7 AI challenges for Product Managers

Wren Ludlow
Principal Product Manager

WHAT WE'LL COVER

- A Little About Me
- The 7 AI challenges for PMs
- Q&A

ABOUT ME

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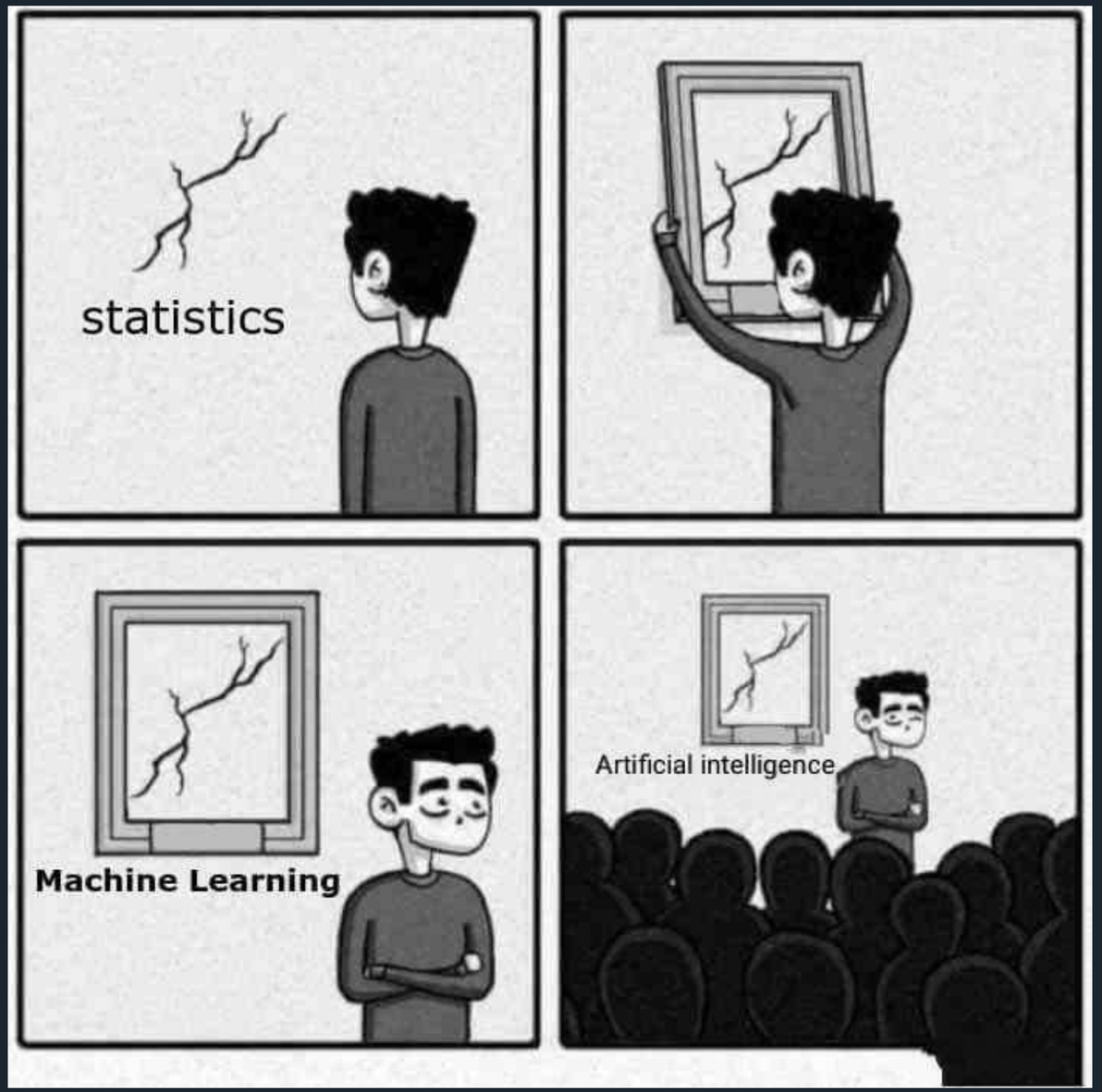
MY BACKGROUND

