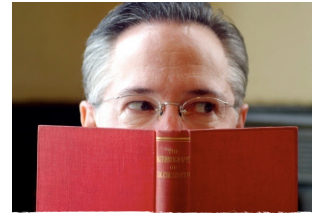


# Thinking Like a Futurist

Tweet the talk: @DavidZach



David Zach  
[www.davidzach.com](http://www.davidzach.com)  
@DavidZach



Download the slide deck:

[www.tinyurl.com/INFOAGDMZ](http://www.tinyurl.com/INFOAGDMZ)

*Thinking Like a Futurist*

Tweet the talk: @DavidZach



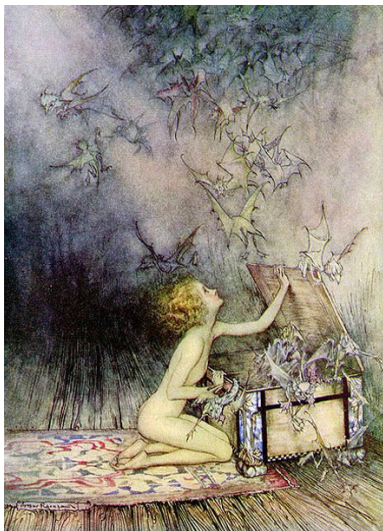
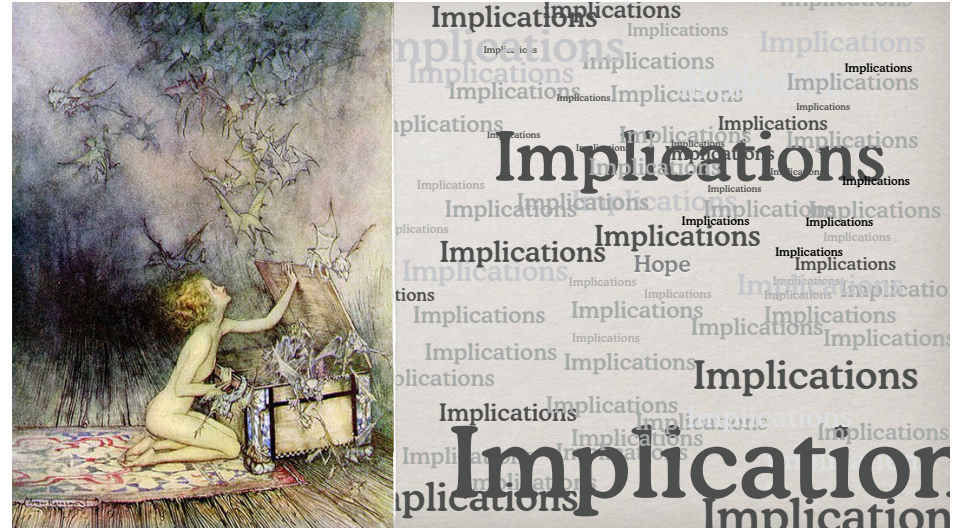
Preface:  
Small bear,  
big questions.





Here is Edward Bear, coming downstairs now bump, bump, bump on the back of his head, behind Christopher Robin. It is, as far as he knows, the only way of coming downstairs, but sometimes he feels that there is really another way if only he could stop bumping for a moment and think of it.

A. A. Milne



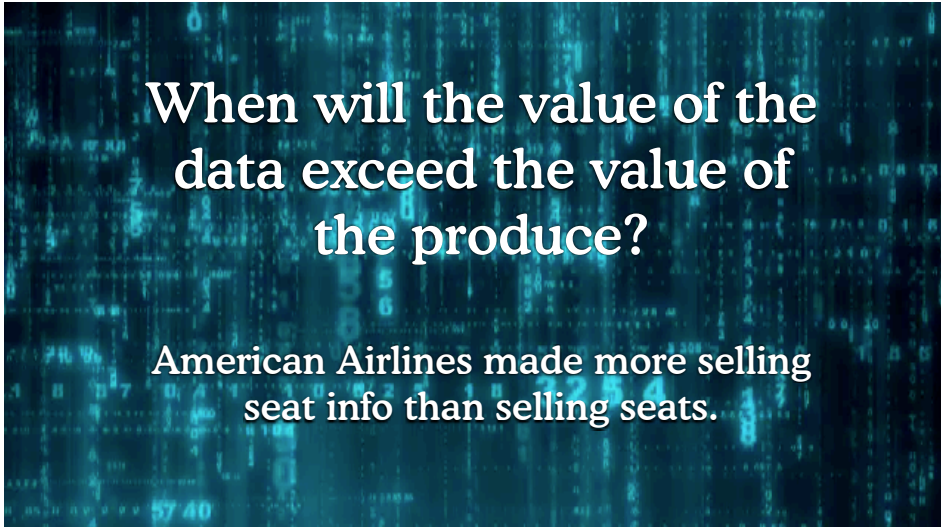
To think like a futurist, do these:

