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Societal Impacts
'Open Data'
'Big Data'
Sustainable



This stuff...
Ambiguity.
Measurement.
Granularity.
Main effects.

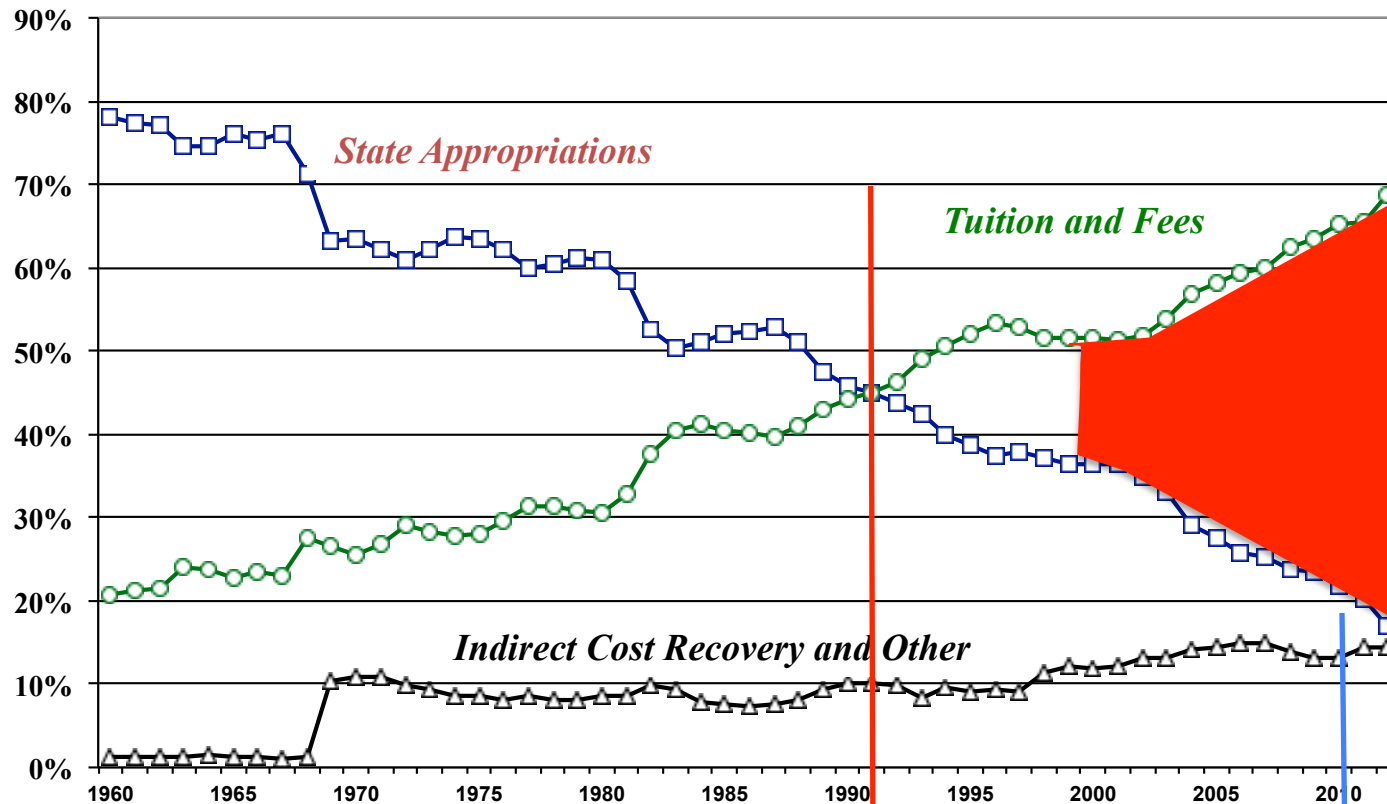
“Assessing the
and Value of
and
in Developing
Society”
by Wessels and Craglia

John Leslie King
University of Michigan
jlking@umich.edu

“If you can’t measure it,
you can’t manage it”.

