Welcome to Unifying Data Science *(Continued)*

Nick Eubank

Part Two: Unifying Data Science

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$\Rightarrow$ Development of new tools occurred *within* each silo.

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  - CS likes to classify things and make predictions, don't care how model works
  - Social scientists like to make causal statements, don't care about predictive power

Blind Men and the Elephant

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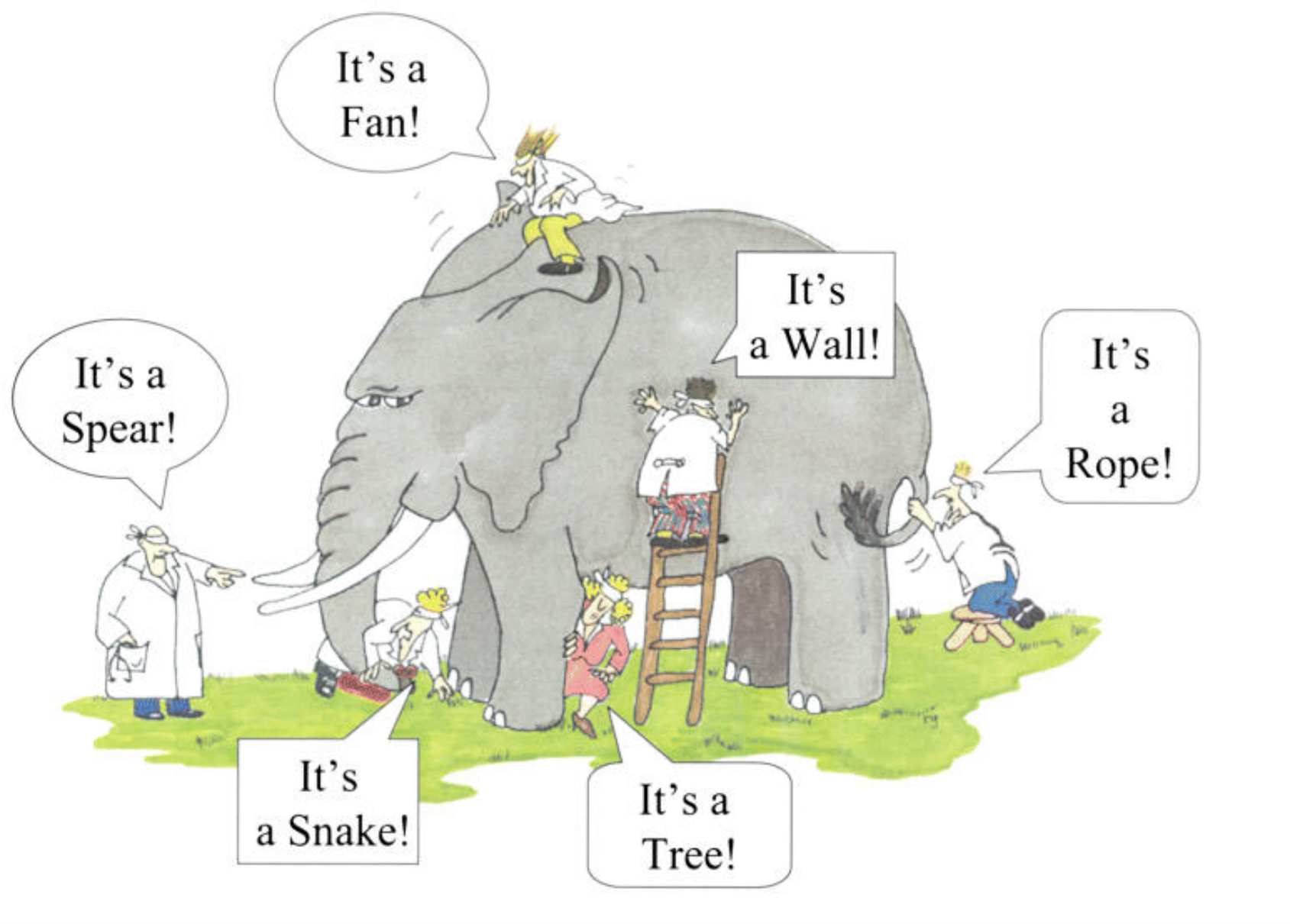

