

COMMUNICATE

How will you convey what you learned in this class in a 30-second pitch?

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- Once Upon a Time ...
- Every Day ...
- Until one day ...
- Because of that ...
- Because of that ...
- And ever since then ...

Agenda

AM

- EL Presentations
- On Communication

PM

- Course Summary
- Course De-Brief
- End-of-term survey

Map of the Term

TACTICAL

Process Optimization

Decisions are based on **how** to make improvements

Creativity, Noticing

Decisions are based on **what** insights you can come up with

RISK

Forecasting

Decisions are based on **what** you're trying to optimize

PHILOSOPHICAL

Fail Fast; Gain Experience

Decisions are based on **why** something should be done

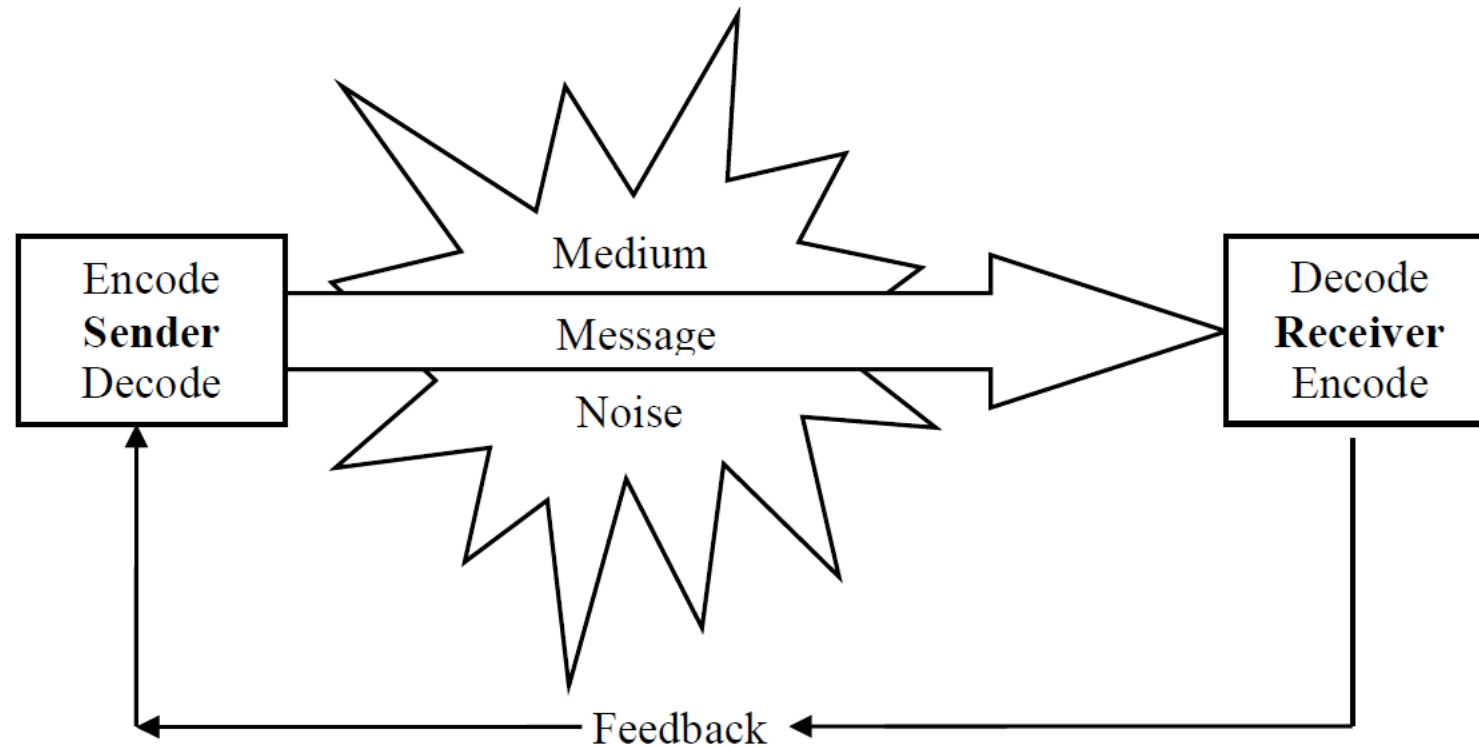
INNOVATION

Communications

Communication (noun) :

The imparting or exchanging of information or news.

Means of connection between people or places, in particular



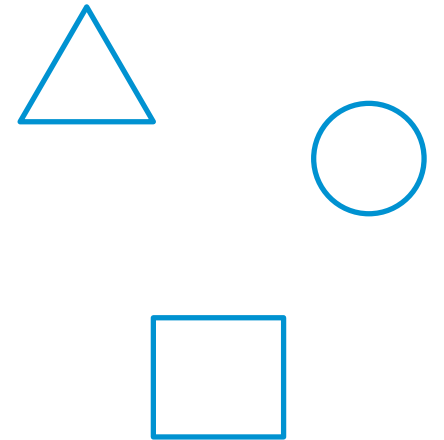
What is information?

Information (noun) :

- Facts provided or learned about something or someone
- What is conveyed or represented by a particular arrangement or sequence of things

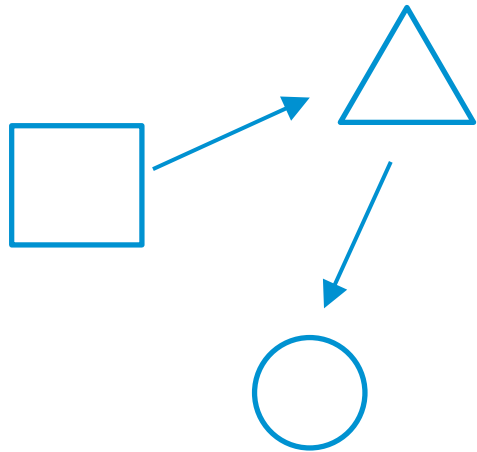
Physical Representation: Shapes

- Static – does not change with time.
- If information changes, then it is really just **new** information
- The old information is still relevant because it describes the old context



Most problems have two components

- The “Static” component: What information is being documented?
- The “Dynamic” component: What information is being transacted and between whom?



Financial:

Balance Sheet: A Static snapshot of your assets and liabilities

Income Statement: Actions taken between two balance sheets

Marketing:

Brochure : A Static description of your company.

