



# From 'Fog of War' to Reducing Noise in Daily Operations

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# Bottom Line Up Front (BLUF)

- **The Problem:** Information overload, bias and inconsistency reducing the quality of human decision-making.
  - ‘Fog of war’ and ‘noise’ as metaphors for an exponential increase in complexity which influences decision fatigue and uncertainty in decision-making.
- **Toward the Solution:** Learning to filter out noise, isolate important outcomes and ignore the rest.
  - ‘Clarity’ and ‘signal’ as metaphors for the rapid improvement of human-machine decision capabilities + new mental models for getting there.
  - Planting the seed, individually
  - Planting the seed, organizationally

OVER THE **LAST TWO YEARS** ALONE **90%** OF THE DATA IN THE WORLD WAS GENERATED



EVERY MINUTE OF EVERY DAY:

Snapchat users share 527,760 PHOTOS



Users watch 4,146,600 YouTube videos



Instagram users post 46,740 PHOTOS



More than 120 PROFESSIONALS join LinkedIn



15,000 GIFs are sent via Facebook messenger



There are 154,200 CALLS on Skype



456,000 TWEETS are sent on Twitter



There are 990,000 Tinder swipes



We send 16 MILLION text messages

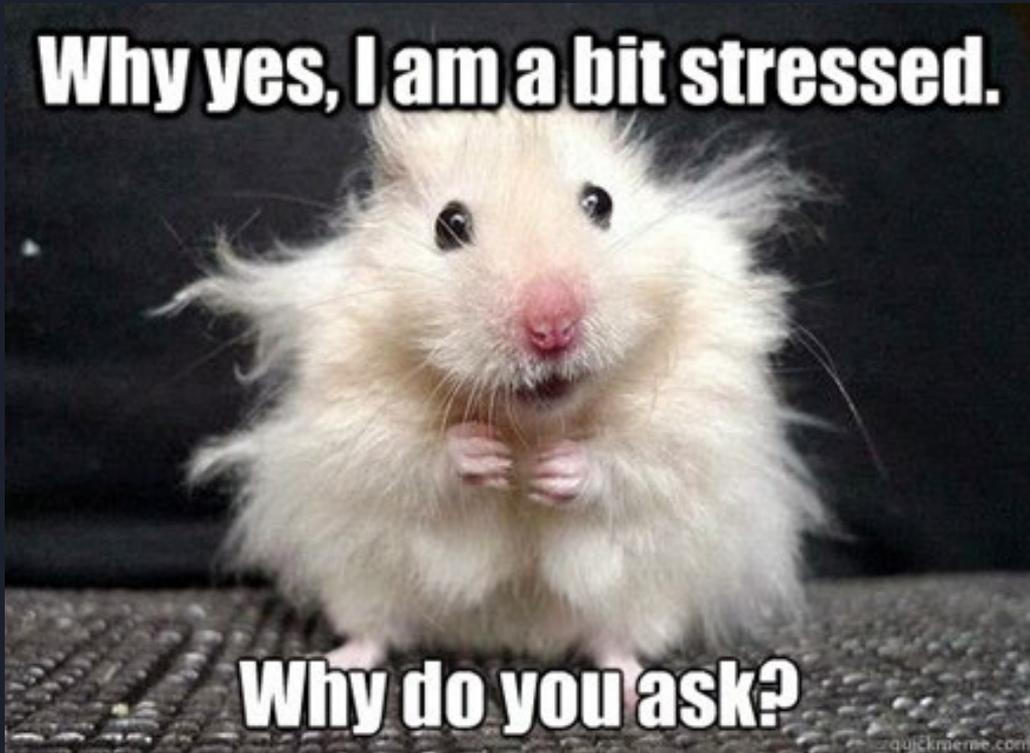


103,447,520 SPAM emails are sent



156 MILLION emails are sent; worldwide it is expected that there will be 2.9 billion email users by 2019





**Why yes, I am a bit stressed.**

**Why do you ask?**

quickmeme.com

# The Fog of War



Maybe you're thinking, duh...

/me Removes sunglasses dramatically.