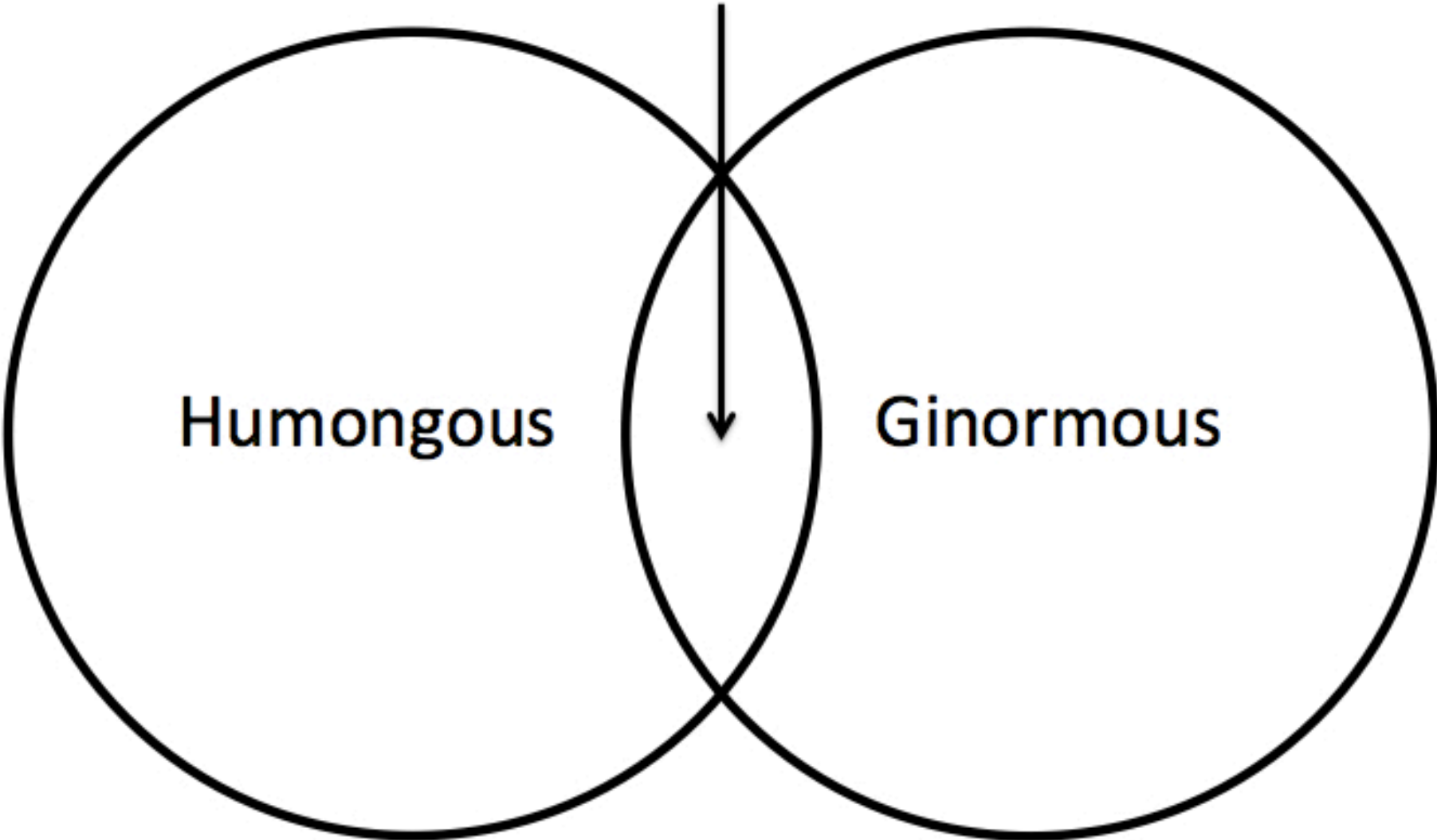
All measures look backwards.

U-M Changing Mix of General Fund Revenue



- 1960: State Funding 79%, Tuition 20%
- 1991: U-M Crossover (UC 2010)
- 2012: State Funding 17%, Tuition 69%

Big Data



Humongous

Ginormous

- Sentiment and skepticism
- Challenge two assumptions
 - Future = past; history = progress
 - Surprise; fast but slow
 - Elites know best and government leads
 - Some people disagree
- Start with definitions... “Open” has problems but consider Big Data

Four Reversals



Pictures

- Thomas Fuller: “Fool’s names and fool’s faces are often seen in public places.”
 - Facebook?
- Henry Ford: Production engineering and the “supply chain.”
 - Demand chain.
- James Carey: Communication dependent on transportation.
 - Transportation dependent on communication.
- Margaret Thatcher: Society doesn’t exist.
 - Really?

