

*Wicked Problems of
Myths,
Mis(Dis)information, and
Machine Learning (AI)*

Kent Thornton &

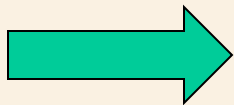
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Presentation

- **Describe Wicked Problems and Attributes**
- **Propose Next Years AWRC Conference Theme**
- **Elicit, from You, Possible:**
 - **WQ Myths, Disinformation, AI Questions and Issues**



Resolutions

15 July 2014 AWRC Conf

- *Wicked* Problems

- Problems Have Solutions

- Issues Have Resolutions

- (Re-solve)

What are **Wicked Problems**?

Gun Control

**Health
Care**

Racism

Wetlands

Immigration

Terrorism

Water

Poverty

Management

Genetically

Nanotechnology

Income

Modified

Inequality

Foods

Crime

Arkansas

**Global Climate
Change**

Middle

**Educational
System**

East

Some *Wicked* Issue Attributes

(Rittel & Webber 1973)

- Defining the problem is the problem
- Interdependent and multi-causal
- Unintended consequences
- No stopping point
- Evolve as being resolved
- Not right/wrong; just better/worse
- One shot

Decision Makers Don't Have A Right To Be Wrong



*There was one time
I thought I was
wrong, but I was
mistaken.*

“Good” WQ
is a Wicked Problem
(Social Mess)