1. Think before you act.
2. Own the consequences of your actions.
3. Be curious about your world.
4. Always have hope.

A. 2025?

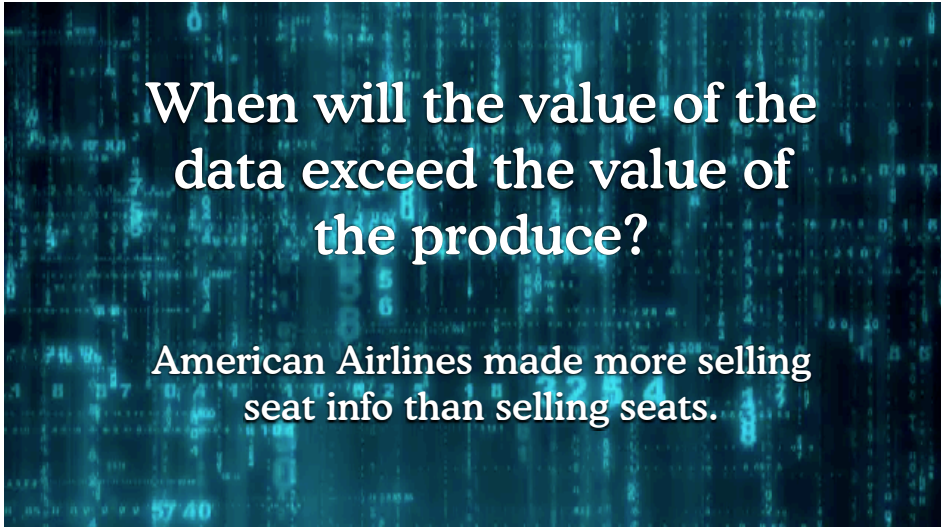






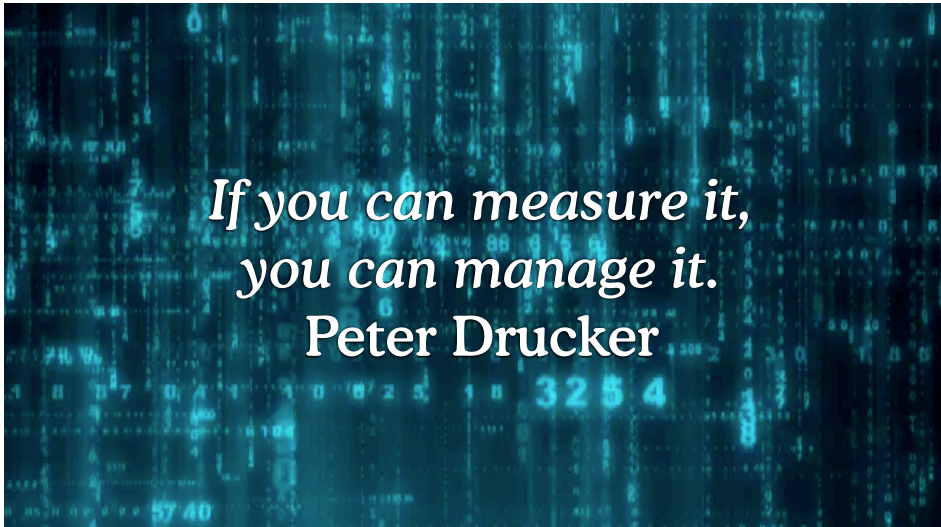
When will the value of the  
data exceed the value of  
the produce?

American Airlines made more selling  
seat info than selling seats.

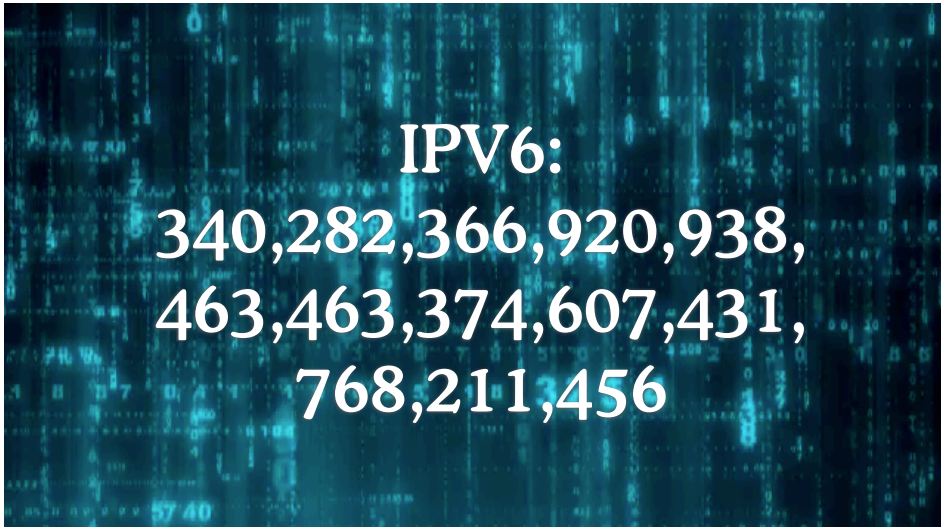


When will the value of the  
data exceed the value of  
the produce?