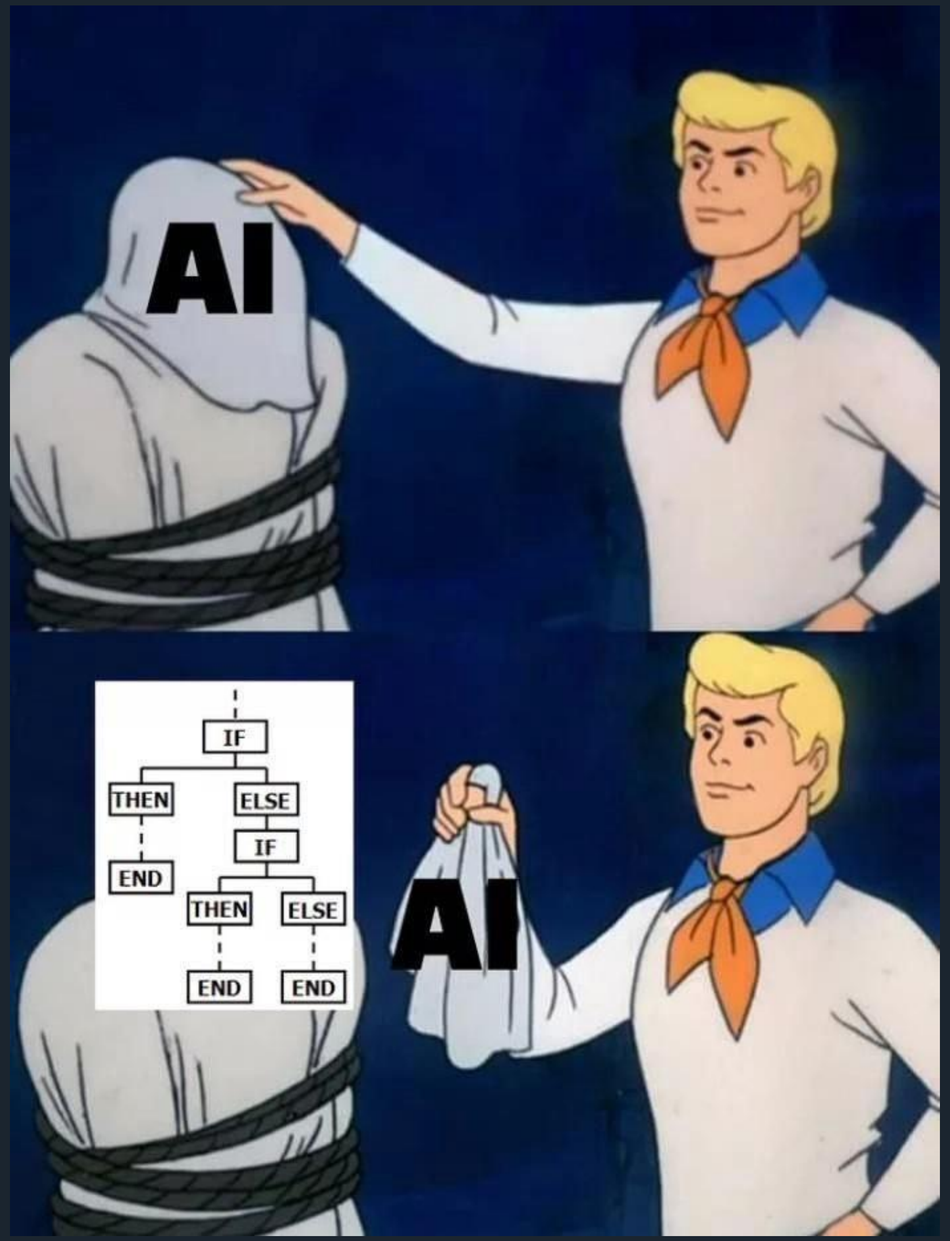
Marketing Intern

Marketing Program Manager

Senior Product Manager

Principal Product Manager


statistics
Machine Learning
Artificial intelligence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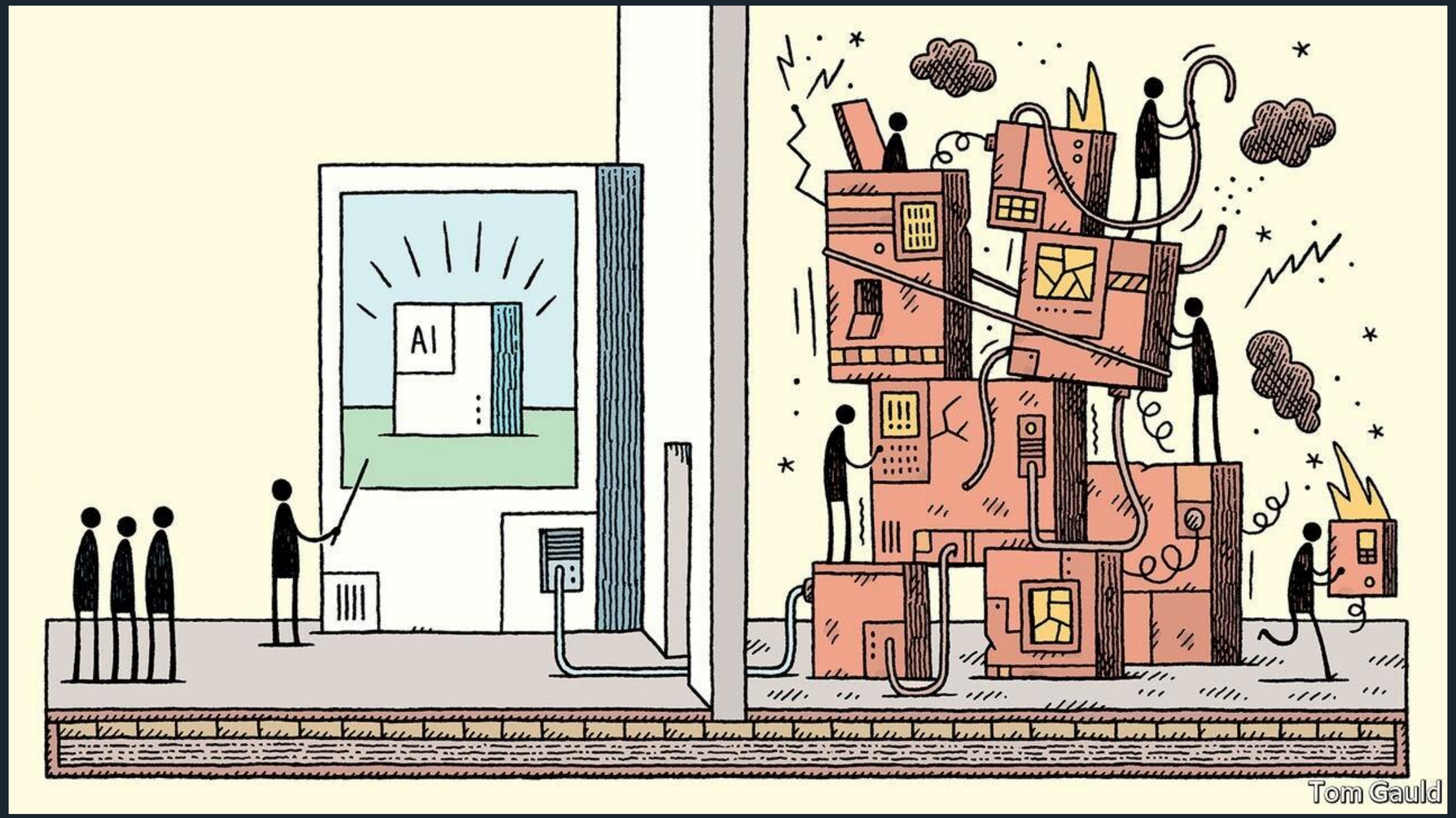

AI
Tom Gauld

So…what is AI?

Wren’s definition:

For product managers AI is any feature that helps the end user in intelligent, automated, or more streamlined ways. AI uses data to answer questions, uncover relationships, make recommendations, or make predictions. It’s not a magical thing, and it’s not a silver bullet that solves all problems. AI is best used for increasing speed, scale, and quality beyond what a human can easily do.

7 AI CHALLENGES

01 Finding the right problem

Finding a problem worth solving that has sufficient end user value. No AI for the sake of AI.

02 Getting the right data

Think about what data you need upfront. This can save time and headaches down the road.

03 Setting reasonable expectations. Don’t hop on the hype train.

AI projects are overhyped and plagued by inflated expectations.

Define success criteria and ground the expected value.

04 Staying on time and on budget

AI is long and resource intensive.

Contain a project’s cost and get to value as quickly as possible.

05 Cross team alignment

A lot of teams are involved in AI.

Things can get lost in the shuffle between competing priorities.

06 Staying focused

Keep a tight pulse on things. Things can get derailed at every step of the AI development journey.

07 Delivering the right end experience

Even with the best data model a project can still flop. The end user experience needs to be equally good and follow good principles of AI.

DELIVERING AI IS CHALLENGING

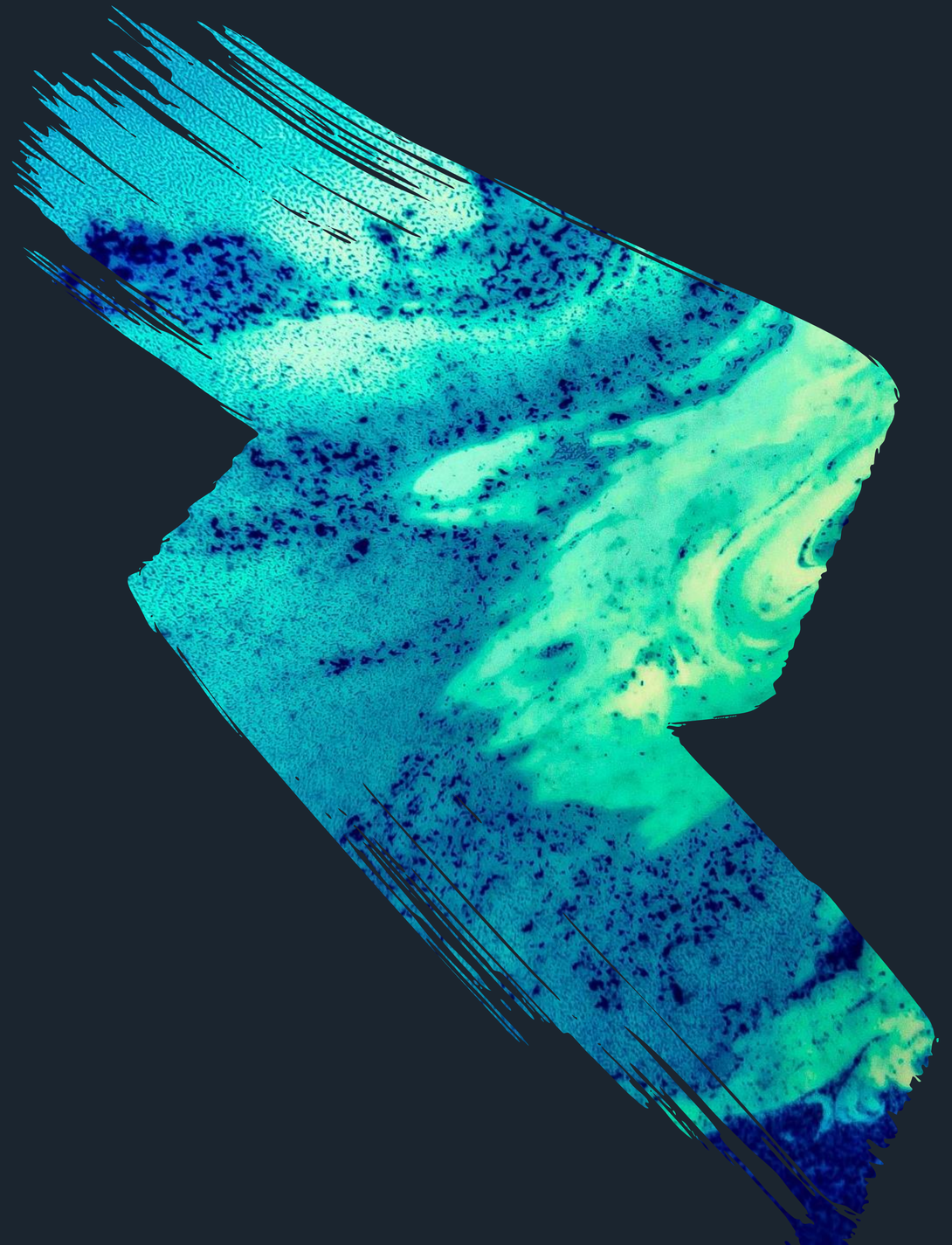
- 85% of AI projects will not deliver for CIOs (Gartner)
- For 1 in 4 companies half of AI projects will fail (IDC)
- AI projects are an average of 20% over budget
- A majority of AI projects never make it into production

AI DEVELOPMENT PROCESS

FIND THE RIGHT PROBLEM

Finding a problem worth solving with sufficient end value.

