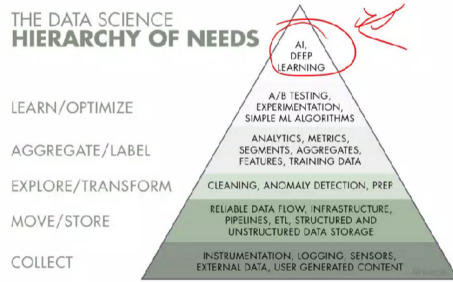


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The AI Hierarchy of Needs



Pretty self-descriptive picture, but some break downs:

1. Collecting - parsing raw data via different api and tools
2. Move and store - data transportation to data lakes or warehouse
3. Cleaning data from garbage and empty data
4. Labeling - classifying, preparing "right" answers for data examples
5. Optimizing data for learning
6. AI learning - usually further learning or relearning or transfer learning of ready weights of someone's shit

Key Roles for a Successful Analytic Project

Role	Description
Business User	Someone who benefits from the end results and can consult and advise project team on value of end results and how these will be operationalized
Project Sponsor	Person responsible for the genesis of the project, providing the impetus for the project and core business problem, generally provides the funding and will gauge the degree of value from the final outputs of the working team
Project Manager	Ensure key milestones and objectives are met on time and at expected quality.
Business Intelligence Analyst	Business domain expertise with deep understanding of the data, KPIs, key metrics and business intelligence from a reporting perspective
Data Engineer	Deep technical skills to assist with tuning SQL queries for data management, extraction and support data ingest to analytic sandbox
Database Administrator (DBA)	Database Administrator who provisions and configures database environment to support the analytical needs of the working team
Data Scientist	Provide subject matter expertise for analytical techniques, data modeling, applying valid analytical techniques to given business problems and ensuring overall analytical objectives are met

Personnel

Learn the Business Domain

- Determine amount of domain knowledge needed to orient you to the data and interpret results downstream
- Determine the general analytic problem type (such as clustering, classification)
- If you don't know, then conduct initial research to learn about the domain area you'll be analyzing

Learn from the past

- Have there been previous attempts in the organization to solve this problem?
- If so, why did they fail? Why are we trying again? How have things changed?

Resources

- Assess available technology
- Available data – sufficient to meet your needs
- People for the working team
- Assess scope of time for the project in calendar time and person-hours
- Do you have sufficient resources to attempt the project? If not, can you get more?

Frame the problem.....Framing is the process of stating the analytics problem to be solved

- State the analytics problem, why it is important, and to whom
- Identify key stakeholders and their interests in the project
- Clearly articulate the current situation and **pain points**
- Objectives – identify what needs to be achieved in business terms and what needs to be done to meet the needs
 - What is the goal? What are the criteria for success? What's "good enough"?
 - What is the failure criterion (when do we just stop trying or settle for what we have)?
- Identify the success criteria, key risks, and stakeholders (such as RACI)

Tips for Interviewing the Analytics Sponsor

- Even if you are "given" an analytic problem you should work with clients to clarify and frame the problem
 - You're typically handed solutions, you need to identify the problem and their desired outcome



Sponsor Interview Tips

- Prepare for the interview – draft your questions, review with colleague, team
- Use open-ended questions, don't ask leading questions
- Probe for details, follow-up
- Don't fill every silence – give them time to think
- Let them express their ideas, don't put words in their mouth, let them share their feelings
- Ask clarifying questions, ask why – is that correct? Am I on target? Is there anything else?
- Use active listening – repeat it back to make sure you heard it correctly
- Don't express your opinions
- Be mindful of your body language and theirs – use eye contact, be attentive
- Minimize distractions
- Document what you heard and review it back with the sponsor

Omg talking to people wtf

Good interview:

1. Questions must be open ended. No frames or options, cause people tend to choose rather than create their own answer
2. Don't fill pauses, let the person think
3. Don't show your ideas. Firstly, make sure you listened everything
4. No arguments
5. Better to record

- **Formulate Initial Hypotheses**

- ▶ $IH, H_1, H_2, H_3, \dots H_n$
- ▶ Gather and assess hypotheses from stakeholders and domain experts
- ▶ Preliminary data exploration to inform discussions with stakeholders during the hypothesis forming stage

- **Identify Data Sources – Begin Learning the Data**

- ▶ Aggregate sources for previewing the data and provide high-level understanding
- ▶ Review the raw data
- ▶ Determine the structures and tools needed
- ▶ Scope the kind of data needed for this kind of problem

Bank case:

1. Decrease churn of clients by 5%(good enough)
2. Determine why they are leaving?
3. Are they worth retaining?
4. How to prevent?
5. Find past solutions.
6. What data can be taken from clients?