American Airlines made more selling  
seat info than selling seats.



*If you can measure it,  
you can manage it.*  
Peter Drucker



IPV6:  
340,282,366,920,938,  
463,463,374,607,431,  
768,211,456

*When the only tool you have  
is a hammer, everything starts  
to look like a nail.*  
Abraham Maslow

How do we measure the  
immeasurable?

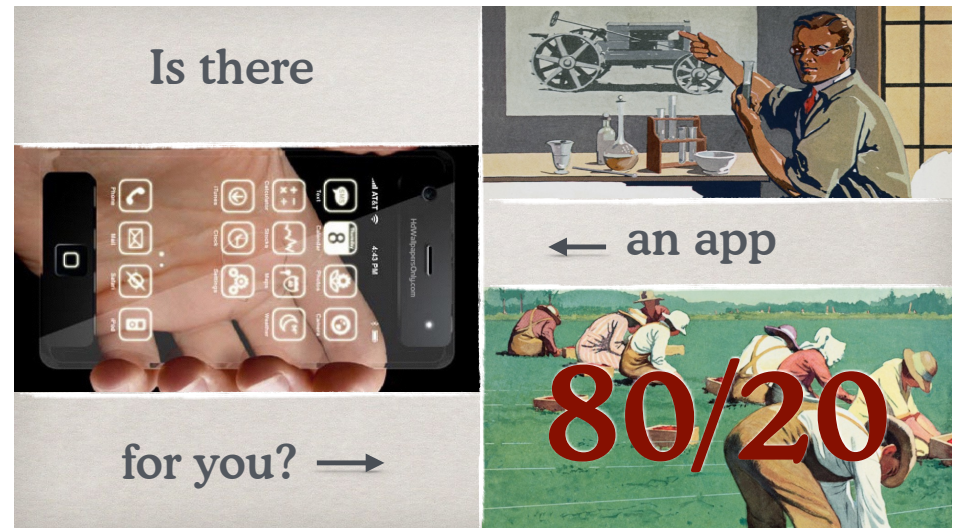
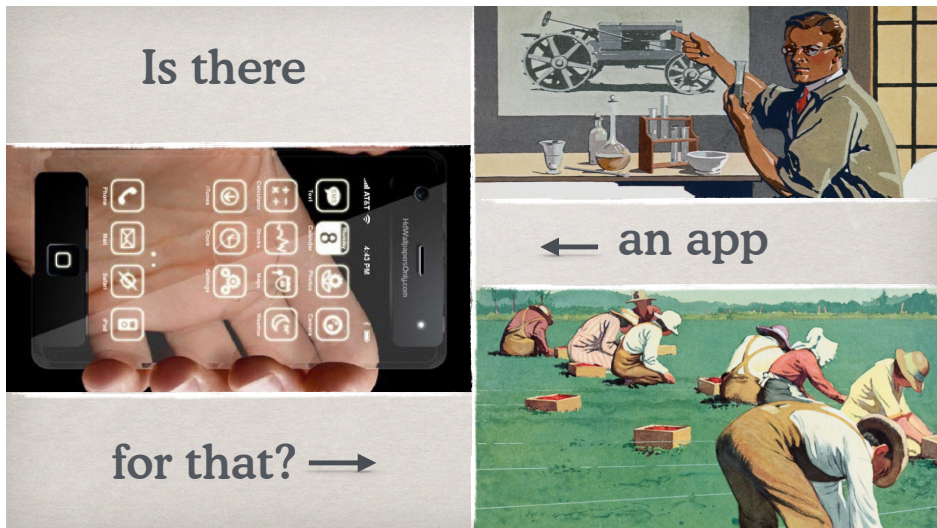
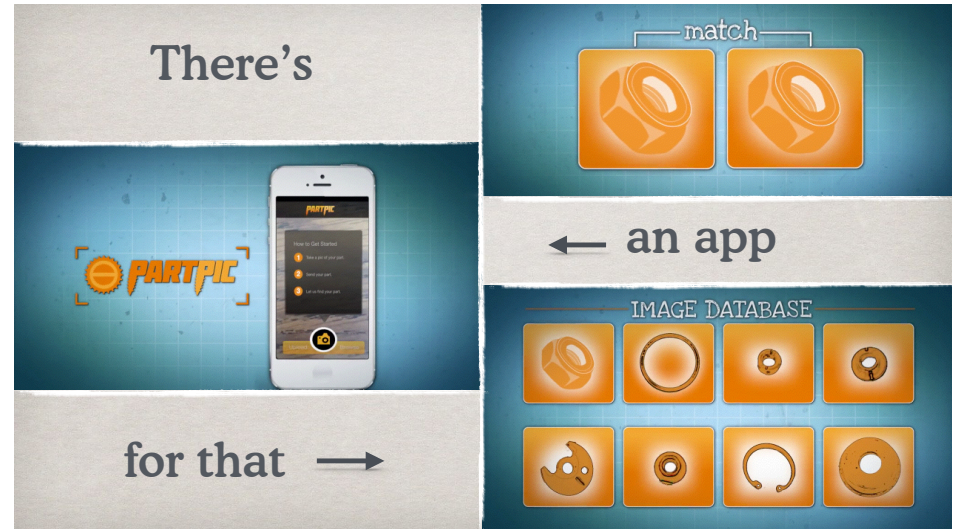
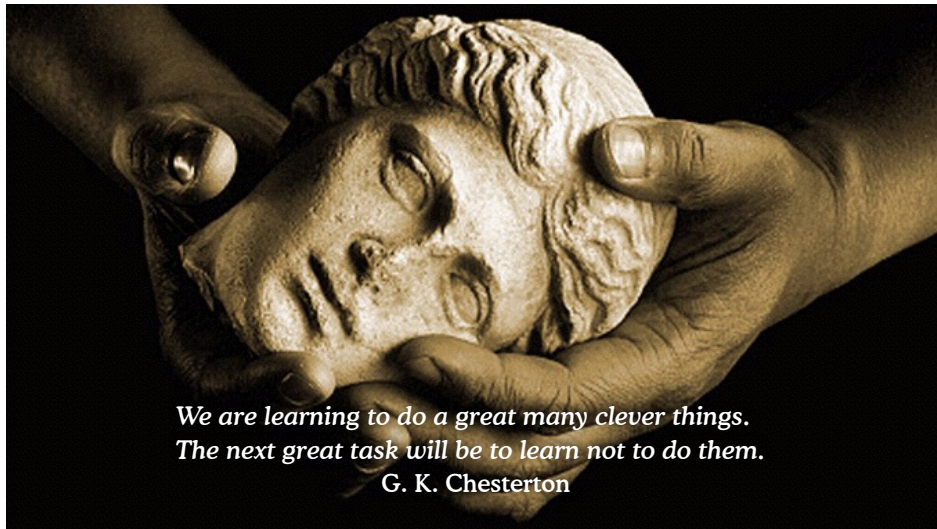
What no longer counts  
because we don't know  
how to count it?