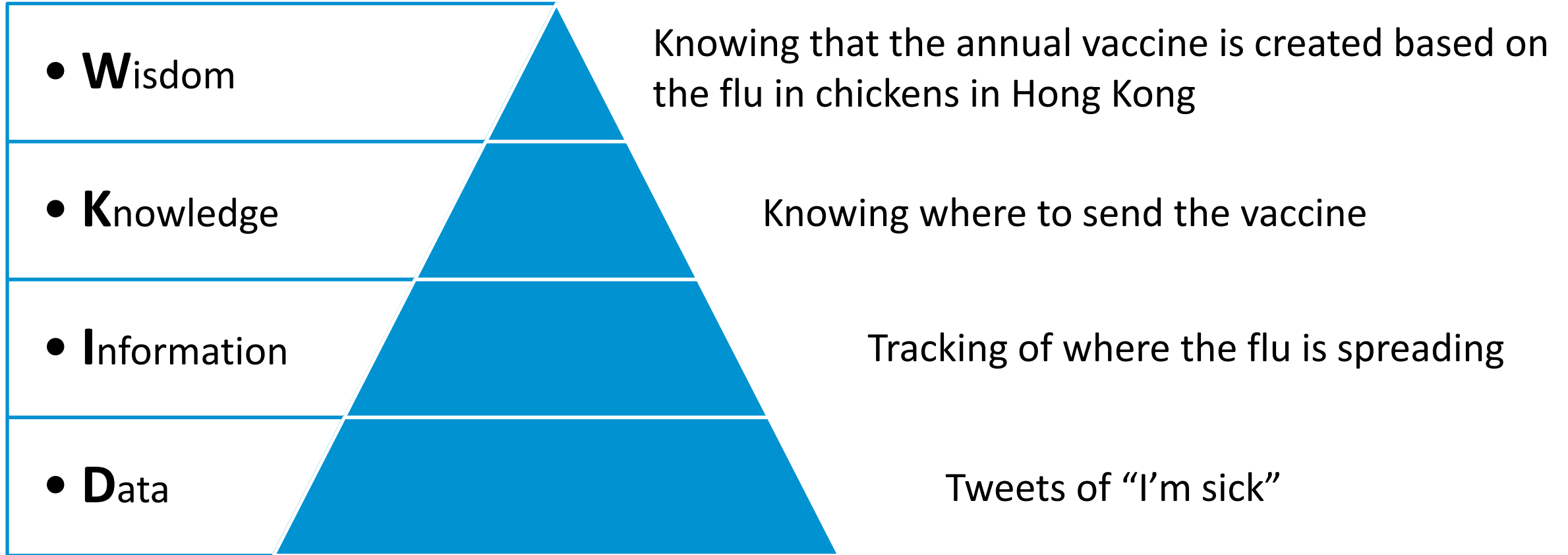
Channel: Actions taken to transmit the brochure.

Football:

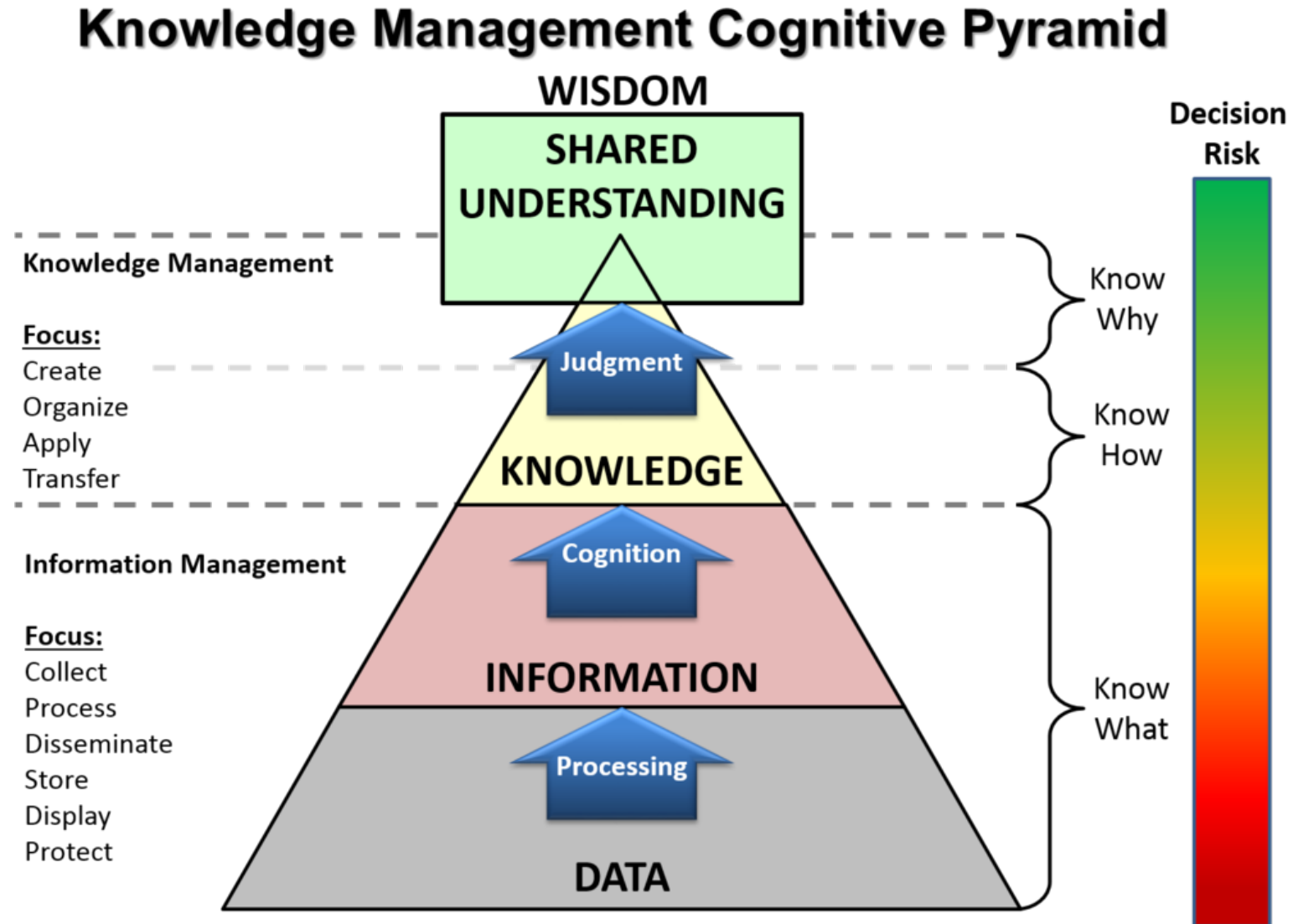
Play: A Static formation of players picked to get to your goals

Beginning the Play: Actions taken to execute the play.

