CS490DSC Data Science Capstone Deployment

Jean Honorio
Purdue University
Important

• Please read this together with the case study
• The case study will discuss a fictitious health insurance company called the Amazing Health Network
Phase 6: Deployment

• Creation of the model is generally not the end of the project

• Even if the purpose of the model is to increase knowledge of the data, the knowledge gained will need to be organized and presented in a way that the customer can use it

• This phase can be
  - as simple as generating a report
  - as complex as implementing a repeatable data mining process across the enterprise
1. Plan deployment

• This task takes the evaluation results and determines a strategy for deployment

• If a general procedure has been identified to create the relevant model(s), this procedure is documented here for later deployment

• Summarize the deployment strategy, including the necessary steps and how to perform them
Phase 6: Deployment

- Business Understanding
- Data Understanding
- Data Preparation
- Modeling
- Evaluation
- Deployment

- Plan Deployment
  - Deployment Plan
- Plan Monitoring and Maintenance
  - Monitoring and Maintenance Plan
- Produce Final Report
  - Final Report
  - Final Presentation
- Review Project
  - Experience Documentation
2. Plan monitoring and maintenance

• Monitoring and maintenance are important issues if the data mining result becomes part of the day-to-day business and its environment.

• The careful preparation of a maintenance strategy helps to avoid unnecessarily long periods of incorrect usage of data mining results.

• In order to monitor the deployment of the data mining result(s), the project needs a detailed monitoring process plan.

• This plan takes into account the specific type of deployment.

• Summarize the monitoring and maintenance strategy, including the necessary steps and how to perform them.
Phase 6: Deployment

- Plan Deployment
  - Deployment Plan
- Plan Monitoring and Maintenance
  - Monitoring and Maintenance Plan
- Produce Final Report
  - Final Report
  - Final Presentation
- Review Project
  - Experience Documentation
3. Produce final report

- At the end of the project, the project team writes up a final report.
- Depending on the deployment plan, this report may be:
  - only a summary of the project and its experiences (if they have not already been documented as an ongoing activity)
  - or it may be a final and comprehensive presentation of the data mining result(s)
3.1. Final report

• This is the final written report of the data mining engagement
• It includes all of the previous deliverables, summarizing and organizing the results
3.2. Final presentation

• There will also often be a meeting at the conclusion of the project at which the results are presented to the customer
Phase 6: Deployment
4. Review project

• Assess what went right and what went wrong, what was done well and what needs to be improved

• Summarize important experience gained during the project. For example:
  - pitfalls
  - misleading approaches
  - or hints for selecting the best suited data mining techniques in similar situations

• In ideal projects, experience documentation also covers any reports that have been written by individual project members during previous phases of the project