

You know what I'm talking  
about, right?

Epistemology and why it's relevant to history of  
computing

# Philosophy!

- “The study of foundations”
- Kinda stuck in the mud and overly concerned with ~ arguments ~
- If you're boring it's “what Kant said about morality, except let's ignore all those things he said about people of colour and jews and ...”
- If you're not boring it's got some way more interesting things about power and history
- I swear I do actually apply this to historical research in my genealogy of maths research.

# Epistemology!

- Study of Knowledge
- How do we think about knowledge
- How do we think about how we think about knowledge
- Is thinking about thinking about how we think about knowledge actually useful  
what if instead we talk about who gets to produce knowledge and how the  
larger knowledge bases in society are shaped by power and...

# Why is this relevant?

- Epistemology is the study of knowledge
- A history of an idea, field, place, or event is a knowledge base.
- Social Epistemology & (philosophical) Genealogy have tools we can use to analyse where ideas come from
- If we get through this stuff then we can critique it later!

# But really, why are we talking about this?

Week 7: Basic Epistemology.

Week 8: Epistemic injustice. Knowledge and language.

Week 9: History of Formal Languages (i.e. programming languages)

Epistemology is relevant to understanding the last bit.

# Epistemology Basics!

- What's the relationship between a knower and knowledge?
- What kinds of knowledge can we have?
- ... But what is knowledge?

# Brief Aside: European philosophers arguing about what's important

## Analytic philosophy

- British school from the 1900's onwards
- "What if we applied logic and mathematics to philosophy"
- Really likes "pure objectivity" though doesn't tend to examine that
- Also really likes arguments structured like maths proofs
- ~ Logical Positivism ~ i.e. "defeating philosophical problems with facts and logic"
- "Surprisingly" a lot of analytic philosophers were mathematicians, and this kind of philosophy got popular around the beginning of the 1900's when formal mathematics was getting put together.

# This aside got a bit less brief

## Continental philosophy

- “Philosophy from Europe in the 1900’s that wasn’t analytic philosophy”
- “Postmodernism”
- The bits that get called continental philosophy consider context, power, history, culture in its analysis
- Philosophers such as Foucault, Derrida
- Some nerds point to continental philosophy as “why fake news exists” but damn fake news sure existed in 1930’s Germany while Foucault was still a toddler
- These lines between the two are 1. Eurocentric 2. Fake 3. Academic philosophy likes to make it real anyway



# The Analytic Take on Knowledge

- We can totally describe what knowledge is!
- It's JTB: Justified True Belief
- Analytic philosophy breaks this down into some exceedingly boring faux-logical propositions
- "P (the thing that we're considering to be knowledge) is true"
- "S (the subject we're considering to *have* knowledge) believes P"
- "P has reason to believe S is true"

# ...The Analytic take on Knowledge?

- What makes it justified
- What makes it true
- What makes it belief
- ...What influences what we consider to be justified, true, and belief?
- ...What about this weird instance of fake barn county...

# The Gettier Problems

- Stopped clocks
- Fake Barn county
- Anything where there's justification, belief, but the thing being considered as knowledge isn't true, or the justification is wrong, but their belief was right.

# Problems with Gettier

- Gettier wasn't the first person to point out these issues
- JTB wasn't really popular until Gettier
- JTB did however get popularised in analytic philosophy circles after he talked about its problems
- "We can fix JTB by adding another clause"

# What If We Just Say “Knowledge” Is Fundamental

- Infinite regress = kid asking “why” constantly
- Axioms / tautologies help us stop somewhere and build up from there
- ***But...***
- Foundations are *chosen*
- We can question why they’re chosen
- We can discuss what alternatives there are to chosen fundamentals

# Next week

- Actually interesting things
- Epistemic Injustice. The intersection of actually interesting morality stuff and epistemology.
- Starting to talk about stuff that's not just fluffy ivory tower philosophy
- How is this actually relevant to history of computing