DIKW

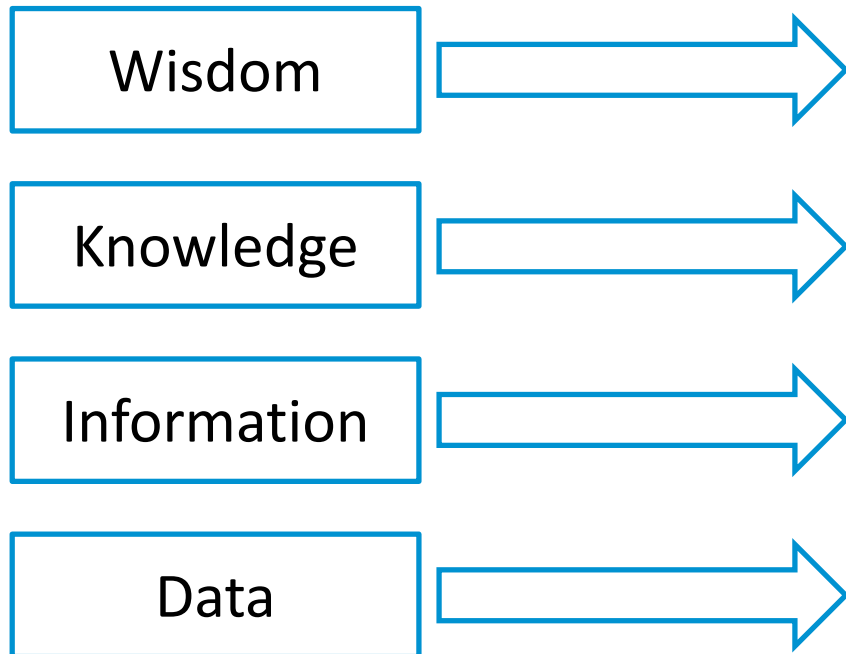


How Knowledge Management Works

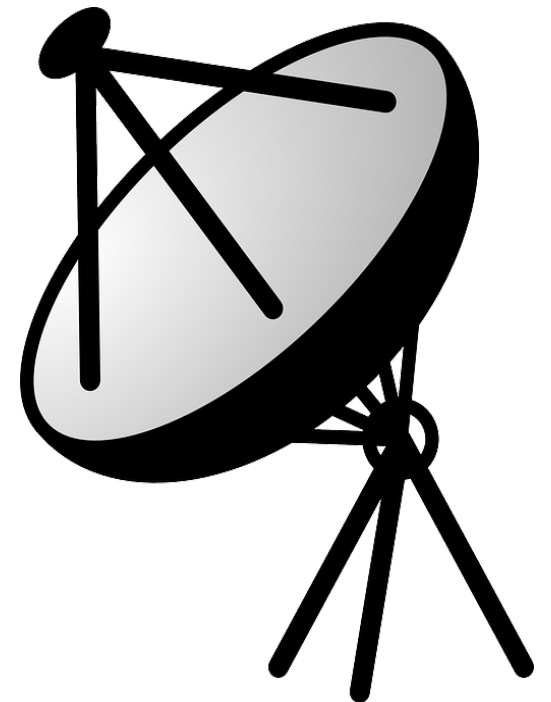


Transmitting and Receiving

- If there is skill in ***crafting*** communications in each DIKW level there is also a skill in ***receiving*** communications in each DIKW level.



Are there skills for
receiving communications?

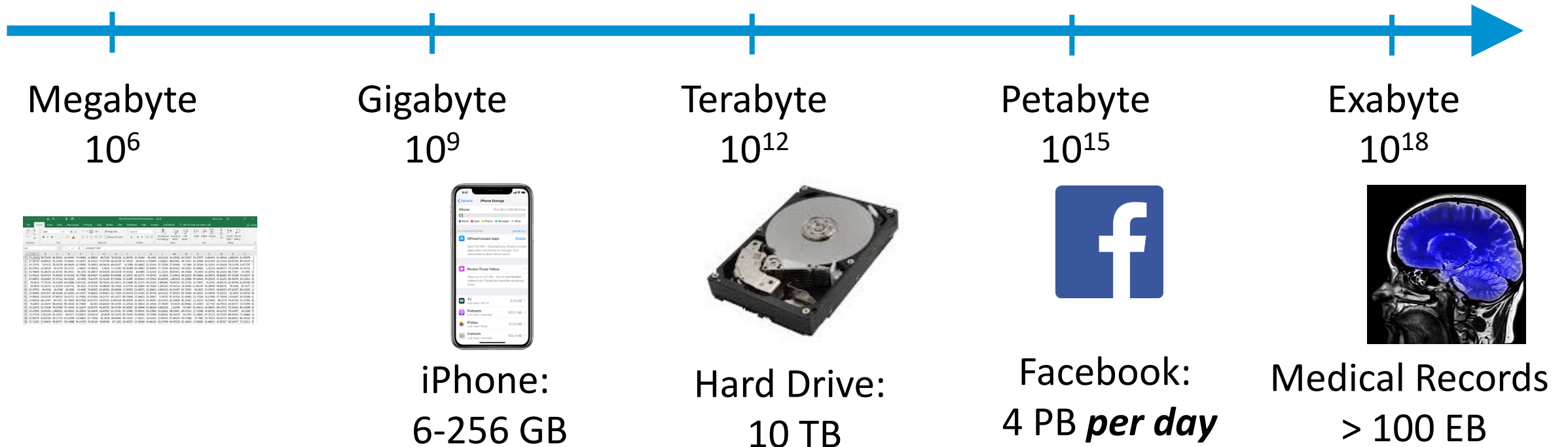


What is Data?