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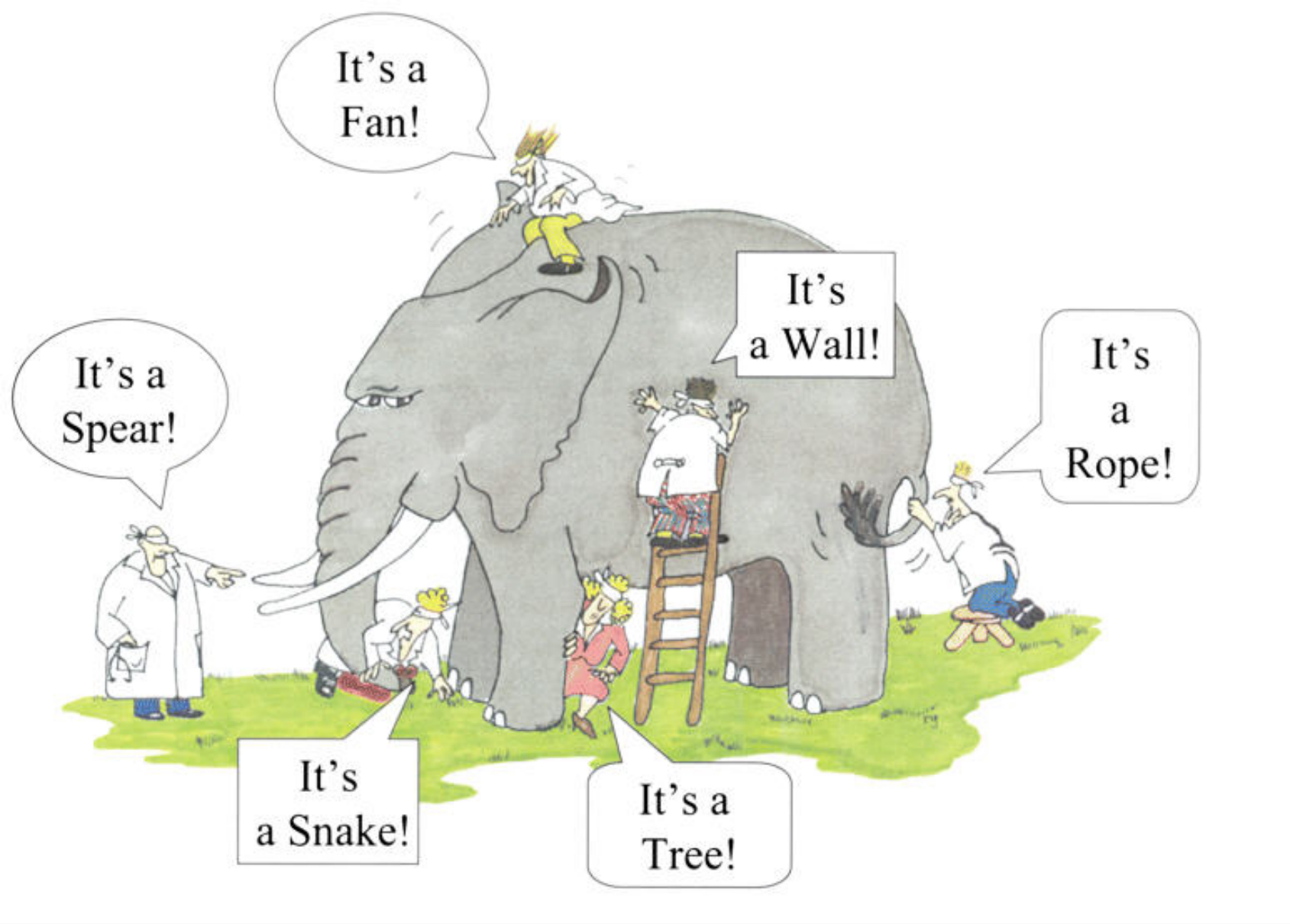

⇒ This is where data science is *now*.

What do I think Data Science should be?

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An effort to unify the development of quantitative methods

$\rightarrow$ Recognize the elephant

This Class

Discipline of learning how best to answer questions using quantitative data.

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- Unsupervised machine learning
- Supervised machine learning
- Range of causal inference techniques
- Other approaches to descriptive analysis

This Class

The tool you use should be dictated by the question you seek to answer

Part Three: Your Data Science Project

Data Science Project

Over semester, you will also develop a data science project from start-to-finish

- Teams of 3-4,
- On topic of your own choosing.
- Only rule: it has to be causal.

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$\rightarrow$ MIDS first-years: Capstone with training wheels

Data Science Project

Introducing in stages:

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- Stakeholder management

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- Causal inference is a discipline that people spend their careers studying, so they are terrific resources, but also be aware you may hit questions they redirect to me.

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- Books:
  - *Mastering 'Metrics*
  - *Mostly Harmless Econometrics*

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Talk to me!

Phew. That's it!
Questions?