STEM vs. PPPTHB.

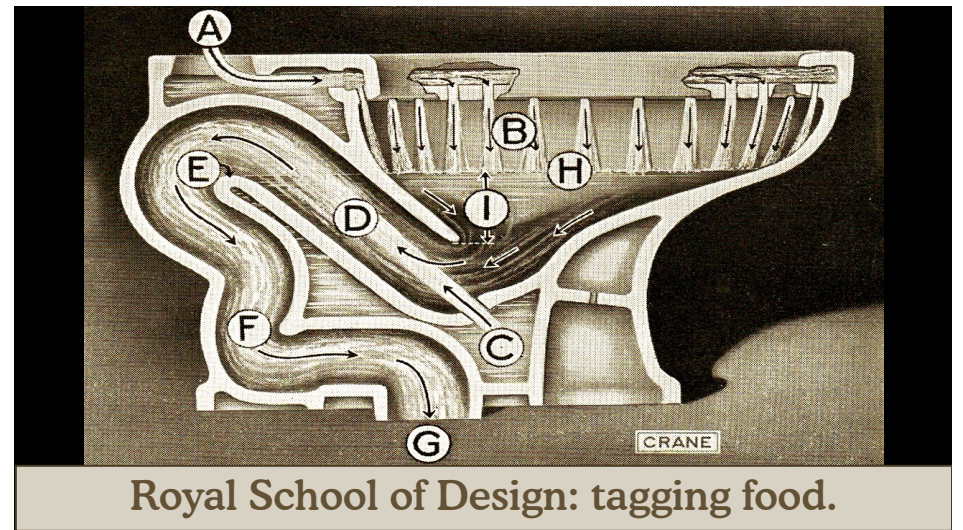
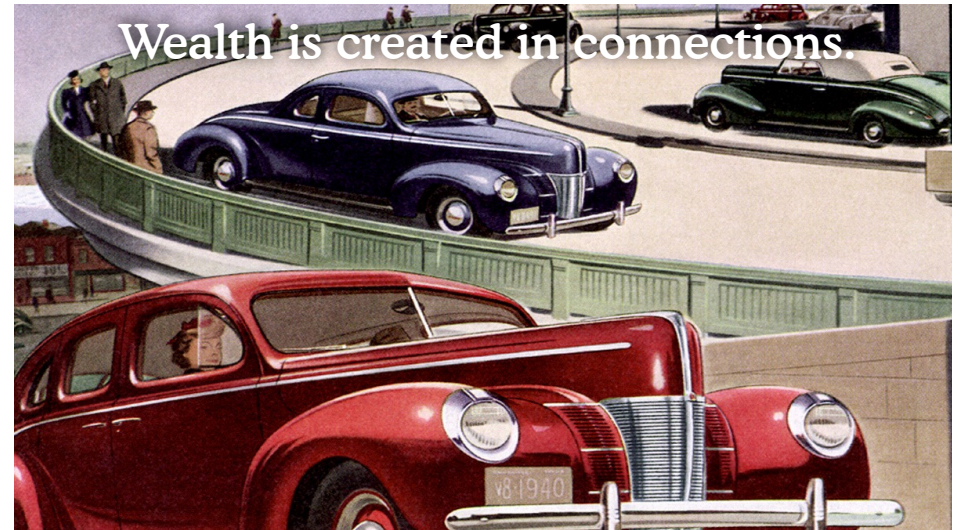
Protect your attention.