Don’t do AI for AI’s sake.



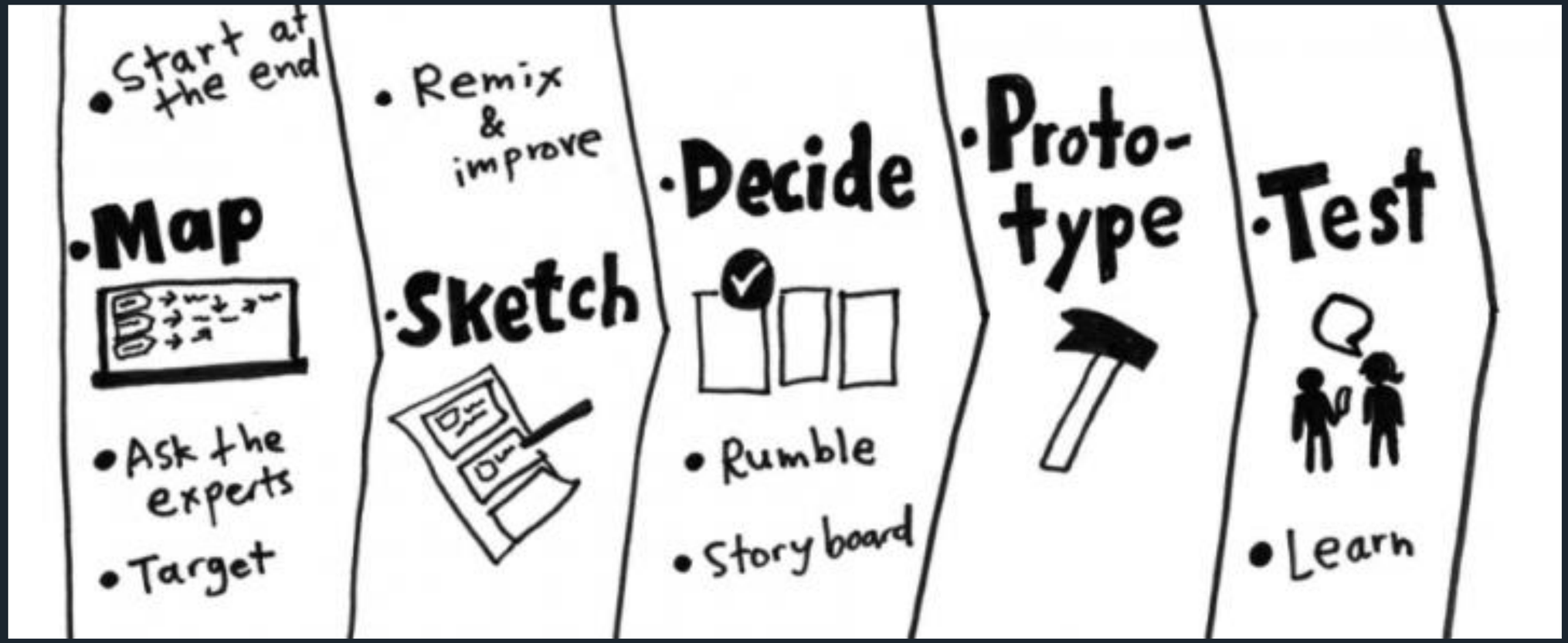

WOULDN'T IT BE COOL IF WE COULD...
THAT'S NOT HOW WE SOLVE REAL PROBLEMS
imgflip.com

FINDING THE RIGHT PROBLEMS TO SOLVE

1) Write out a clear problem statement
2) Focus on features or workflows that are slow, don’t scale, or are difficult to maintain quality
3) Write a future-looking press release
4) Validate early and often before major investment is made

Tip: AI and data are tools, they aren’t features themselves. Don’t use AI if it doesn’t make sense.

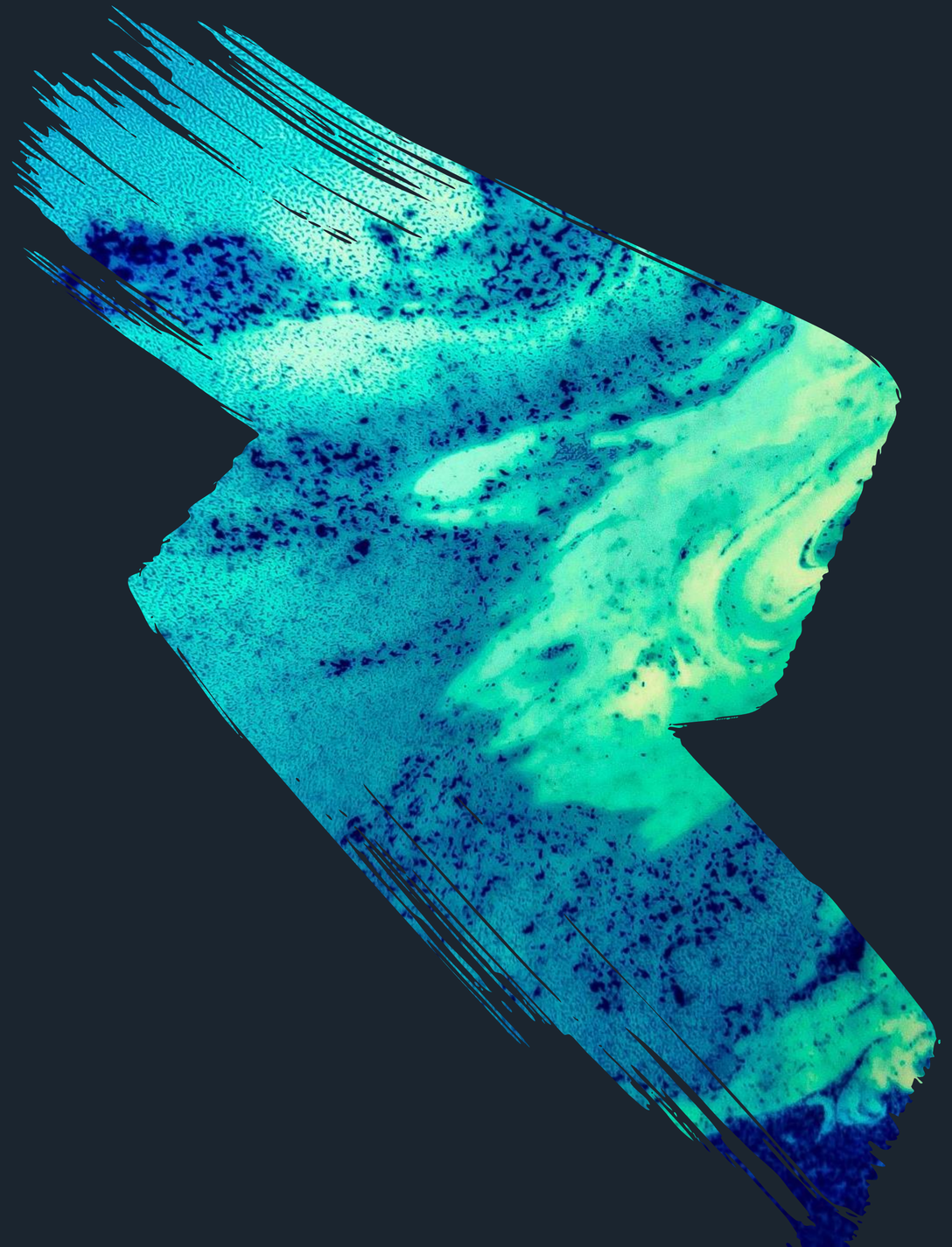
VALIDATE EARLY AND OFTEN



thesprintbook.com

GETTING THE DATA

Think about what data you need ahead of time and if it’s available.