Selected AR WQ Issues

**Court Rules on
Wetlands - Again**

**Cattlemen angered over
water pollution**

**Drinking Waters -
Hidden Dangers**

**Arkansas polluting the
Illinois River**

**Water Pollution
Still A Top
Concern**

**PFAS
Forever**

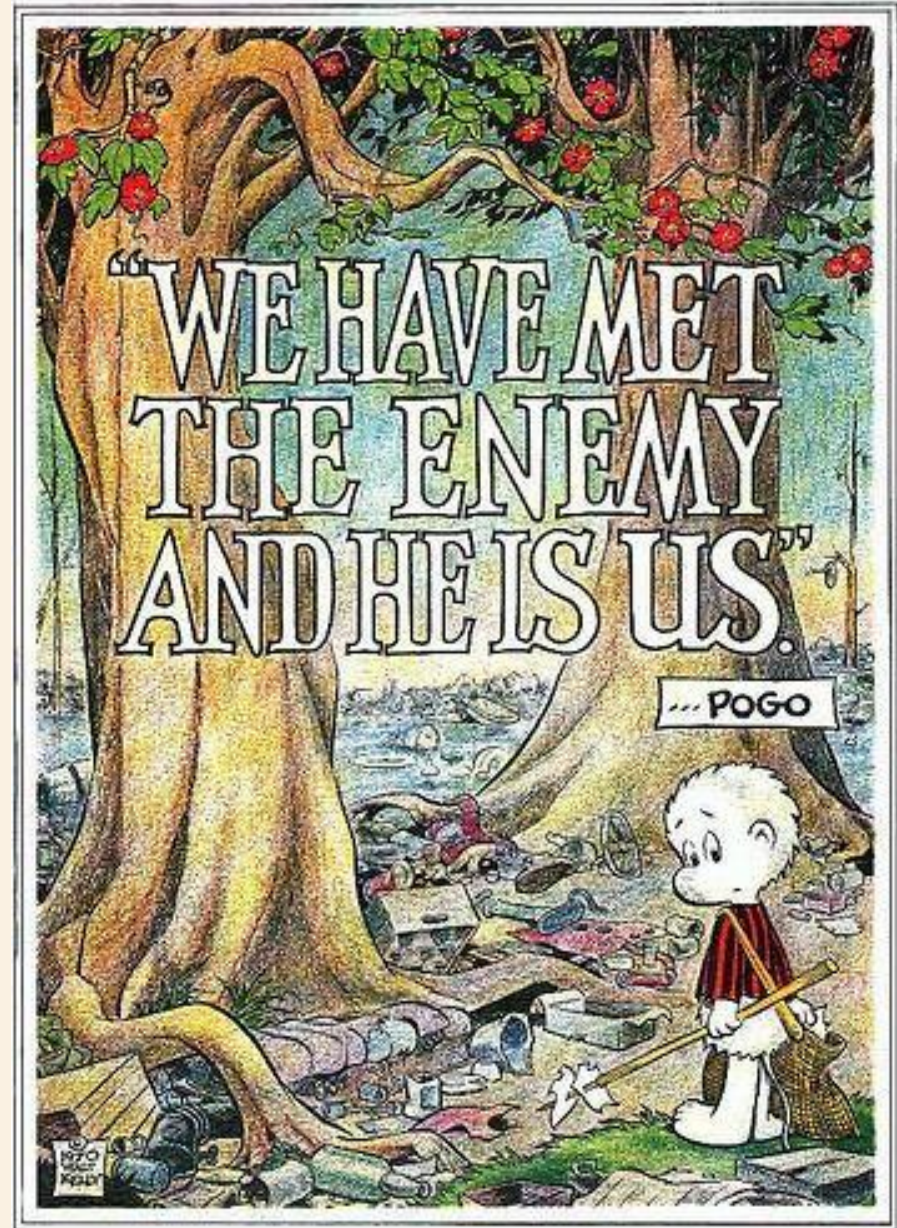
**Algal Blooms
Causing T&O**

**Bacteria Close
Swimming Beach**

**What contributes
to “Good”WQ
as a *wicked*
problem?**

Desired Uses, Biases, and Prejudices

Us vs Them



Ideology & Polarization



Disinformation

(after Wu et. al. 2018)