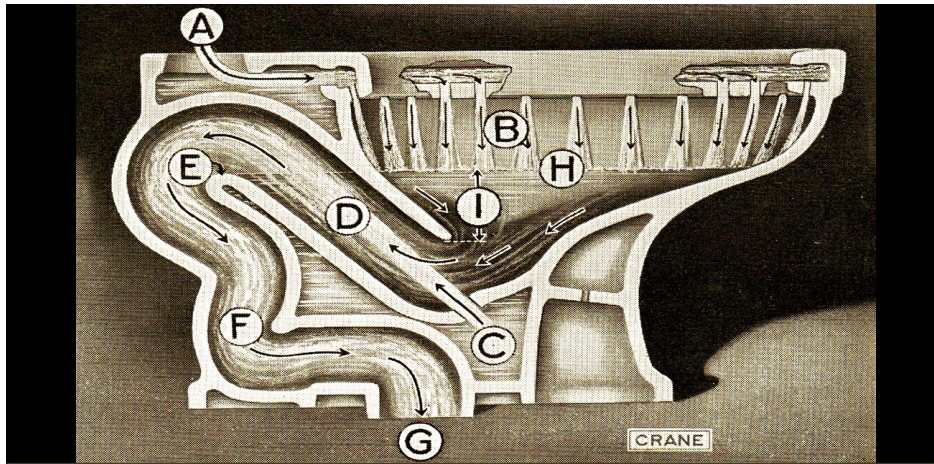




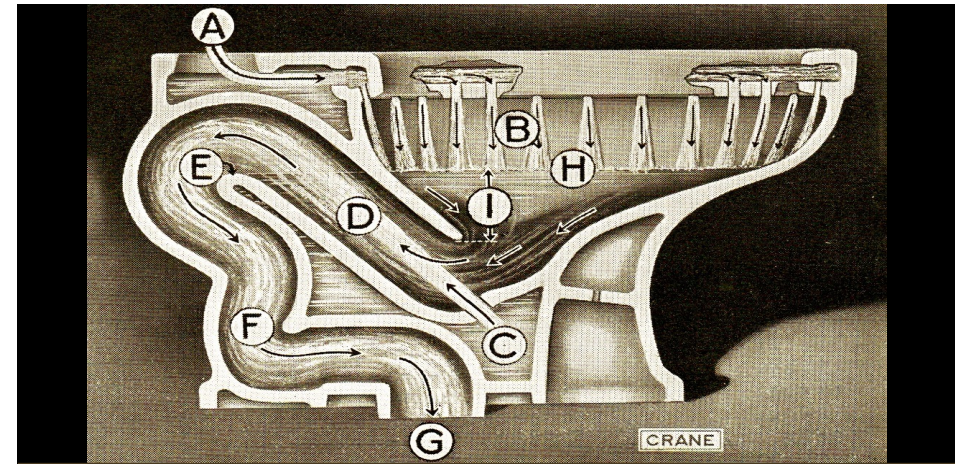




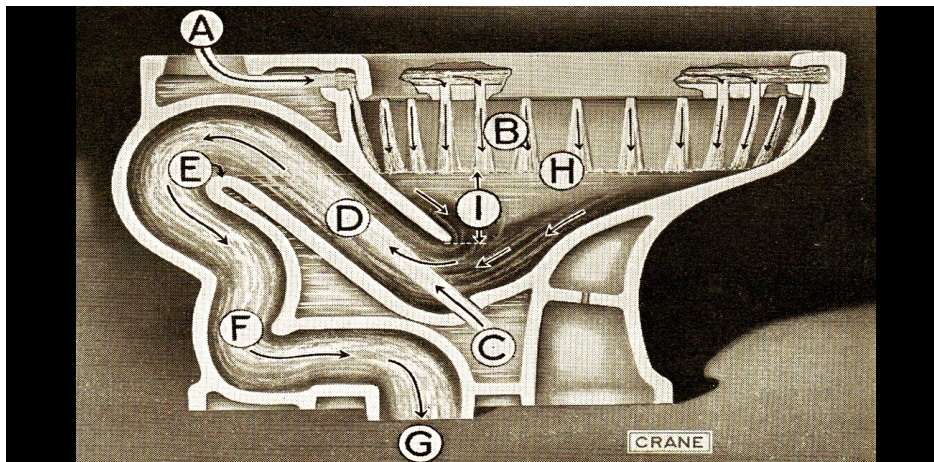




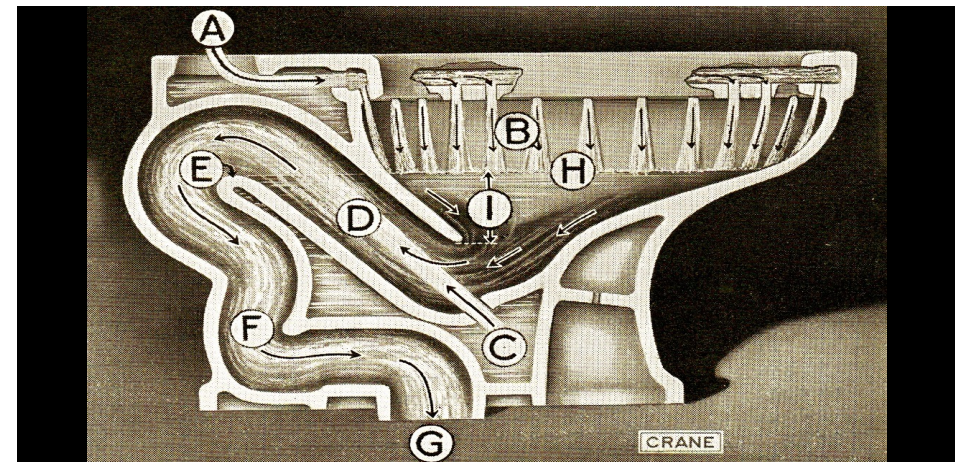
If you like your toilet, you can keep your toilet.



Is healthcare a right or an obligation?



Biometric apps & devices: who owns info?



Agriculture is data is healthcare is government?



Can  
algorithmys  
help make us  
healthier  
and safer?