SHOW ME
THE DATA!!!
imgflip.com

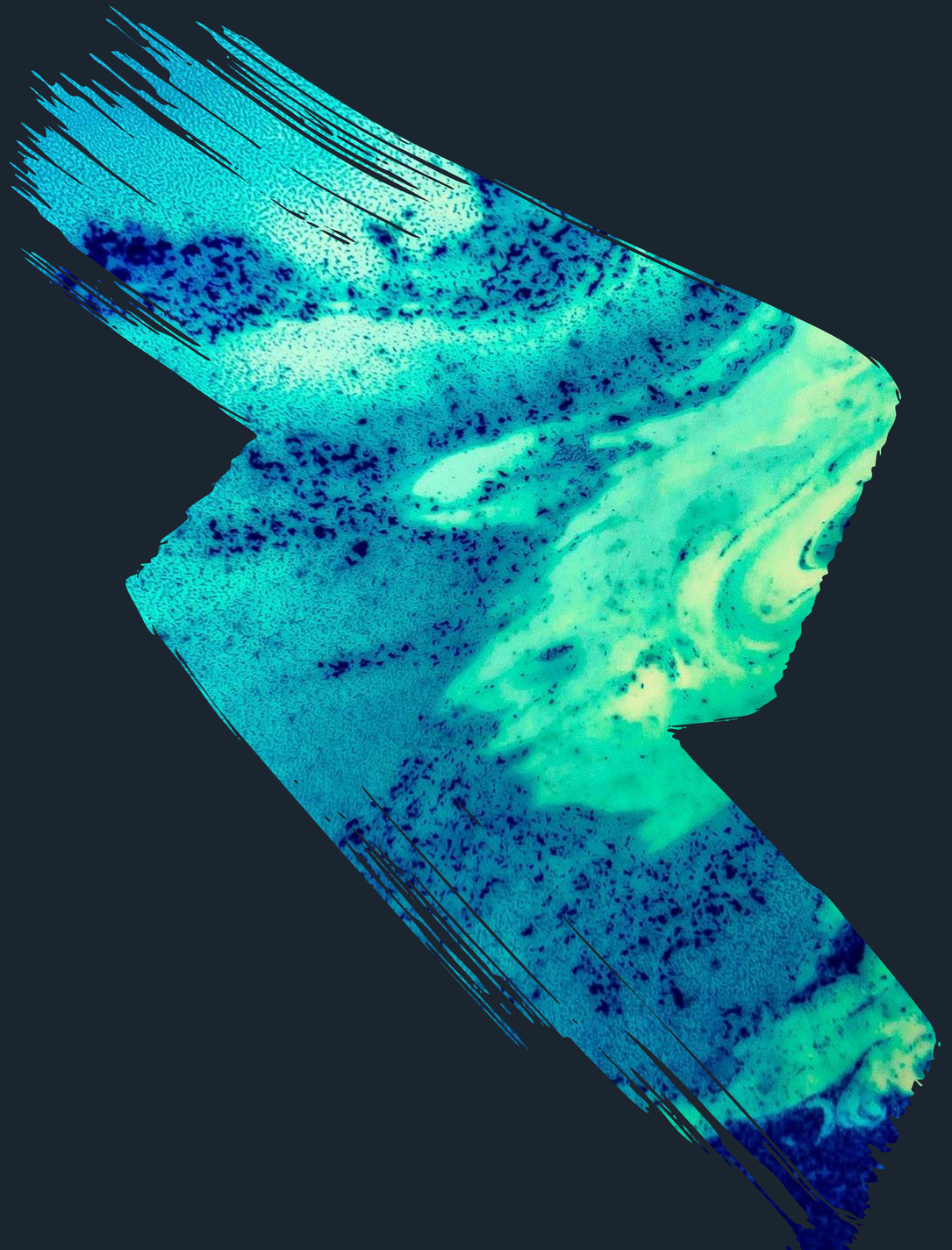
FINDING THE RIGHT DATA

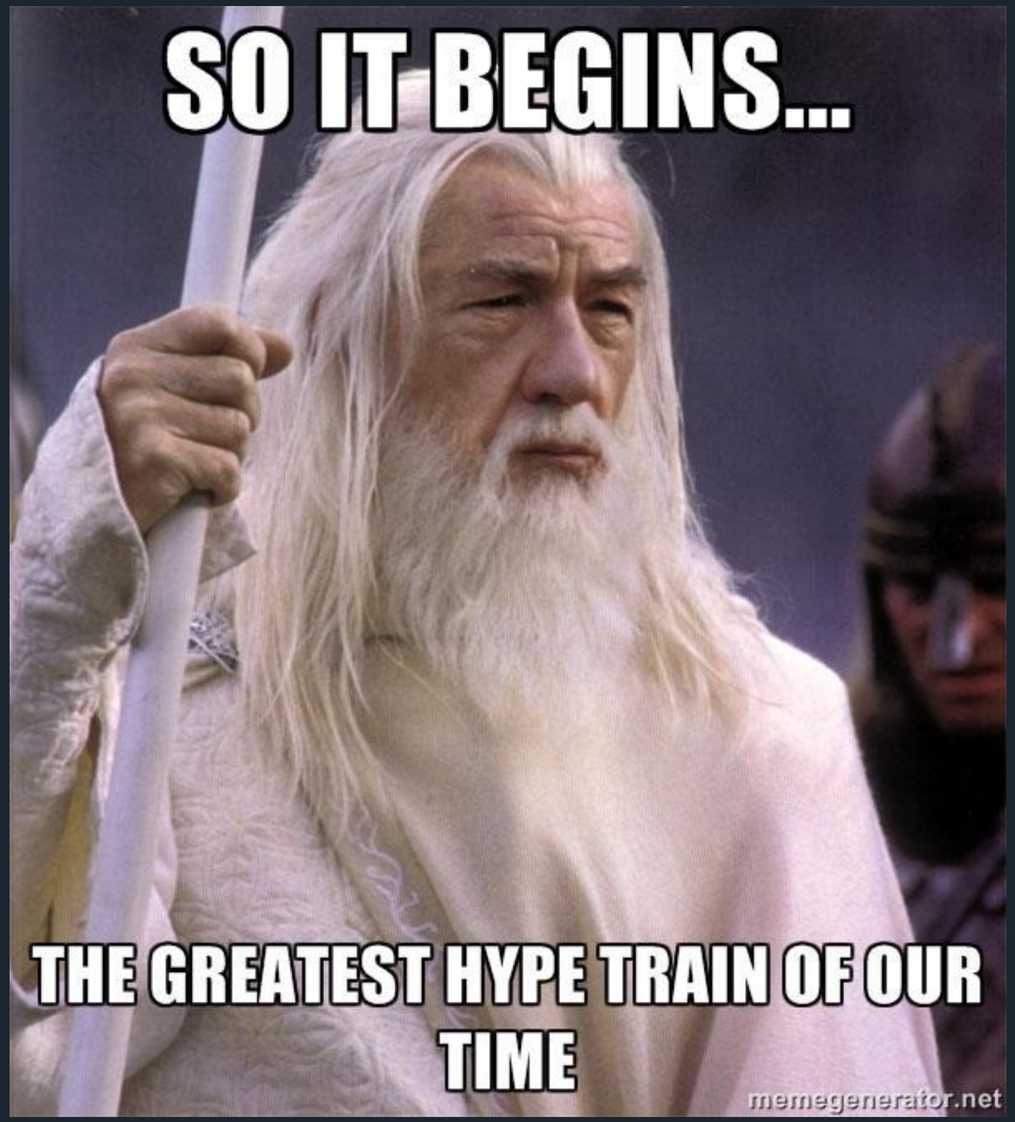
1) Think about known or easily identifiable metrics and data sets that your product has access to
2) Are there known legal or other sensitivities with the data? Regulatory concerns or company policy? Permissions?
3) Is there enough data volume and diversity to be representative and usable for model building?
4) Consider obvious quality limitations or needs for labeling and organization that would limit data's usefulness
5) Consider open source or other public data sets

