Three Advice From Tao Xie

YU Le 3 Jan, 2015

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- Advice on reading papers
- Advice on Mastering Communication Skills
- Advice on making submission deadlines

Advice on reading paper

 Problem: We trend to forget after reading a lot of paper. How to solve this problem?

Advice on reading paper

- Method: Maintain a document, write a 5 line summary for each paper we read.
- Benefits: Next time, you do not need to read the paper again, just look for the 5 line summary.

Advice on reading paper

Problem: How to read a paper?

- Quick paper reading would be a useful skill.
 - Read a paper for 15-20 minutes.
- Step 1: read the abstract.
- Step 2: read the conclusion.
- Step 3: read the introduction (Very fast)
- Step 4: read the example section. Get the main idea.
- Step 5: Skim through the framework, implementation and evaluation details.

 Problem: Many people have problem in communicate with others, especially in terms of lack logical organisation.

- Problem one: Too many details. Fail to describe the problem in a top-down way.
- Bad Example:
 - I have a problem XXXXXXXXX. And YYYYYY, even ZZZZZZZZ...

Good Top-Down Example:

I would like to discuss with you on an encountered problem that can negatively affects the effectiveness of our approach, particularly in terms of the MMM metric.

The problem is caused by XXXXXXX (high-level description of the problem). For example, YYYYYY. ZZZZZZZ.

- Is Top-Down way enough? NO!
- Problem Two: You need to provide context. Let others know the background and context of this problem.

Good Example:

Let me first remind you that the effectiveness of our approach is measured based on n metrics, among which the MMM metric

However, I encountered a problem that can cause bad values for the MMM metric. The problem is due to XXXXXXX...

- How to answer question with logical organisation?
 - "YES" or "No" question.
 - Q: Do you use?
 - A: My answer is both Yes and No. The reason for me to say Yes is The reason for me to say No is ...
 - Normal question.
 - Q: What is the method you use to solve problem ...
 - A: I used two metrics. The first metric is X/Y where X is ... and Y is ...
 In particular, I measure X with faults seeded with mutation
 testing, The second metric is...

Advice on making submission deadlines

 Problem: Sometimes we are not active or responsive enough to drive research preparation of a certain submission draft.

Advice on making submission deadlines

- Tip One: Students need to early on take full advantage of the advisor in helping improve the draft and the work.
- Step1: Student should write the whole draft. Train capability.
- Step2: Gather feedback as early as possible. We can gather feedback and fix bugs when finishing some sections.

Advice on making submission deadlines

- Tip Two: Be responsive to advisor.
 - Response e-mail as quick as possible.