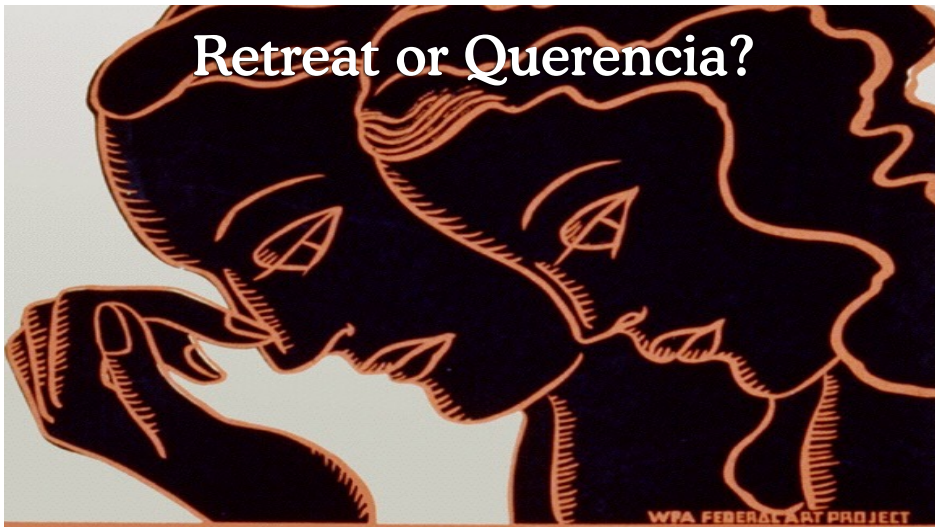


*The power to  
do good is also  
the power to  
do harm.*

Milton  
Friedman



## Retreat or Querencia?

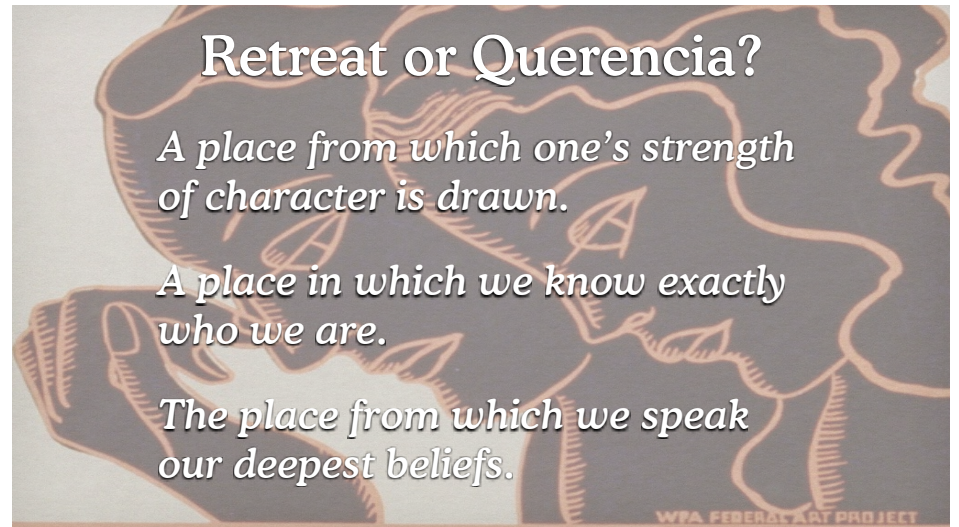