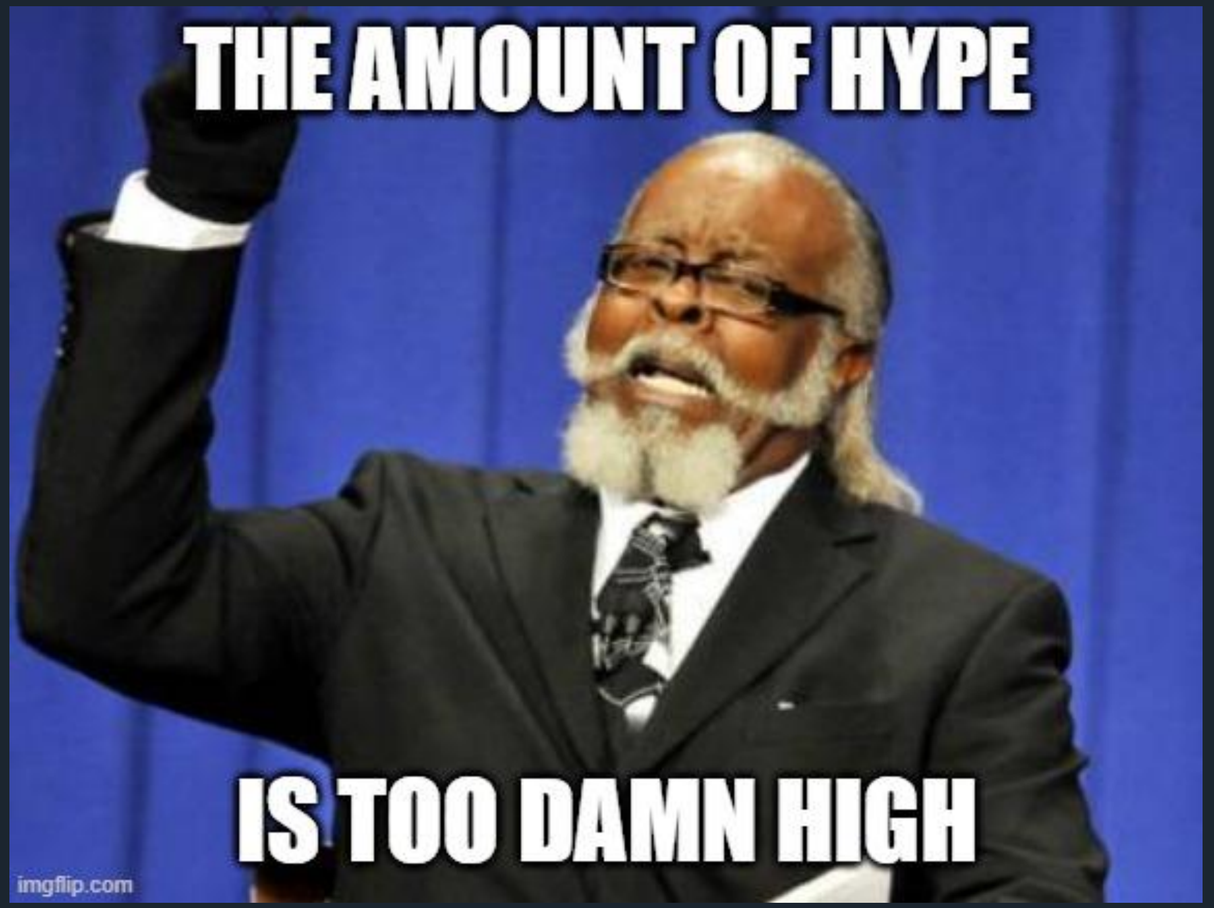
Tip: Don't just leave this to data science—think about data early in the process

SET EXPECTATIONS

Define success and stay grounded.




SO IT BEGINS...
THE GREATEST HYPE TRAIN OF OUR TIME
memegenerator.net


THE AMOUNT OF HYPE
IS TOO DAMN HIGH
imgflip.com

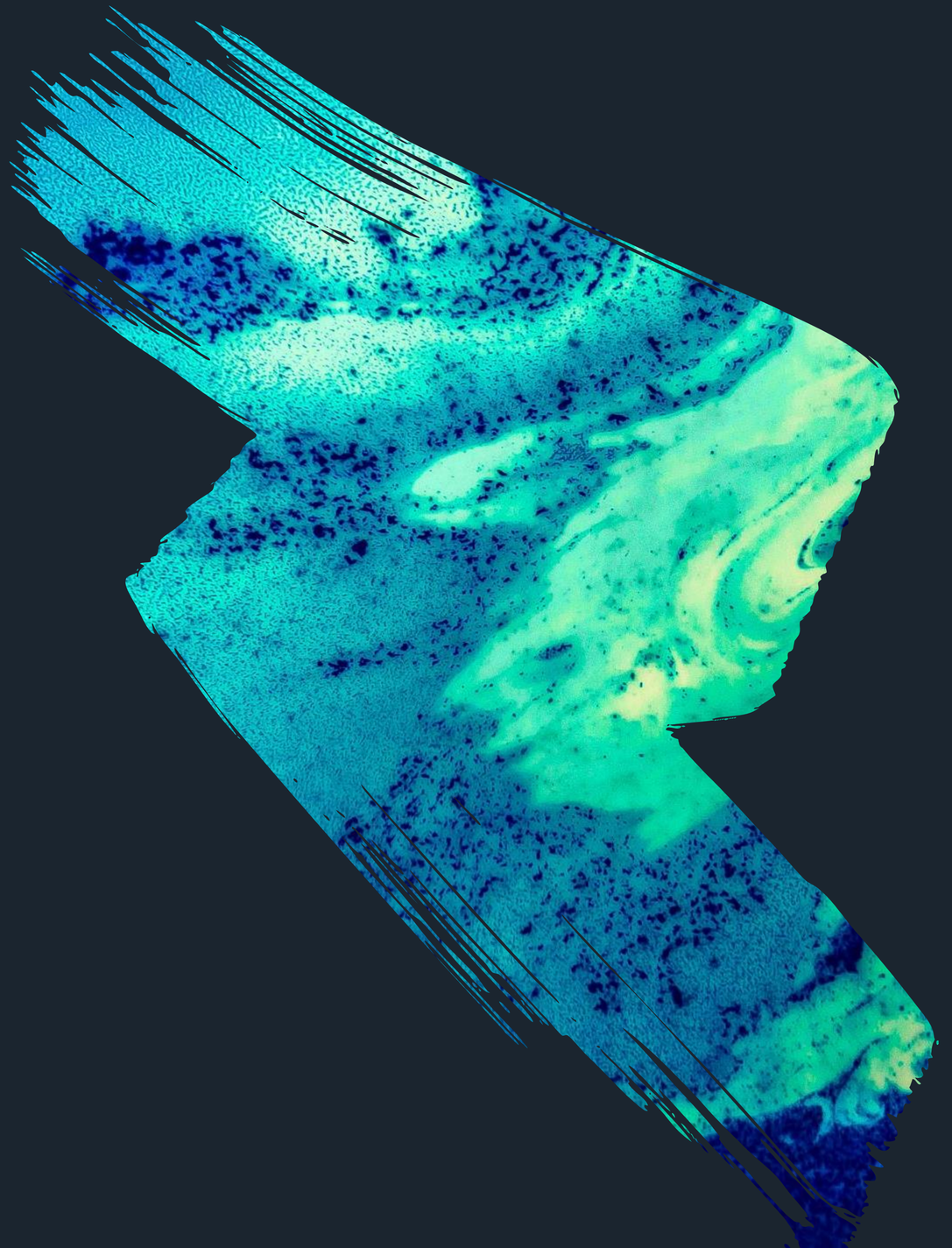
SET REASONABLE EXPECTATIONS

1) Not all AI is created equal or equally intelligent. Understand and document anticipated differences for your given project
2) Set expectations in what the particular AI solution can and can’t do
3) Communicate success and performance criteria ahead of time
4) Set project timing expectations on discovery and delivery
5) Don’t let the hype train derail you!

Tip: Balance the need to ship value while giving yourself a buffer.

STAY ON BUDGET

Contain costs and ship value as quickly as possible.