BAO XUELIN/Kina via The Associated Press file

The Chinese missile frigate Yulin fires an anti-surface gun battery last month during exercises with Singapore's navy in the South China Sea. Some analysts fear China is elevating its presence in the sea so it can conceal its submarines.

ASIA

## China may be using sea to hide its submarines

...but we have to learn to think differently.

Ready to take things to the next level?

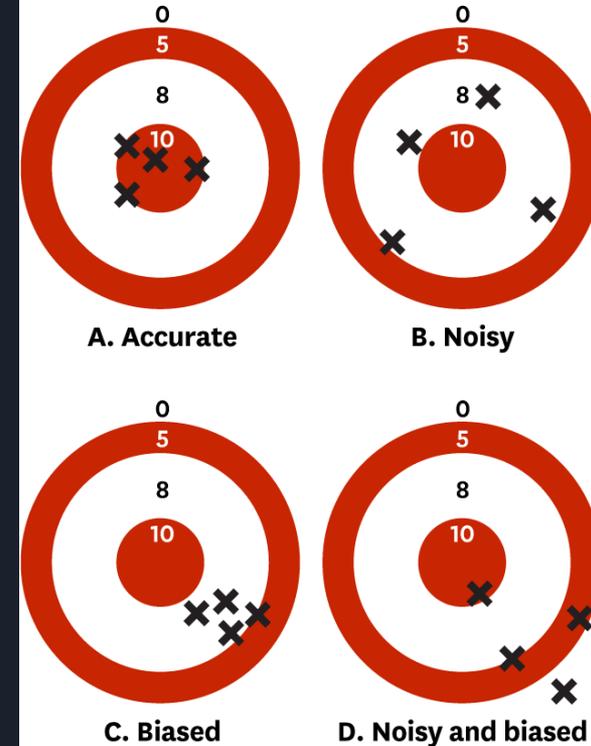
Standing desk hack level 9000.



# What is noise?

- Erratic factors which reduce decision accuracy
- Humans are unreliable decision makers
- Strongly influenced by irrelevant factors, such as... **Current mood**, **Time since last meal**, **The weather**
- Noise is far above the level that executives would consider tolerable—and they are completely unaware of it.