Elites know best; government leads

Future = past; history = progress

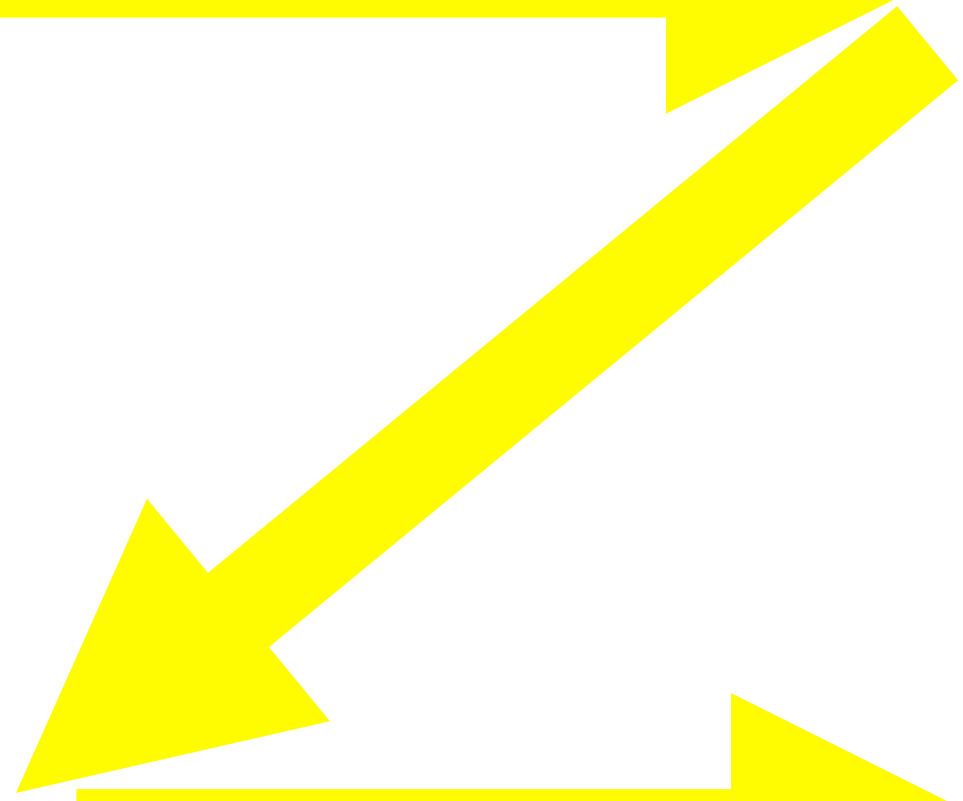
NEW YORKER
July 5, 1993

Internet Dog Cartoon

- 1993. “Internet” named 1995.
- 2014. Everyone knows you’re a dog.
- Reversals...

RFID Tags

Container Ship



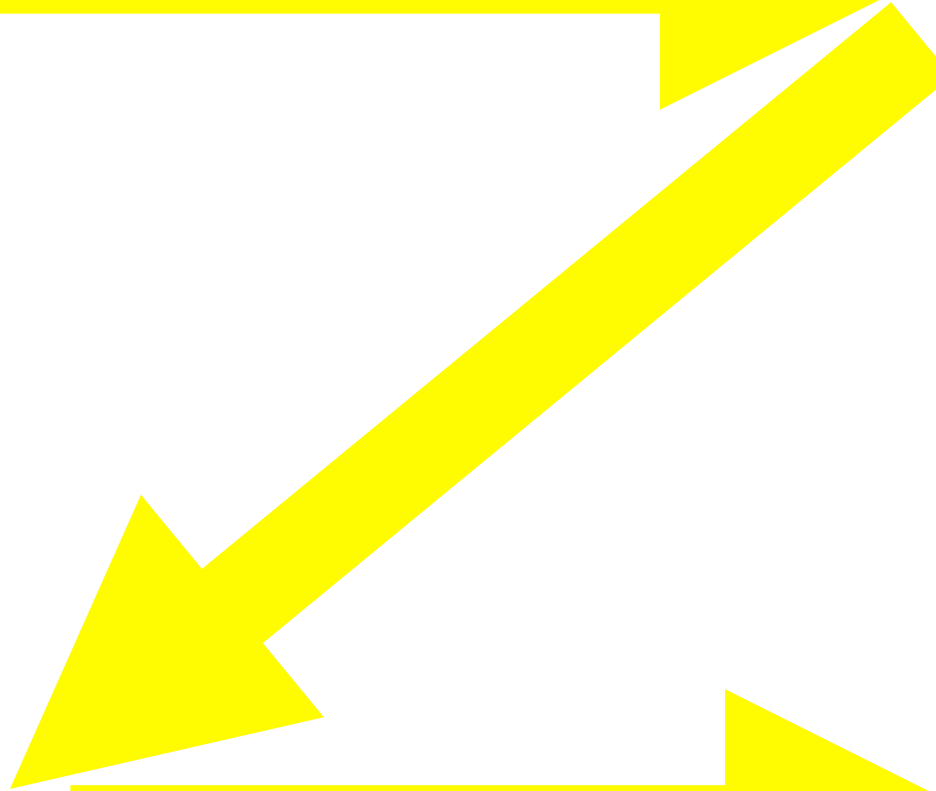
RFID on Shelves

9/11 Twin Towers



B-24 Production at Willow Run

Supply Chain



Hurricane Katrina from space

Walmart truck




Margaret
Thatcher
Picture

"I think we've been through a period where too many people have been given to understand that if they have a problem, it's the government's job to cope with it. 'I have a problem, I'll get a grant.' 'I'm homeless, the government must house me.' They're casting their problem on society.

And, you know, **there is no such thing as society.** There are individual men and women, and there are families. And no government can do anything except through people, and people must look to themselves first. It's our duty to look after ourselves and then, also to look after our neighbor. People have got the entitlements too much in mind, without the obligations. There's no such thing as entitlement, unless someone has first met an obligation."

Prime minister Margaret Thatcher,
talking to *Women's Own*
magazine, October 31 1987

- Privacy and confidentiality
 - Decent names and decent faces are *often* seen in public places
- Demand chains replace supply chains
 - Pull over push
- Information, communication, transportation
 - Stocks → flow
- Society doesn't exist
 - Those who see “public good” as oxymoron aren't buying it.



Software
“Waterfall”
model

1985

“If you can’t measure it,
you can’t manage it.”

Not true.

Never been true.

Never will be true.

People don’t have to open their minds.

They just have to open their eyes.