WE'RE GONNA NEED A
BIGGER BUDGET
memegenerator.net

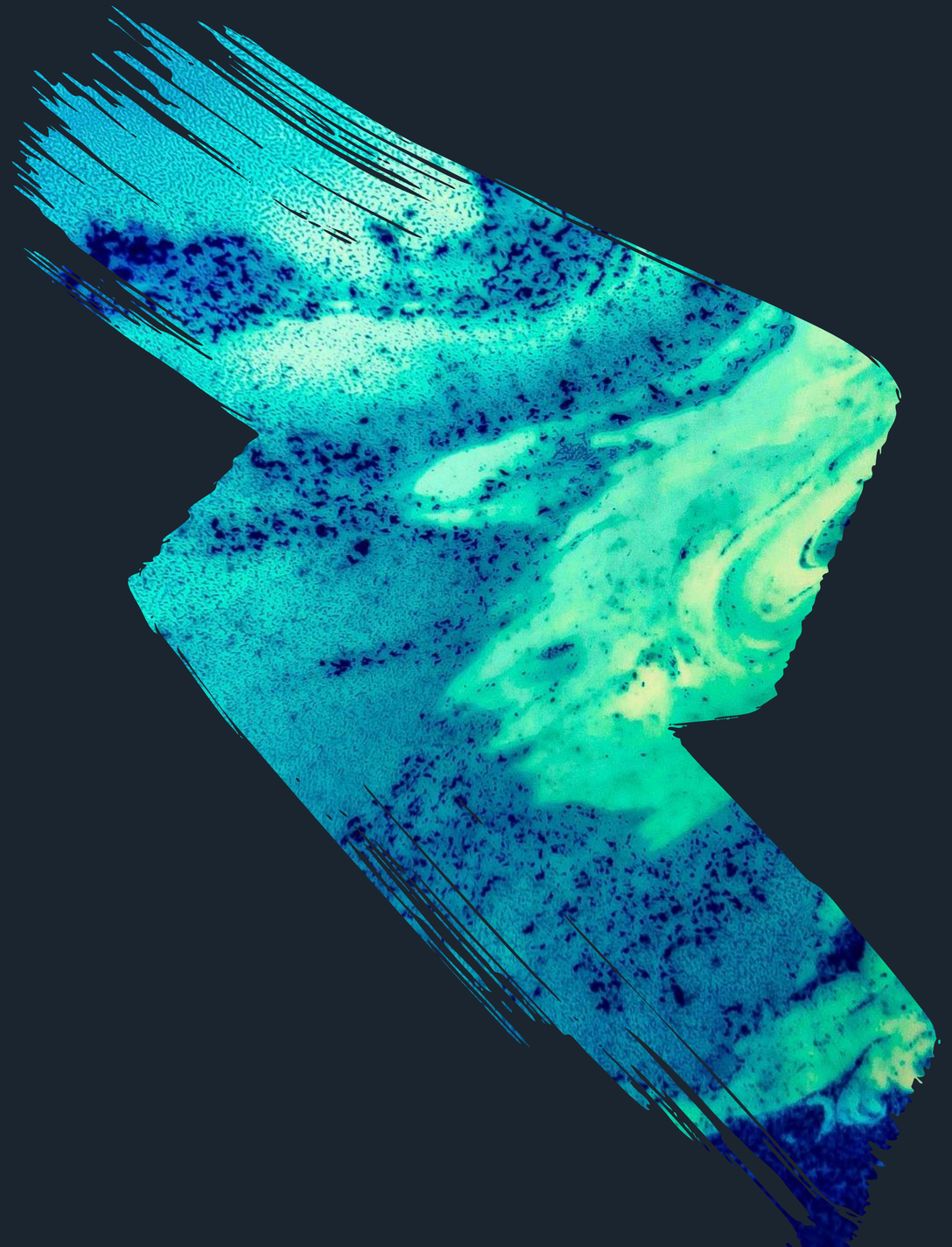
STAY ON TIME AND ON BUDGET

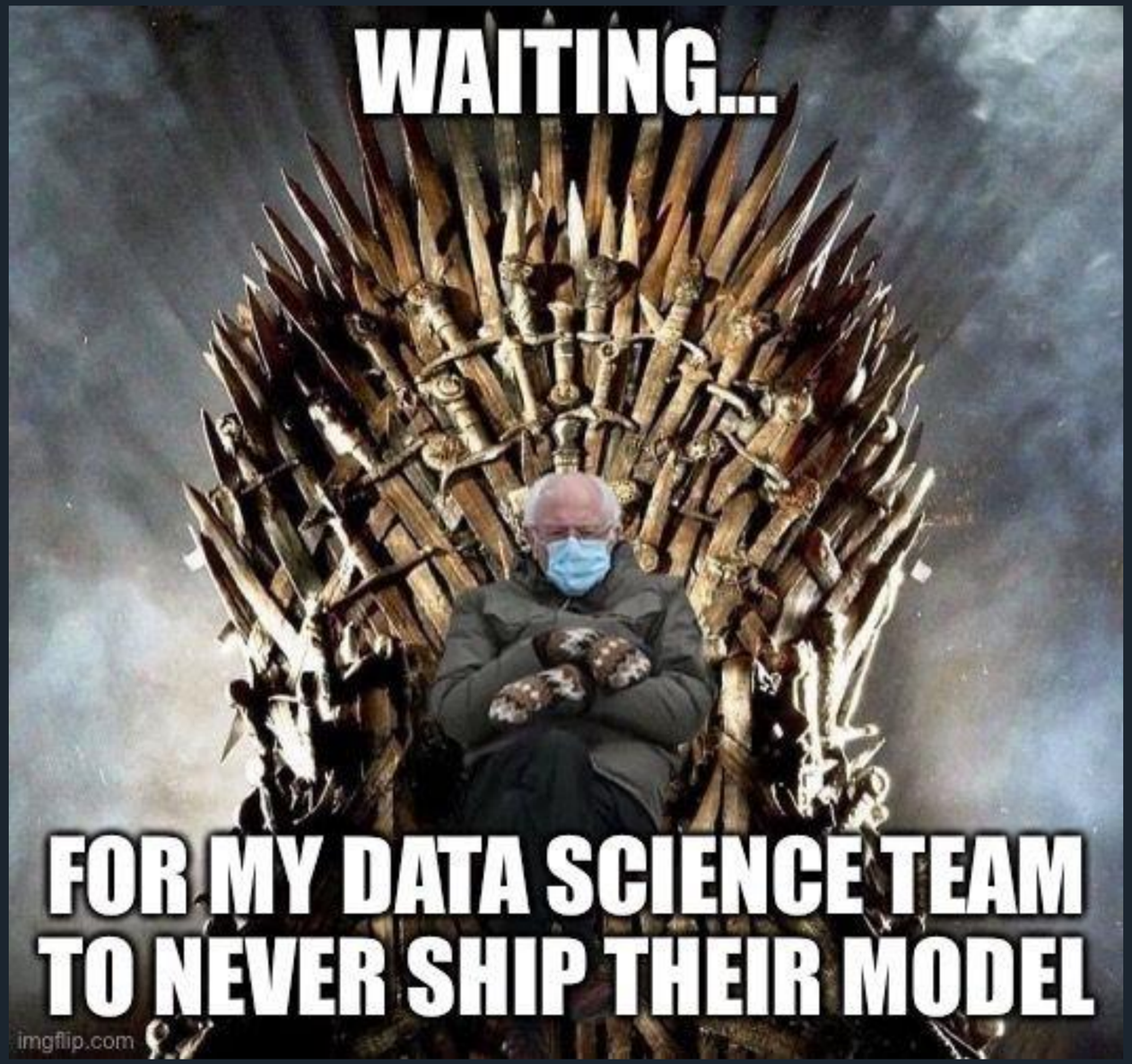
1) Time-box data exploration and data science research and make a go/no-go decision by a specific date
2) Have success criteria ahead of time for each AI development stage
3) Map out the moving pieces and flag down if things are slipping
4) Track and be sensitive to time spent by your engineering resources
5) When things slip, communicate early and communicate often

Tip: Don’t be afraid to stop or pivot a project just because of sunk costs.

CROSS TEAM ALIGNMENT

Bring all the right teams together and work across competing priorities.




WAITING...
FOR MY DATA SCIENCE TEAM
TO NEVER SHIP THEIR MODEL
imgflip.com

Product Management

Data science

Architecture

Product Marketing

Dev

Dev ops

UX

STAYING ALIGNED ACROSS TEAMS

1) Understand the competing priorities and time commitments across teams, particularly engineering and data science

2) Have agreed operating procedures and have regular coordination meetings as needed

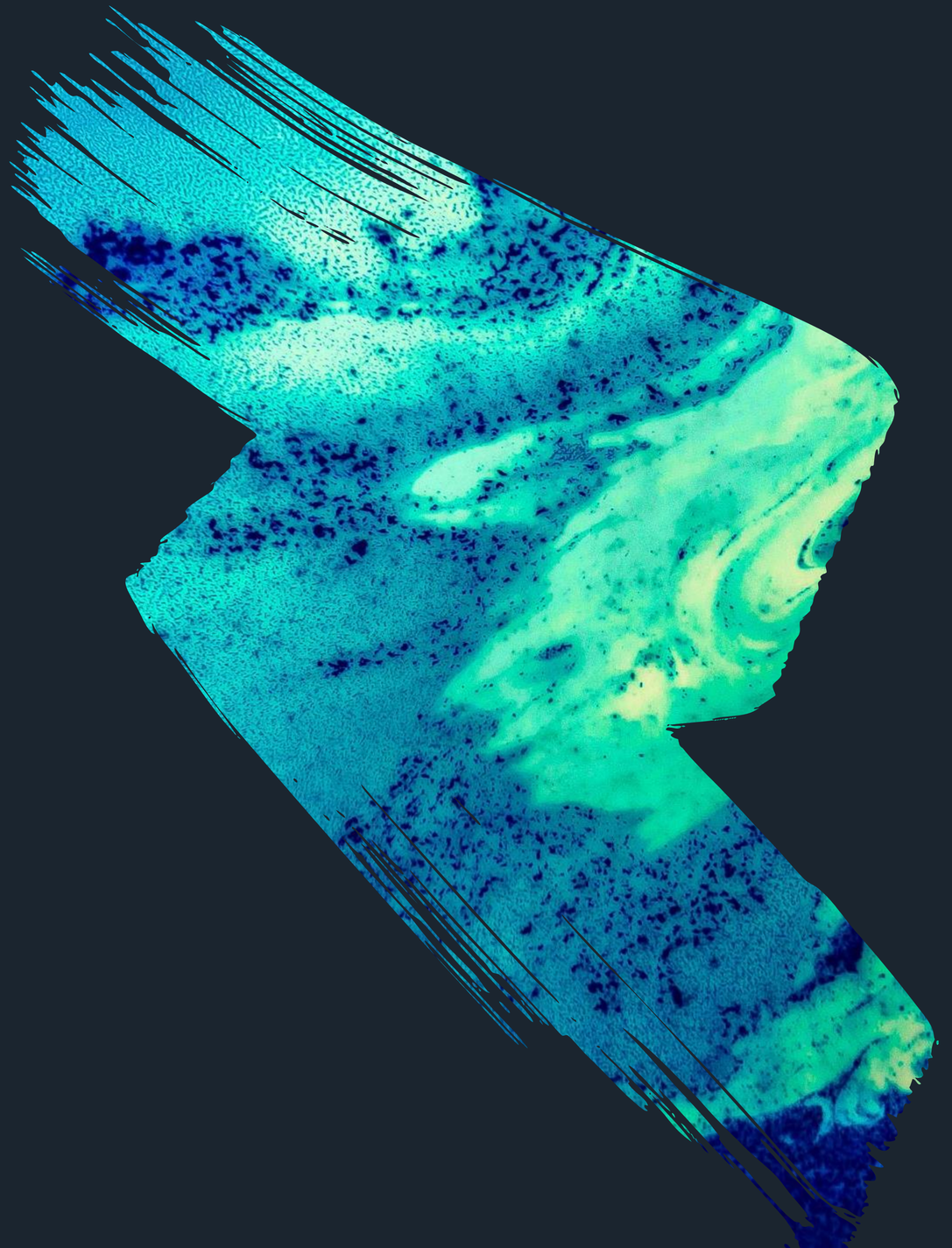
3) Document everything: progress from data science research, engineering validation, requirements gathered and customer feedback