Urban Legend

Fake News

Unverified
Information

Rumor

Trolling

Spam

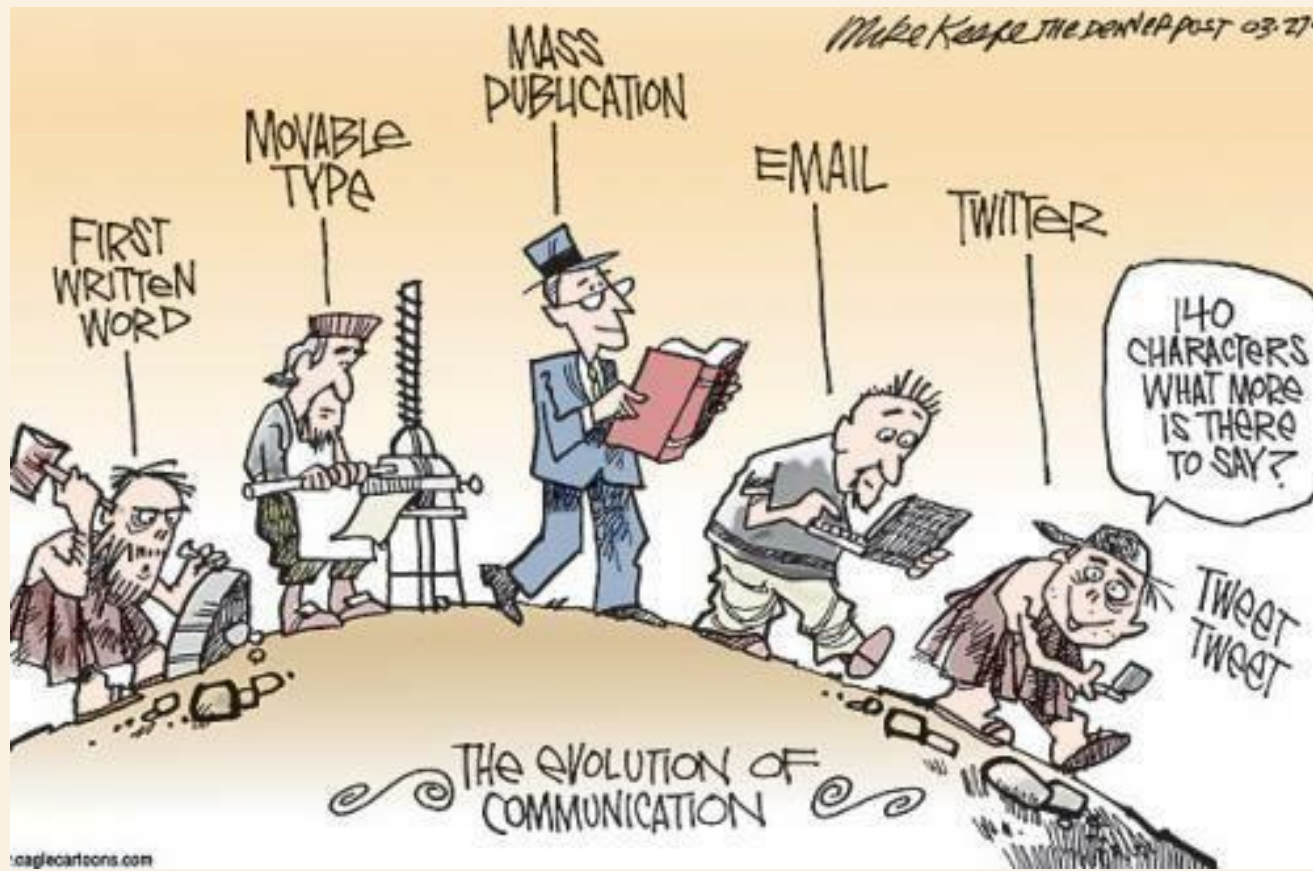
Half-Truths

Hate Speech

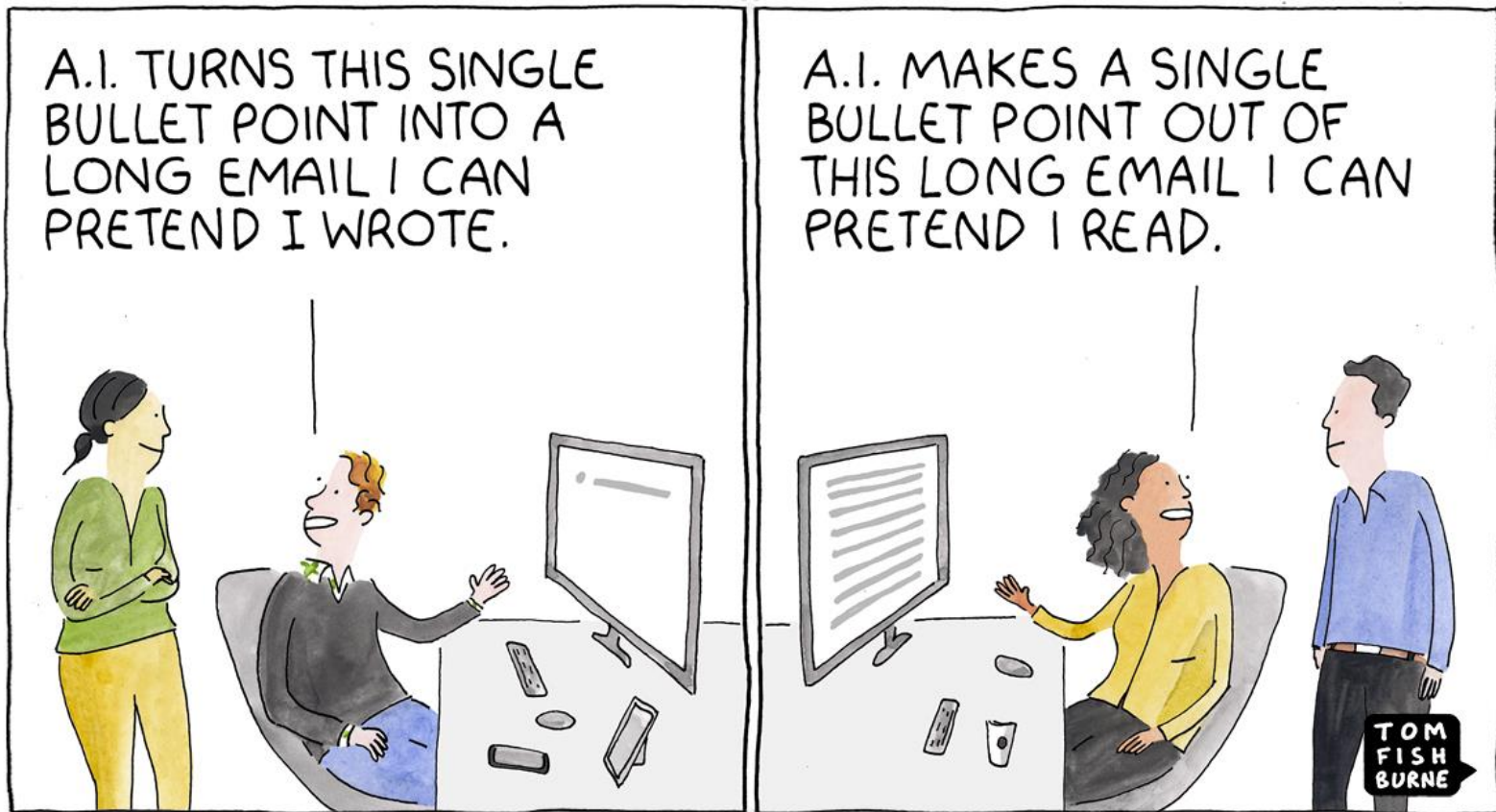
Cyberbullying

Propaganda

Keep It Simple Just the Bottom Line, Man!



Next Generation AI



**What
to
do?**



Start With a Shared Understanding

- **Understanding: Not agreement => Shared understanding**
- **Next Years Conference Proposal**
 - What WQ myths concern you?
 - How is polarization over these myths affected by disinformation and AI?
 - How can we **resolve** these differences?

Your Thoughts

1. Interest in such a conference?

2. Preliminary ideas/Concerns...

- **WQ Myths, Disinformation, and AI**
- **Resolutions**

Additional Thoughts

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Thank You

*See You Next
Year*