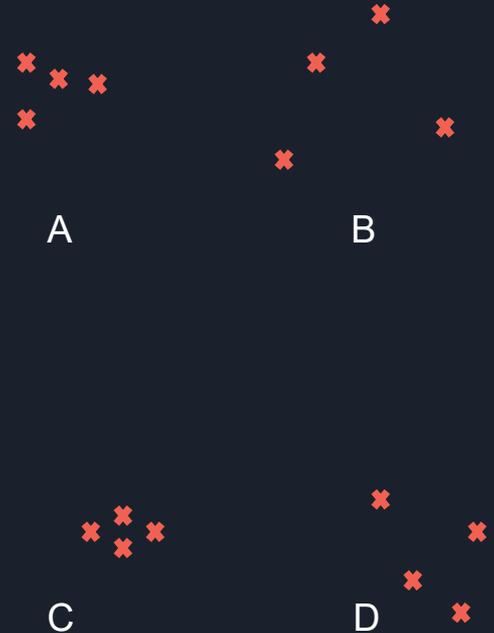
## How Noise and Bias Affect Accuracy



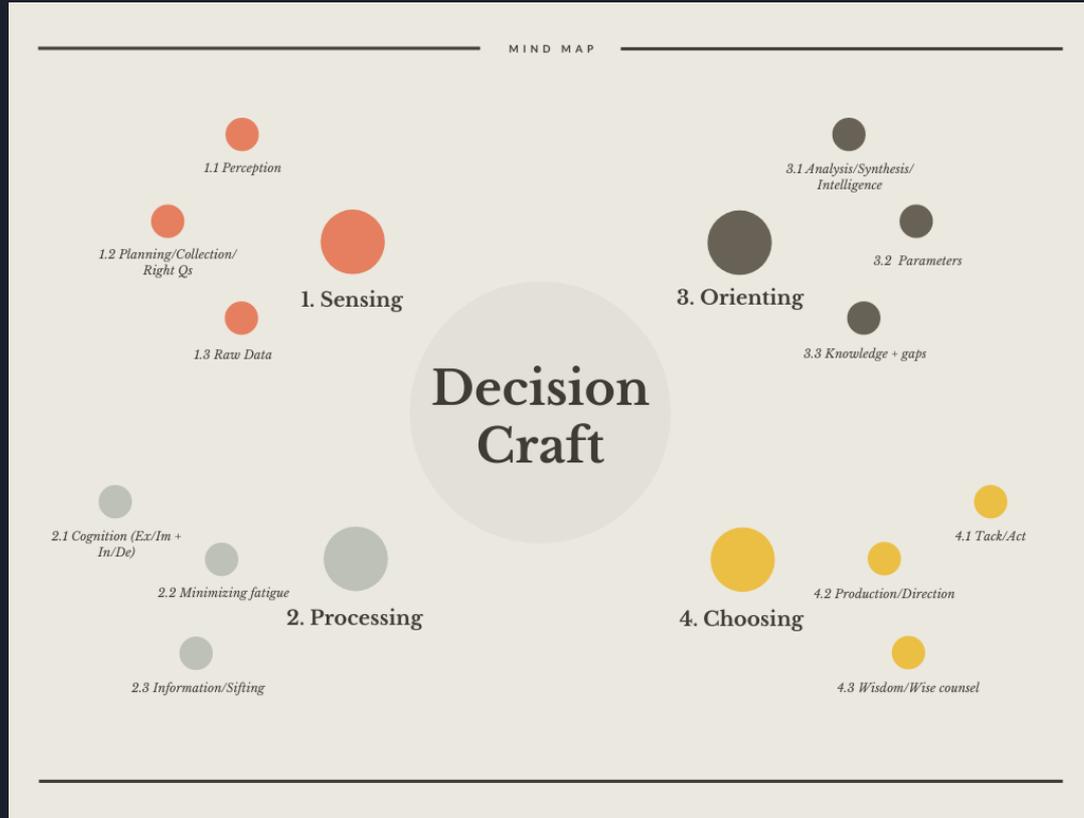
SOURCE DANIEL KAHNEMAN,  
ANDREW M. ROSENFELD,  
LINNEA GANDHI, AND TOM BLASER  
FROM "NOISE," OCTOBER 2016