- Data comes from Sensors, Headlines, your senses (sight, sounds, etc.)
- **How to communicate:** Highly transactional, raw data, descriptions.
- **How to “optimize”:** Send more data!
- **Disadvantage:** Noisy. What’s important?
 - Prioritization of data comes from the “Information” I need
- ***Data*** gets synthesized into ***Information***

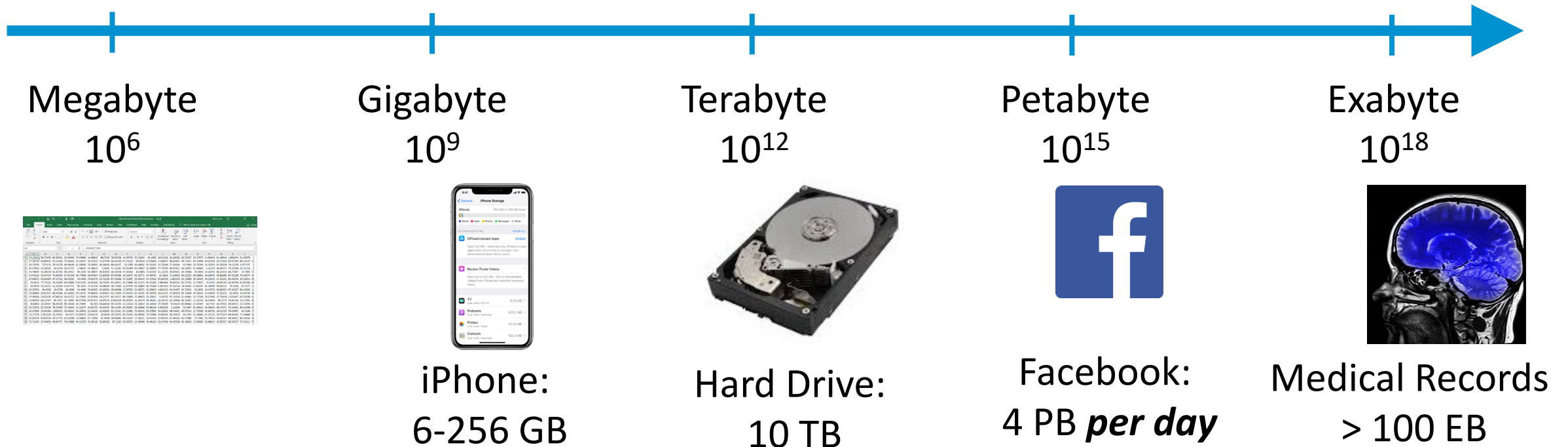
Properties of Data

- We are *deluged* with data!



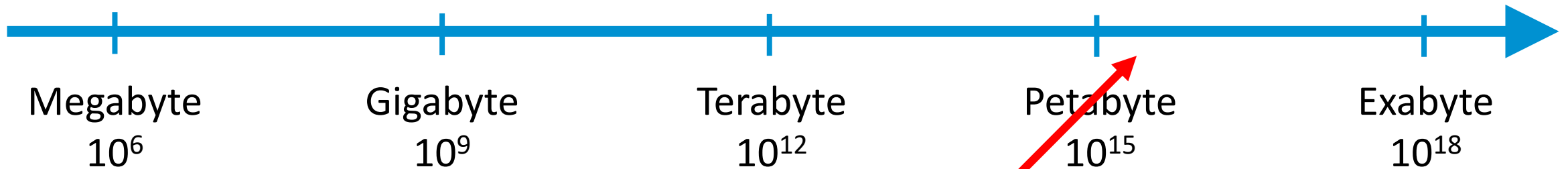
Properties of Data

- Understand the **reliability** of the data
 - Manual entry ~96% for single entry,
 - Double entry ~99.995% for double entry (two people enter the data; entries are compared and reconciled.)
 - Automatic entry ~ 99.99%

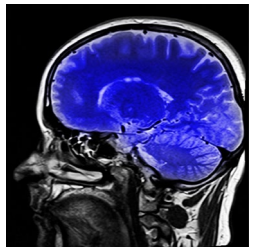


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100 EB x 99.99% accuracy
=
10 PB of error in the data!



Medical Records
> 100 EB

DATA

TRANSMITTING

- Send everything
- More is better

Worldwide trends · [Change](#)

[#TrayvonMartinStory](#)

The docu-series premieres tonight at 10/9c on @ParamountNet & @BET

 Promoted by Paramount Network

[#FelizLunes](#)

57K Tweets

[#InternationalFriendshipDay](#)

50K Tweets

[#MondayMotivation](#)

@jasongrimes is Tweeting about this

[Cuca](#)

7,317 Tweets

[#30Jul](#)

47.4K Tweets

[#NationalCheesecakeDay](#)

10.2K Tweets

[Religious Liberty Task Force](#)

26.4K Tweets

[Bow Wow](#)

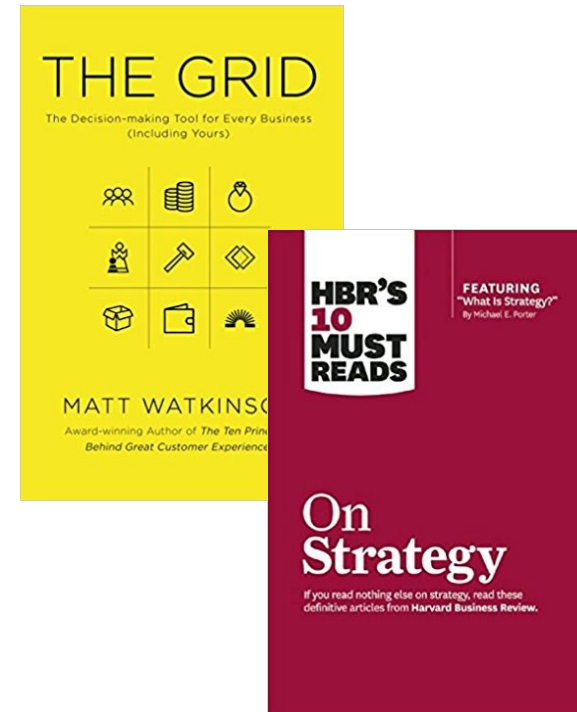
15.6K Tweets

[シャイニングマンデー](#)

60.2K Tweets

RECEIVING

- Read everything
- Listening



What is Information?