## Retreat or Querencia?

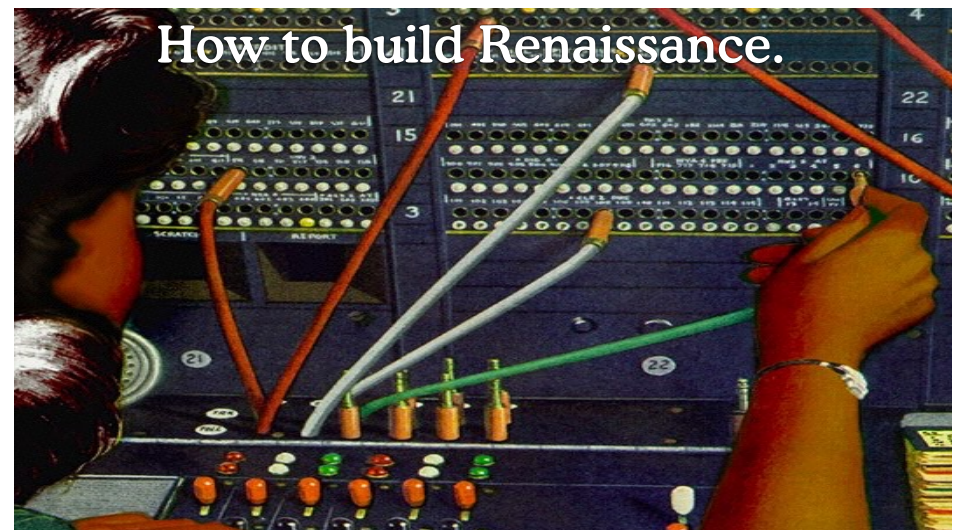
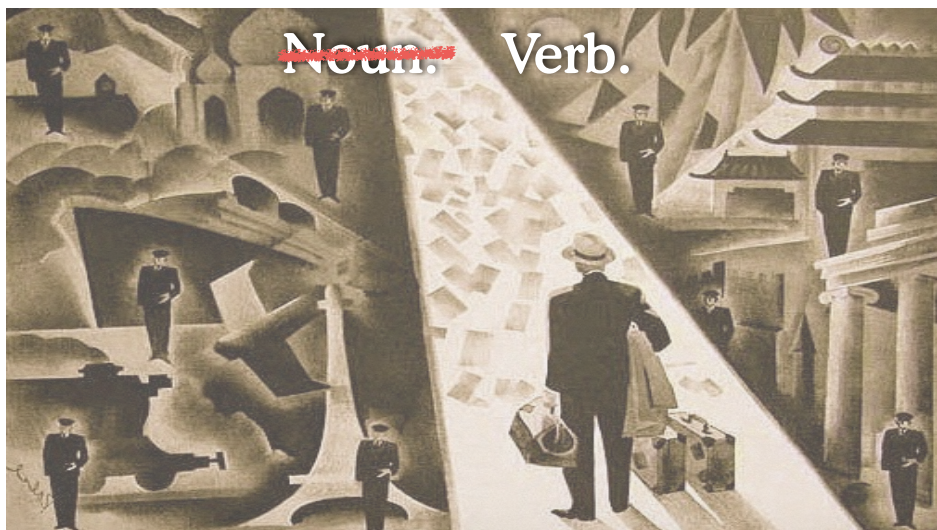
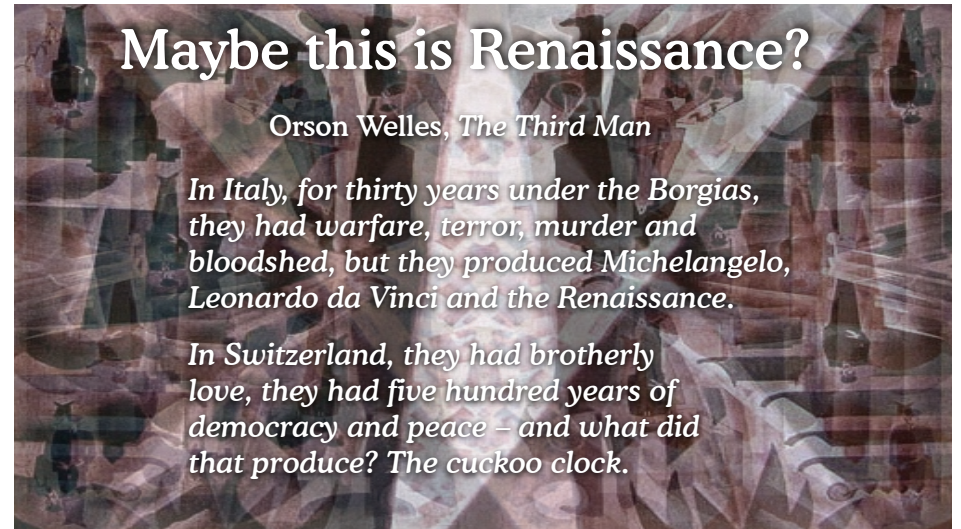
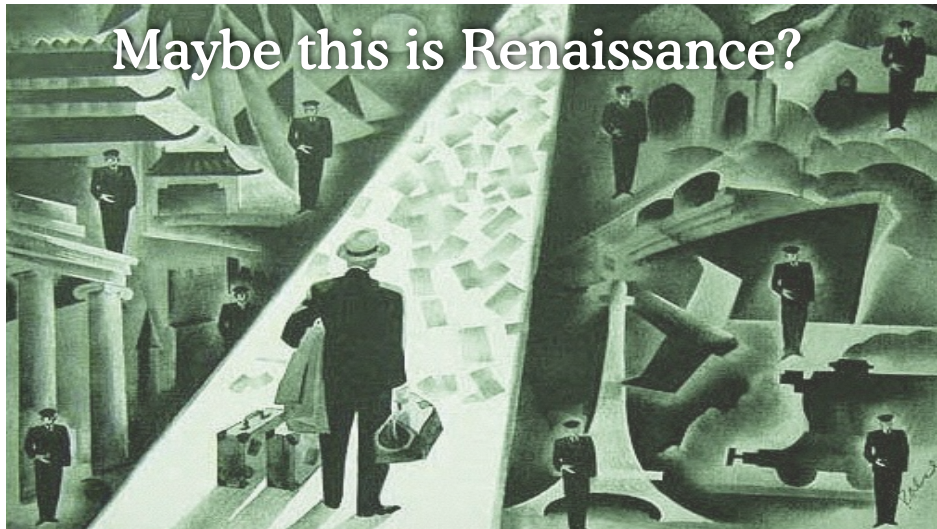
*A place from which one's strength  
of character is drawn.*