## Noise Cont...

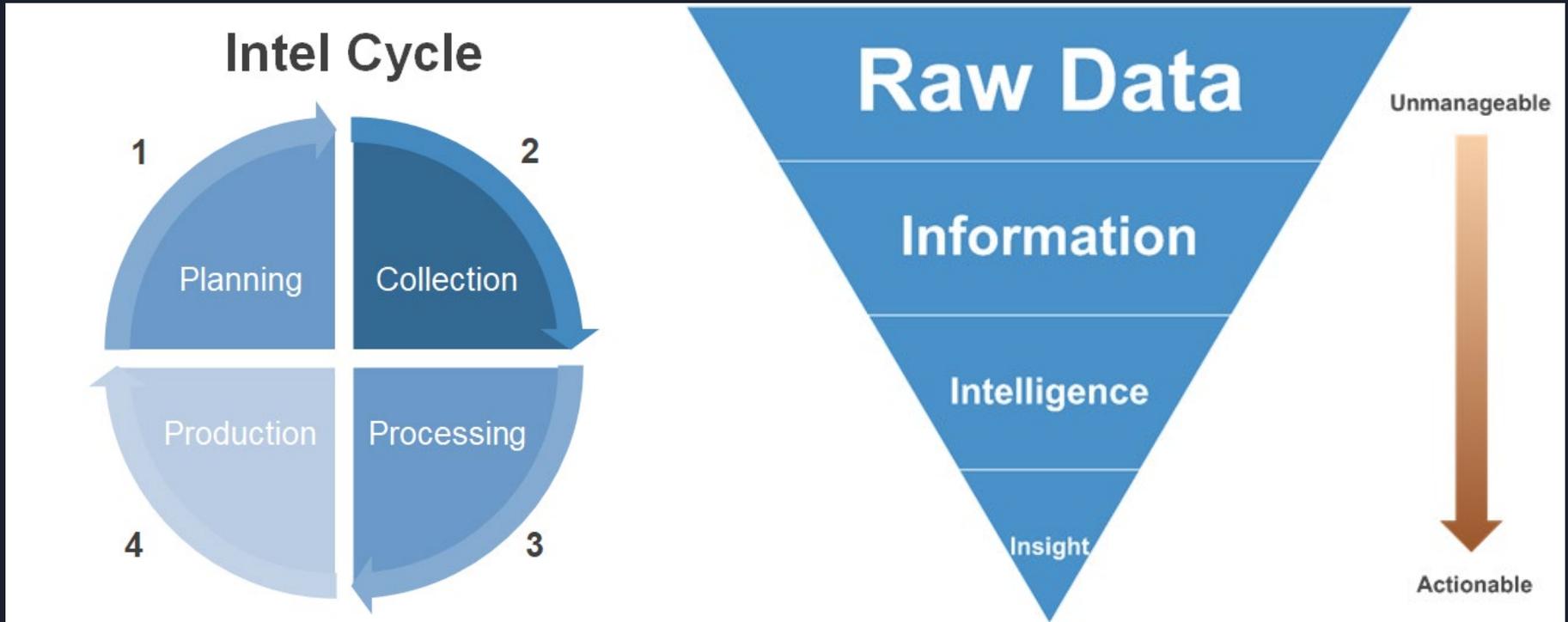
- Noise Audits
- Unlike bias, noise can be measured without knowing what an accurate response would be. **To illustrate...**
- The ultimate goal is to improve the quality of decisions
- Not just reducing uncertainty for the policymaker, but improving the decision quality of the analyst herself
- Better decisions are not achieved merely by reducing general biases (such as optimism) or specific social and cognitive biases (such as discrimination against women or anchoring effects)



# Human decision -making (cognitive psychology)



# How spinning the intelligence cycle helps you eliminate noise...





# Practical Tips

- Identify what you are most vulnerable to
- Gather data central to that topic
- Take time to assess possible outcomes
- Narrow the body of implications
- Decide, Act

# Example 1: PIRs for security & business

## ENEMY OFFENSE

PIR: "Will the enemy launch a regimental- or battalion-size attack within my sector in the next 12 hours?" - Commander

Indicator: Reconnaissance and destruction of our defensive obstacles.

NOTE: Usually the night preceding an attack, enemy patrols reconnoiter friendly obstacles to determine a plan for clearing lanes. The patrol destroys only those obstacles that will not disclose the direction of the main attack. - Threat Knowledge



*What emerging threats or vulnerabilities from the last 90 days must general end users understand?*