- Trends and synthesis of the data.
- **How to communicate:** Graphs, analytical article,
- **How to improve:** analytical techniques (Statistics, etc.)
- **Disadvantage:** Is the information relevant to the context?
 - Prioritization of Information comes from the “outcomes” I want.
- How do you know what’s important to your goals? → ***Knowledge***

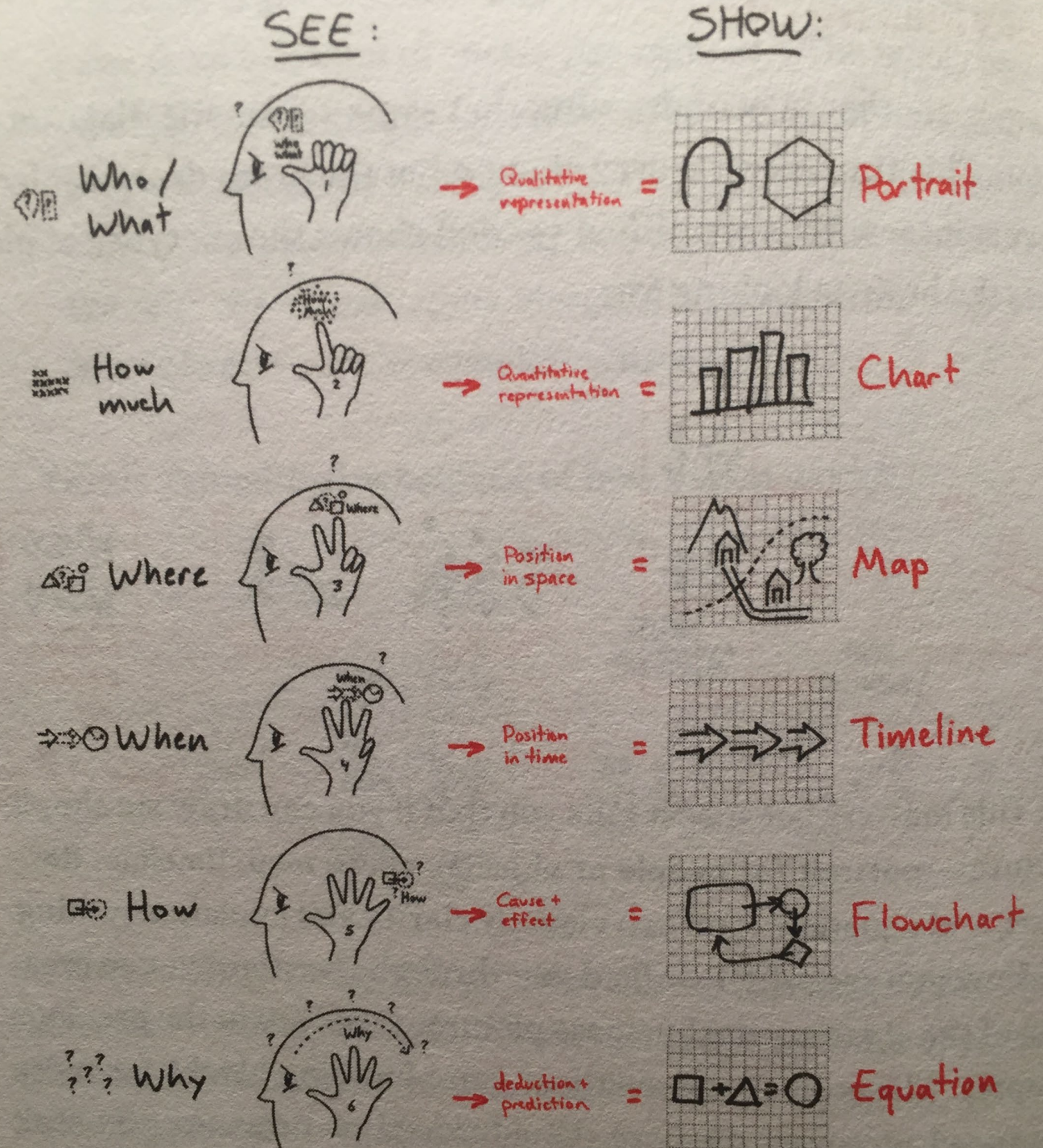
Information



A CRASH COURSE ON HOW TO LEAD,
SELL, AND INNOVATE WITH YOUR VISUAL MIND

DAN ROAM

BESTSELLING AUTHOR OF THE BACK OF THE NAPKIN



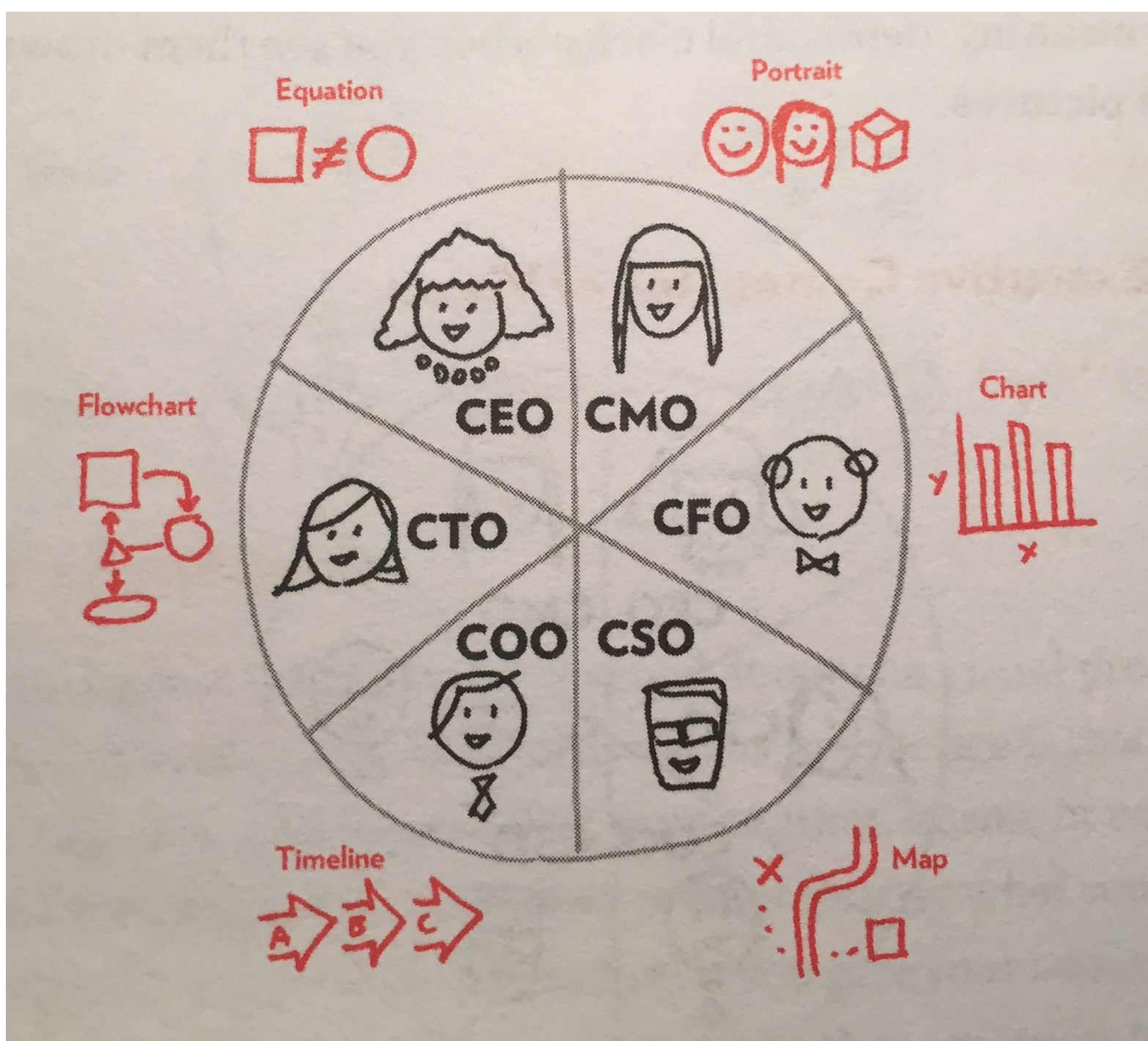
Information



A CRASH COURSE ON HOW TO LEAD,
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A story outline is just a framework!

6-Sentence Story

Once upon a time ...
Every day ...
Until one day ...
Because of that ...
Because of that ...
And ever since then ...

Chasm Statement

For ... (*target customers*)
who are dissatisfied with ... (*the current market alternative*)
our product is a ... (*new product category*)
that provides ... (*key problem-solving capability*)
Unlike ... (*the product alternative*),
our product ... (*describe the key product features*)

Pitch outline

- Opportunity
- Problem
- Solution
- Target market
- Traction / validation
- Go-to-Market strategy
- Competition
- Revenue model
- Team
- Financials
- Exit plan / recent exits
- Ask / use of funds


The outline for this lecture...!

The Story	The Lesson	The actual content
Once upon a time...	We wanted to tell everyone all the stuff we learned from the last 5 months.	Elevator pitch as the problem
Every day...	We superficially talked about the content of the class.	
Until one day...	We realized that different complexities of ideas had to be communicated with different mechanism	Introduce DIKW
Because of that ...	We examined the complexities of DIKW	Properties of each level of DIKW
Because of that ...	We examined encoding and decoding of DIKW	Transmission / receiving complexities
And ever since then ...	We could tailor our messaging in the most effective manner.	Knowledge and Wisdom

INFORMATION

TRANSMITTING

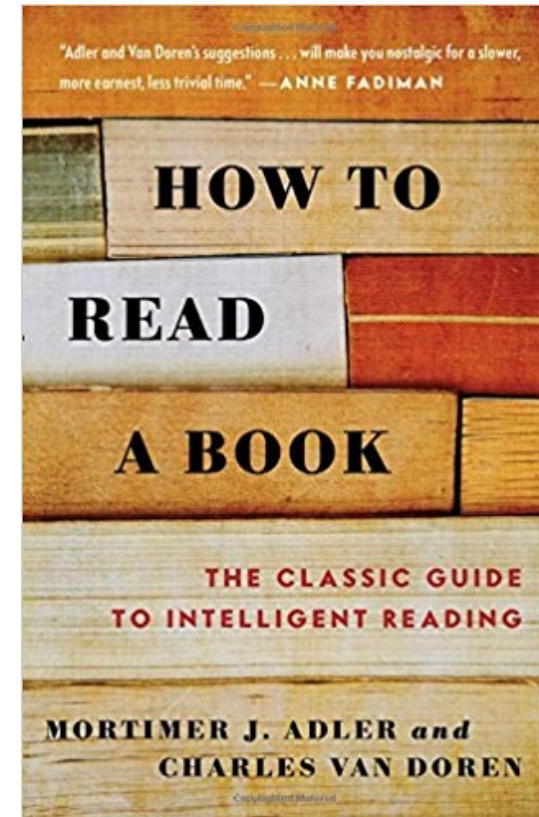
- Structure to paragraphs
- Story frameworks and scripts