4) Really understand and focus on potential dependencies and how to minimize them, particularly in project handoffs

Tip: As a PM you have the end-to-end view of the project and can facilitate appropriate discussions.

STAY FOCUSED

Keep a tight pulse on things and don’t get derailed.




THIS IS FINE

STAYING FOCUSED

1) AI tends to be more subjective and fluid. Stick to your objectives and success criteria

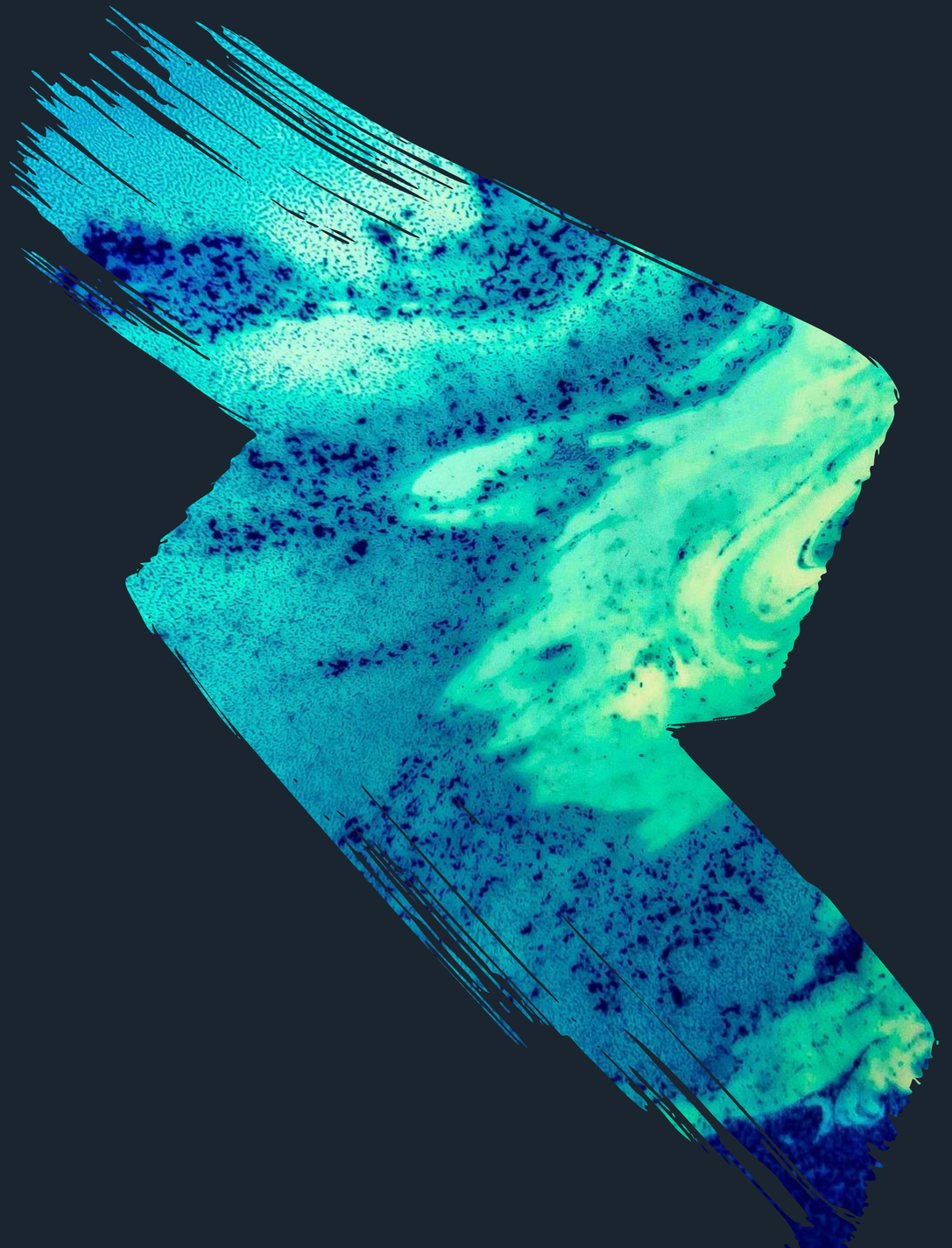
2) Manage scope creep, especially in the research and exploration phases of AI projects

3) Things will go wrong, so be prepared to adjust scope down or pivot implementation details without compromising the feature

Tip: AI projects can easily be derailed. This is where your pre-planning really helps.

DELIVER A GOOD EXPERIENCE

The end experience matters just as much as the model.




EXPECTATION
VIA 9GAG.COM
NAILED IT

DELIVER THAT END-TO-END EXPERIENCE

1) Really focus on how the AI feature is implemented in the UI. There is a lot that can go wrong here
2) Draw on customer feedback and early prototyping to work out the best way to present the AI's insights or data
3) Focus on the principles of good AI: trust, transparency, and control

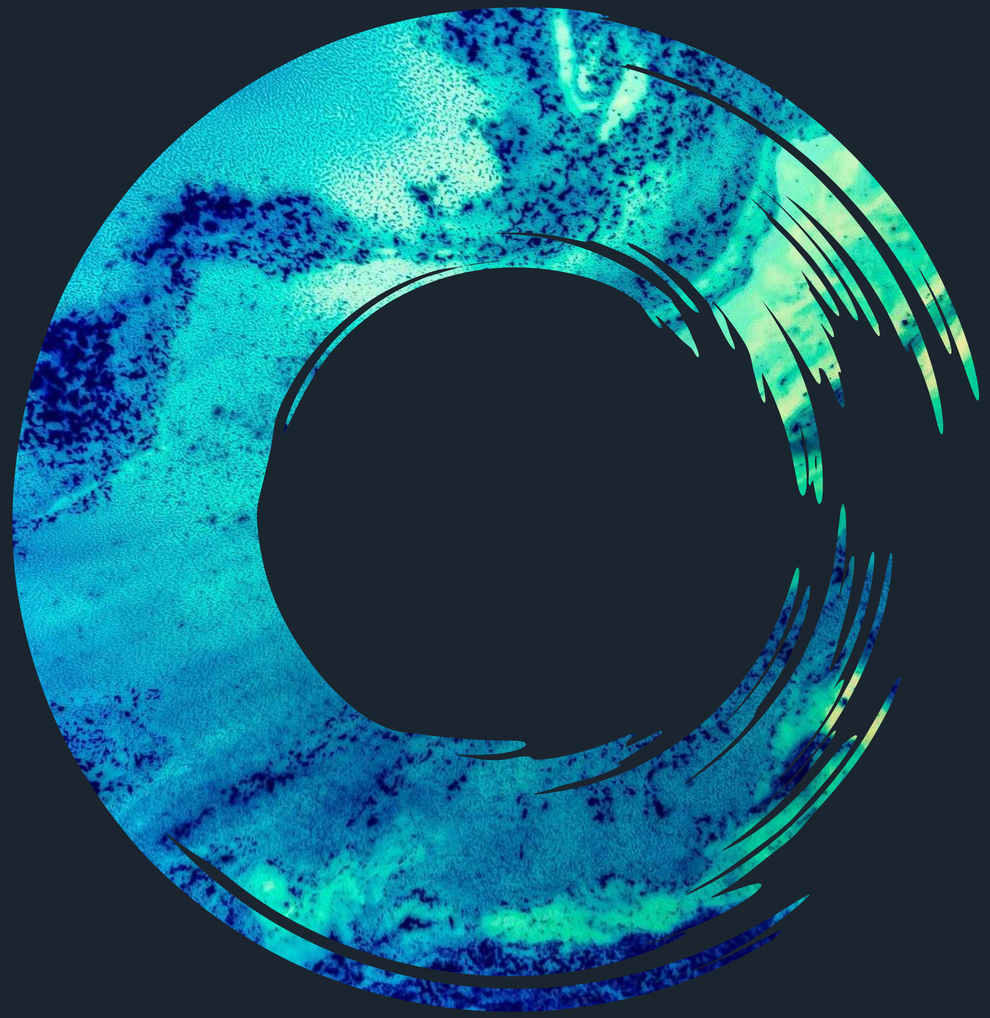
Tip: There are many ways to implement a single AI feature. Be open to finding what fits best.