*What are some new threats and vulnerabilities?*



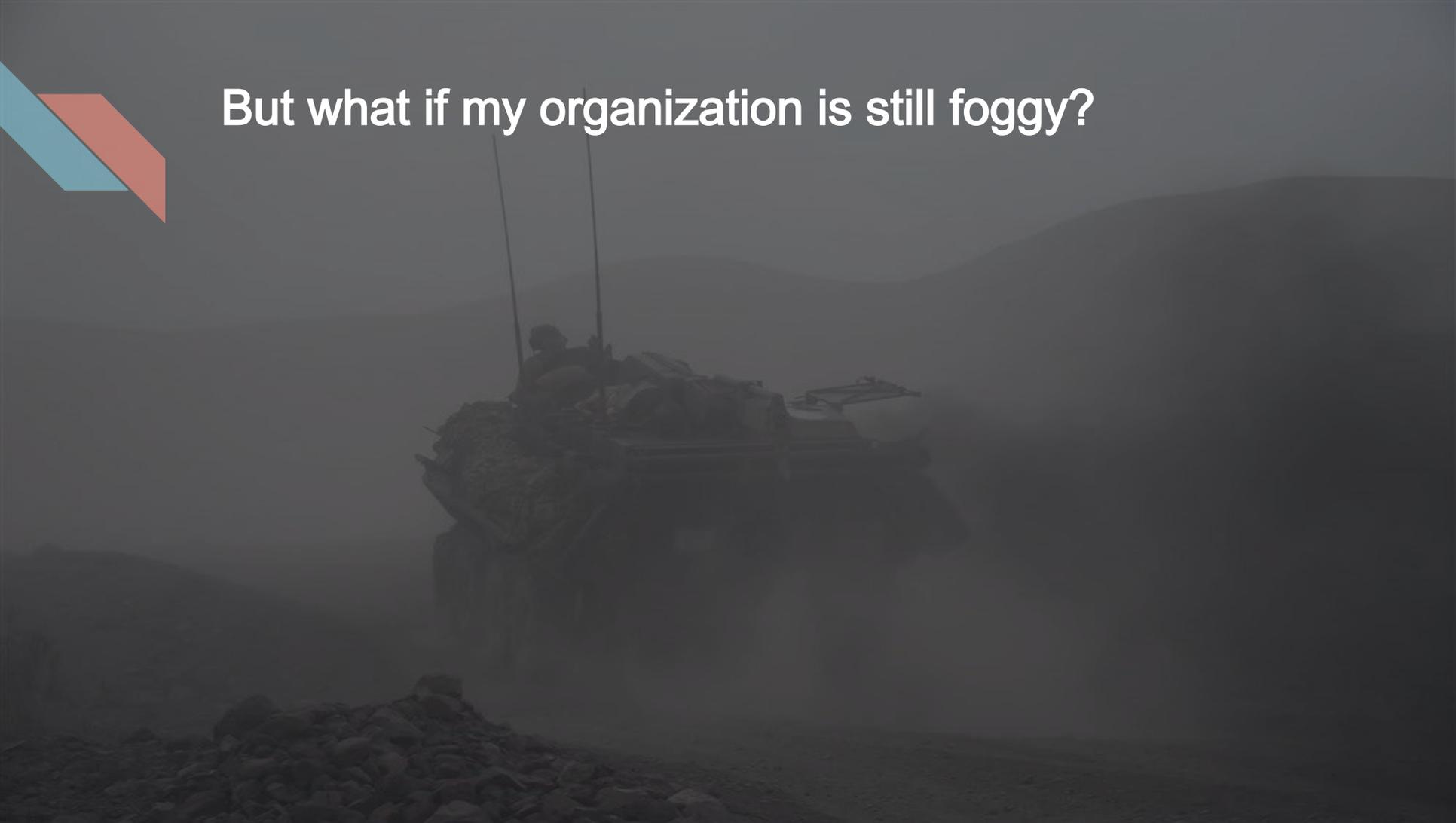


# Why?

- Improve decision outcomes
- Reduce decision fatigue
- Learn from mistakes
- Mitigate risk
- Enable competitive business decisions
- Reduce stress
- Save money, time & jobs



But what if my organization is still foggy?

A person is seen from behind, sitting on a raft or a small boat, navigating a narrow river. The scene is heavily shrouded in fog, with the surrounding hills and the water's surface appearing as soft, indistinct shapes. The overall atmosphere is one of uncertainty and lack of visibility, which directly relates to the text above.

## Chinese Proverb

The best time to  
plant a tree was  
20 years ago.  
The second best  
time is now.

*~Chinese Proverb*



# Planting the Seed, Organizationally



# Strengths Weaknesses Opportunities Threats

1. IT Operations
2. IT Security
3. Business Risk & IT Risk
4. Business Processes
5. External Factors

## The SWOT Analysis Tool

<b>INTERNAL</b>	<b>S</b> Strengths	<b>W</b> Weaknesses
<b>EXTERNAL</b>	<b>O</b> Opportunities	<b>T</b> Threats
	<b>POSITIVE</b>	<b>NEGATIVE</b>

# Stakeholder Analysis

1. IT Operations
2. IT Security
3. Business Risk & IT Risk
4. Business Processes
5. External Factors

## Stakeholder Map: Who Needs What?



Where can we go?

**PAIN** IS  
WEAKNESS  
LEAVING THE  
**BODY**



# How can we get there?



# Filter & Fine tune!





# References

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