	<p>SUS6050 STRATEGY Jimmy Jia SPRING 2018, 4 CREDITS</p> <p>SUS 6050 Spring 2018 Syllabus Table of Contents</p>
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RECEIVING

- How to read
- How to *comprehend*



What is Knowledge?

- Knowledge is expertise and experience. It helps you pick which information to listen to.
- **How to communicate:** Teach, mentor
- **How to improve:** pedagogical techniques, such as the Socratic method.
- **Disadvantage:** Takes a long time ... regardless of “intelligence”.
 - Prioritization of which knowledge to gain is based on wants, desires, and advice.
- How do you know what knowledge to learn? → ***Wisdom***



Frameworks are synthesis of knowledge!

Man in Hole



The main character gets into trouble then gets out of it again and ends up better off for the experience.



Arsenic and Old Lace



Harold & Kumar Go To White Castle

Boy Meets Girl



The main character comes across something wonderful, gets it, loses it, then gets it back forever.



Jane Eyre



Eternal Sunshine of the Spotless Mind

From Bad to Worse



The main character starts off poorly then gets continually worse with no hope for improvement.



The Metamorphosis



The Twilight Zone

Which Way Is Up?



The story has a lifelike ambiguity that keeps us from knowing if new developments are good or bad.



Hamlet



The Sopranos

Creation Story



In many cultures' creation stories, humankind receives incremental gifts from a deity. First major staples like the earth and sky, then smaller things like sparrows and cell phones. Not a common shape for Western stories, however.

Old Testament



Humankind receives incremental gifts from a deity, but is suddenly ousted from good standing in a fall of enormous proportions.



Great Expectations

New Testament



Humankind receives incremental gifts from a deity, is suddenly ousted from good standing, but then receives off-the-charts bliss.



Great Expectations with Dickens' alternate ending

Cinderella



It was the similarity between the shapes of Cinderella and the New Testament that thrilled Vonnegut for the first time in 1947 and then over the course of his life as he continued to write essays and give lectures on the shapes of stories.