PRINCIPLES OF GOOD AI FEATURES

Trust: the AI output should be accurate and useful. As a user I should have confidence in it.

Transparency: I want to know what's going on without being overwhelmed. There needs to be an appropriate level of abstraction.

Control: I should feel like I'm in control of my experience.

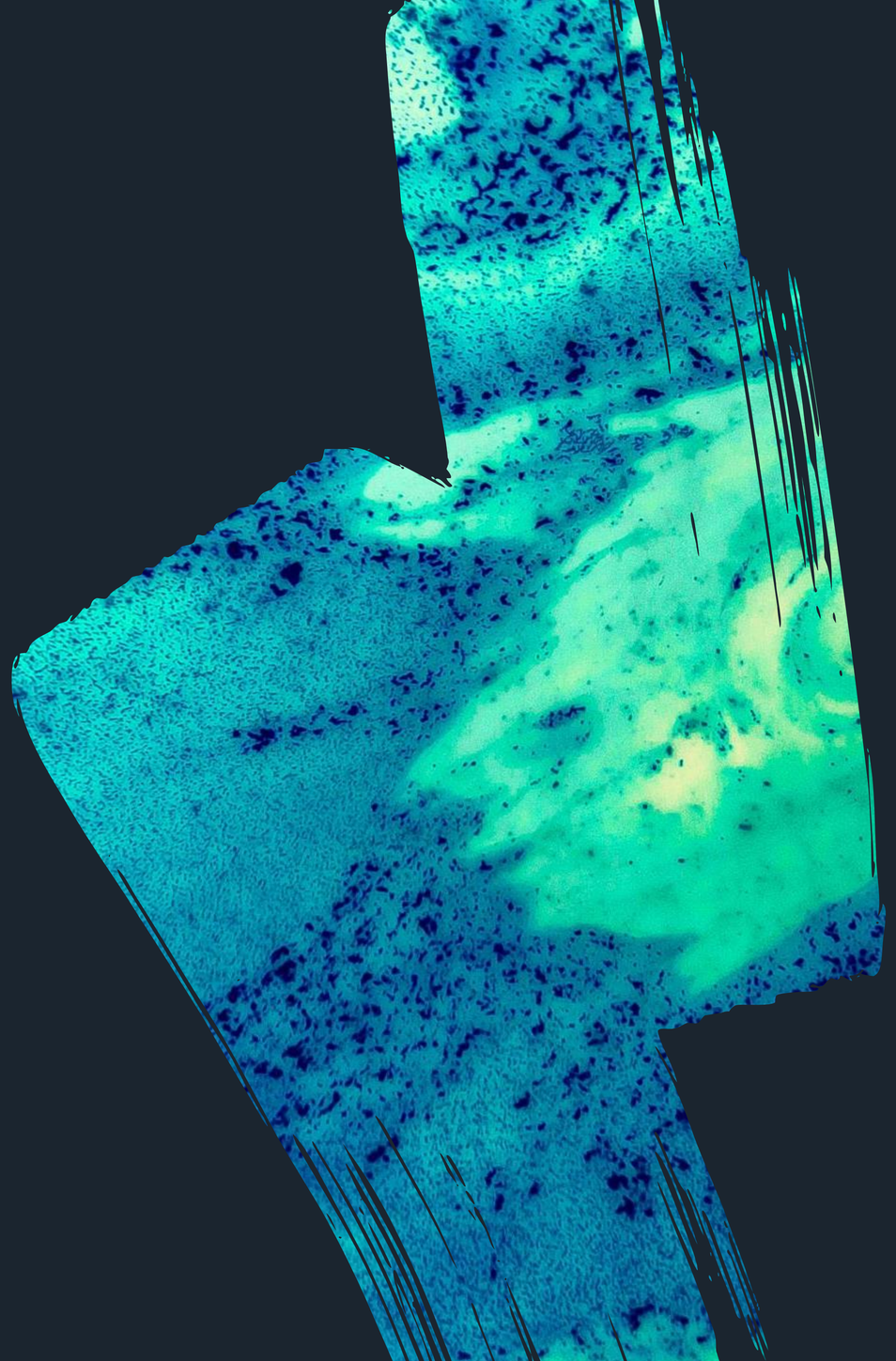


IN SUMMARY

1) Find the right problem
2) Get the right data
3) Set reasonable expectations
4) Stay on time and on budget
5) Cross-team alignment
6) Stay focused
7) Deliver the right end experience

WREN'S GENERAL AI TIPS

1) Look for a problem worth solving
2) Resort to simplicity
3) Always have a human focus
4) Establish trust from the beginning of the experience
5) Models should be explainable, fair, and accurate
6) Good abstraction removes end complexity
7) If it's too good to be true, it means there's a bug
8) The right approach depends on what is important to you
9) Be patient for training and experimentation. Don't cut corners



LET’S CONNECT

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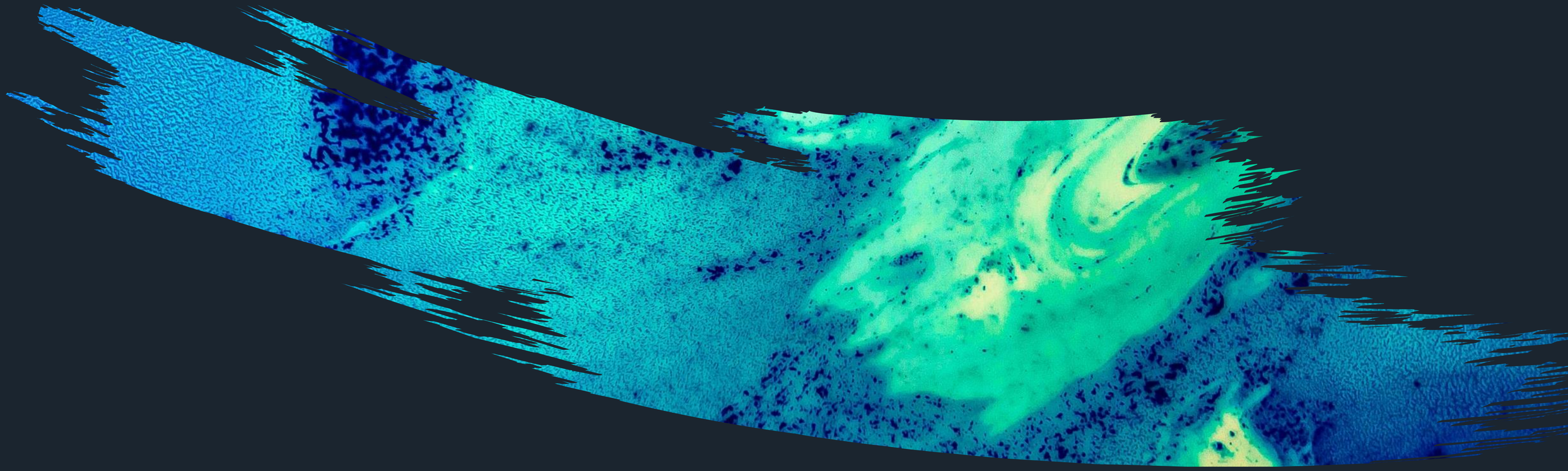

QUESTIONS?

Thank You!