Combatting Decision Paralysis

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What is decision paralysis?

Decision paralysis
inability to make a choice or take action due to over-thinking, resulting in a state of paralysis
Decisions in graduate school (and beyond)
when decision paralysis can affect you

Which advisor
Which collaborators
Which research project
The “right” research project
What developing environment
What papers to read and include
What software to use to test, implement, benchmark
Design + implementation decisions
When to stop optimizing
What to do each week

When to ask for help
What graph plotting software
How to structure a paper
How to present an idea
How to address reviewer concerns
Why do we experience decision paralysis?

- Information overload
- Avoid wasted effort
- Desire to optimize
- Model minority
- Fear of doing the wrong thing
- Imposter’s syndrome
Rabbit holes
Stalemates due to decision paralysis

“It’s been done before” (so I should do nothing)

“I don’t really know how to write this paper” (so I should do nothing)

“I don’t know know how to implement this” (so I should do nothing)

“Doing nothing is better than doing the wrong thing”
Rabbit holes
Stalemates due to decision paralysis

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“Doing nothing is better than doing the wrong thing”

Just do something
It is ok to weigh decisions properly

analyze, think, sanity check, game plan

do, build
Becoming stuck in the decision phase is bad

- **decision paralysis**
  - fear, imposter's syndrome, etc.

- **analyze, think, sanity check, game plan**

- **do, build**
Combatting decision paralysis

- Analyze, think, sanity check, game plan
- Do, build
Combatting decision paralysis

Honest self-assessment

Am I spending too much time in the current state?
- How much or little progress has been made due to staying in the same state?
- Is this acceptable for the current stage of the project?

What can I do to help make a decision?
- How can I gather more data?
  Examples: quick simulation, back-of-envelope calculations

How can I briefly explore a decision?
- Move yourself to the “do, build” phase
- Determine actions to escape the paralysis rut
Combatting decision paralysis

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Am I spending too much time in the current state?

<table>
<thead>
<tr>
<th>Phase</th>
<th>Analyze</th>
<th>Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recon (project selection)</td>
<td>90%</td>
<td>10%</td>
</tr>
<tr>
<td>Implementation</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>Paper writing</td>
<td>50%</td>
<td>50%</td>
</tr>
</tbody>
</table>

- Analyze, think, sanity check, game plan
- Do, build
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### What can I do to help make a decision?

**Gathering more data**

<table>
<thead>
<tr>
<th>Decision</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to define a project</td>
<td>Do some back-of-envelope calculations</td>
</tr>
<tr>
<td>Will an idea work?</td>
<td>Do a quick simulation</td>
</tr>
<tr>
<td>How to write a paper</td>
<td>Run your outline by someone</td>
</tr>
</tbody>
</table>

**Always look for concrete next steps**
Combatting decision paralysis

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How can I briefly explore a decision?
- Move yourself to the “do, build” phase
- Determine actions to escape the paralysis rut
How can I briefly explore a decision?

Just do something

Set up scaffolding to undo decisions

• Record hardcoded constants / create parameters
• Create a new git branch
• Write a paper draft
Combatting decision paralysis

- Identify decision paralysis
- Seek external stimulus
- Make a low-risk decision
If you ever find yourself stuck...

JUST DO ... something

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