The half-life of knowledge

- How much time does it take for a fact to be disproved or replaced?
- Scientific knowledge doubles every ~15 years or increases 10-fold every 50 years.
- It took 45 years for half of what we know about liver disease to be wrong.

Ptolemy's 7 planetary spheres

1	2	3	4	5	6	7
Moon	Mercury	Venus	Sun	Mars	Jupiter	Saturn
☾	☿	♀	☼	♂	♃	♄

**Renaissance planets,
c. 1543 to 1610 and c. 1680 to 1781**

1	2	3	4	5	6
Mercury	Venus	Earth	Mars	Jupiter	Saturn
☿	♀	⊕	♂	♃	♄

Eleven planets, 1807–1845

1	2	3	4	5	6	7	8	9	10	11
Mercury	Venus	Earth	Mars	Vesta	Juno	Ceres	Pallas	Jupiter	Saturn	Uranus
☿	♀	⊕	♂	♁	♃	♄	♅	♃	♄	♅

Planets 1854–1930, Solar planets 2006–present

1	2	3	4	5	6	7	8
Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune
☿	♀	⊕	♂	♃	♄	♅	♆

(Solar) planets 1930–2006

1	2	3	4	5	6	7	8	9
Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune	Pluto
☿	♀	⊕	♂	♃	♄	♅	♆	♇

What the half-life of knowledge implies

Chances are, the longer a piece of knowledge has been around, the higher the likelihood that it is “correct”.

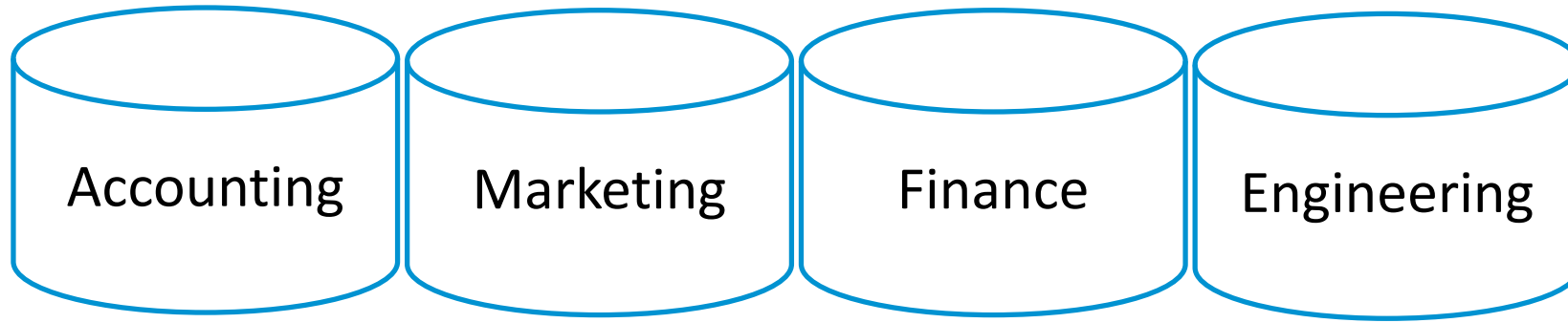
Half of your own knowledge will be obsolete within ~10 years (half-life of a career)

- It would take ~9600 of self-study to stay relevant across a 40-year career.

How one ***learns*** is just as important as how one communicates.

Knowledge Boundaries

- If it takes 10,000 hours to gain expertise and knowledge, we end up in Knowledge Silos and create ***Knowledge Boundaries***.



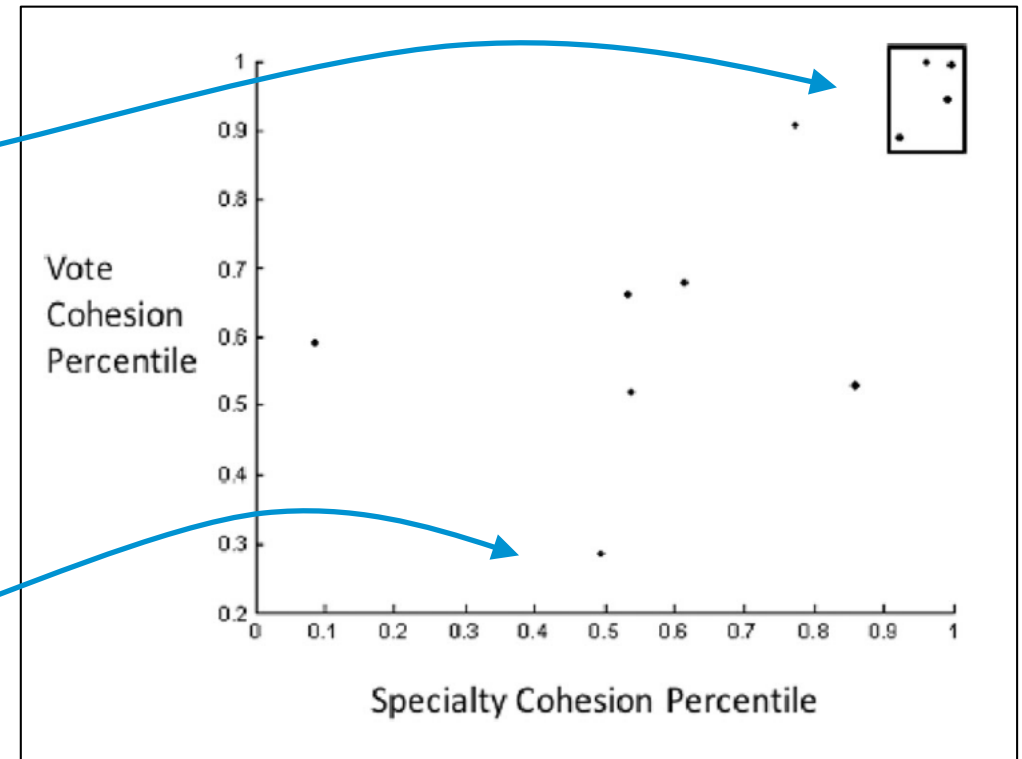
- ***Intentional*** breaking down of boundaries with cross-functional departments
- This creates ***Innovations*** when we combine silos

Knowledge Boundaries Collapse

- ***Unintentional*** collapse of boundaries when experts are faced with a novel situation.

When faced with familiar situation, an FDA medical device approval vote is divided along “knowledge boundaries”

When faced with a novel situation, experts behave like novices, ask basic questions, and vote independently



KNOWLEDGE

TRANSMITTING

- How to teach
- Pedagogy best practices
- Patience



RECEIVING

- How to learn
- Practice, repeating, reinforcing
- (10,000 hours)



What is Wisdom?

