science maturity of the organization.