- Wisdom is when an action is committed to muscle memory and becomes second nature.
- **How to communicate:** Model, demonstrate.
- **How to improve:** Continuous questioning and seeking better ways of doing things.
- **Disadvantage:** Hard to define. Impossible to know when you're there.

“It takes a lot of practice to make something seem fleeting” – James Levine

“An amateur practices till they get it right. A professional practices until they can't get it wrong again.” – Rochelle Walton

Properties of Wisdom



Oxford University (1096-Present)
has outlasted:

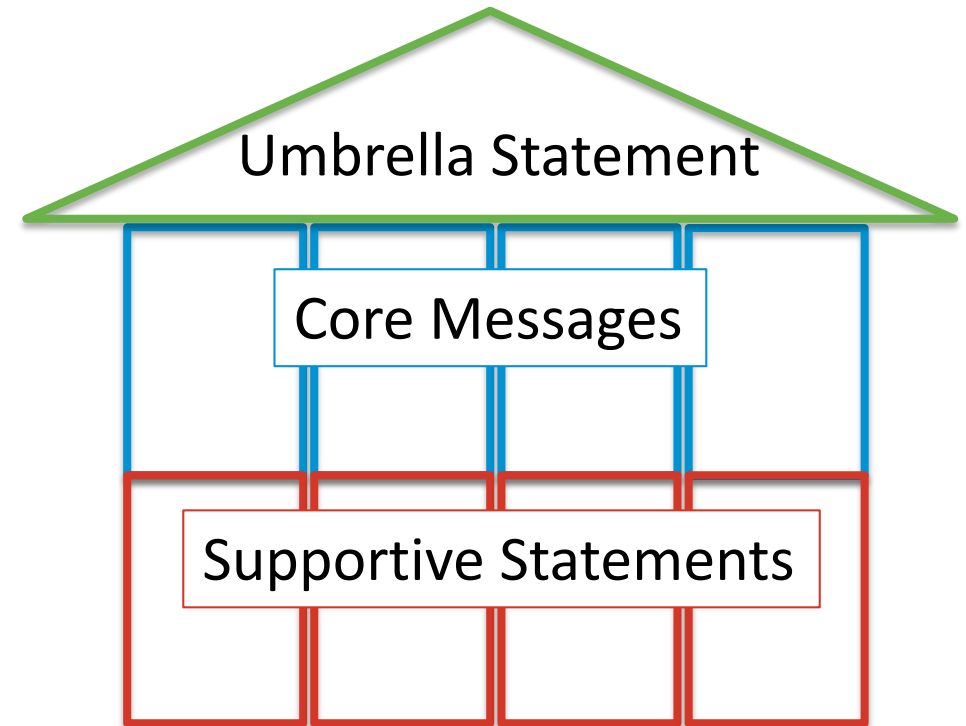
- The Magna Carta (1200's)
- The Black Death (1300's)
- The Aztec Empire (1500's)
- Oliver Cromwell and the British Civil War (1600's)
- Fall of the Empire (1800's)
- World War I and II (1900's)

Is there value in ***institutional knowledge*** that slows down the pace of change?

Message House

An internal document that describes the values of an organization.

- *Umbrella Statement*
 - *Core Message #1*
 - *Supportive statement 1*
 - *Supportive statement 2*
 - *Supportive statement 3*
 - *Supportive statement 4*
 - *⋮*
 - *Core Message #4*



DEM Message House (Umbrella and Core Messages)

DEM takes responsibility of and inspires organizations to consume the right amount of carbon.

- We reveal the right amount of carbon footprint by ***ALIGNING*** resource consumption with business goals.
- We maintain the expertise to be an outsourced Utility Office, helping clients gain ***CONTROL*** by managing utility resources based on the outcomes you want.
- We take ***RESPONSIBILITY*** of non-core utility functions so that clients gain additional capacity to focus on their core business.
- We increase ***TRUST*** by leaving every client better than when we found them.

DEM Message House (Supporting Statement)

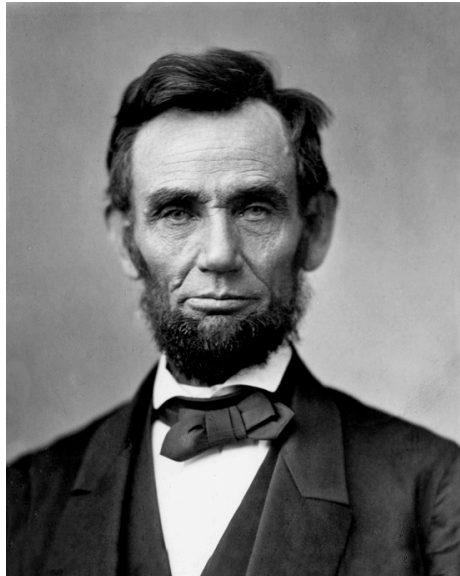
We reveal the right amount of carbon footprint by **ALIGNING** resource consumption with business goals.

- We implement **strategies** that prioritize and balance among competing goals and end-states across an organization.
- We use direct and indirect lifecycle utility resource costs as the **metric** for resource consumption, on both absolute and a per-unit basis.
- We use **data-gathering** tools, to support the organization's **decision-making** processes.

WISDOM

TRANSMITTING

- Modeling to others
- Certainty of values
- Giving of permission



RECEIVING

- Being mentored, apprenticeship
- Intense curiosity
- Taking ownership



Type of Information determines how to transmit it

Type	What this is	Artifacts	Techniques to send ...	Techniques to receive ...	How to practice
Wisdom	Principles. The why	Message house	Modeling	Questioning	Doing, implementing, experimenting
Knowledge	Synthesis, context, experience, patterns	Frameworks, experience, “learn by doing”	Teaching, training	Practicing	Creating frameworks, understanding context
Information	Descriptions, interpretation of the data, trends	Newspaper articles, books, brochures	Talking, writing	Listening, reading	Looking for trends, interpreting trends
Data	Raw data	Tweets, headlines, spreadsheets	Posting raw data	Seeing, sensing	Memorization; highly transactional, easily overwhelmed.

Summary:

- Four types: Data, Information, Knowledge, Wisdom.
- Each type has different modes of transmission and techniques to receive
- Using the right transmission mode to the right type is important.

Questions?