*A place in which we know exactly  
who we are.*

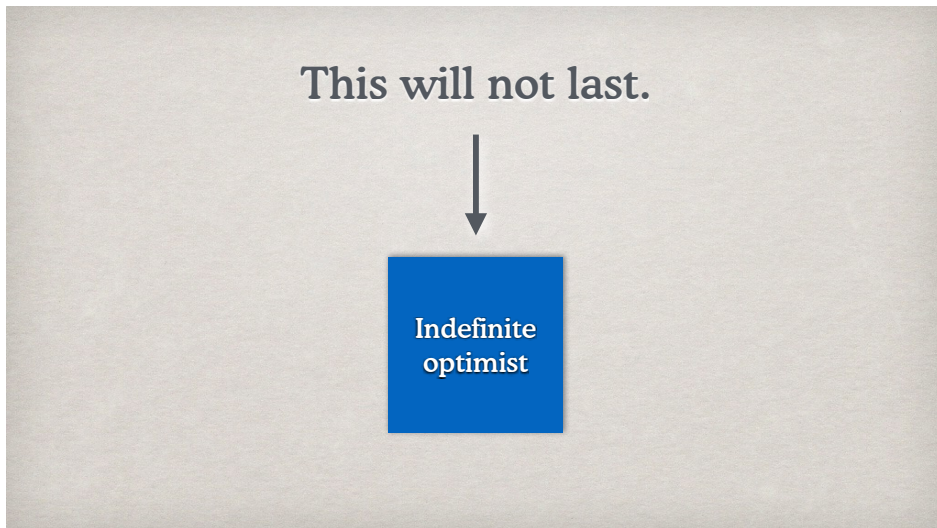
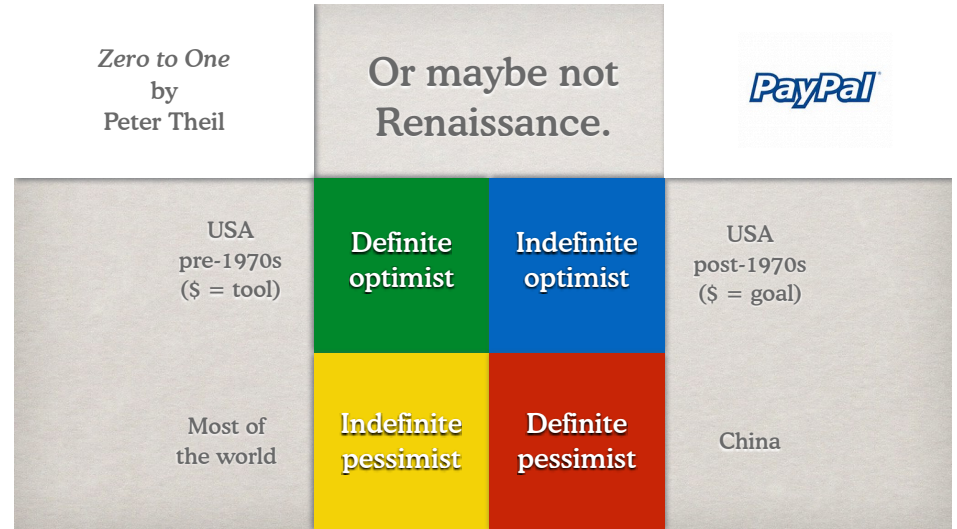
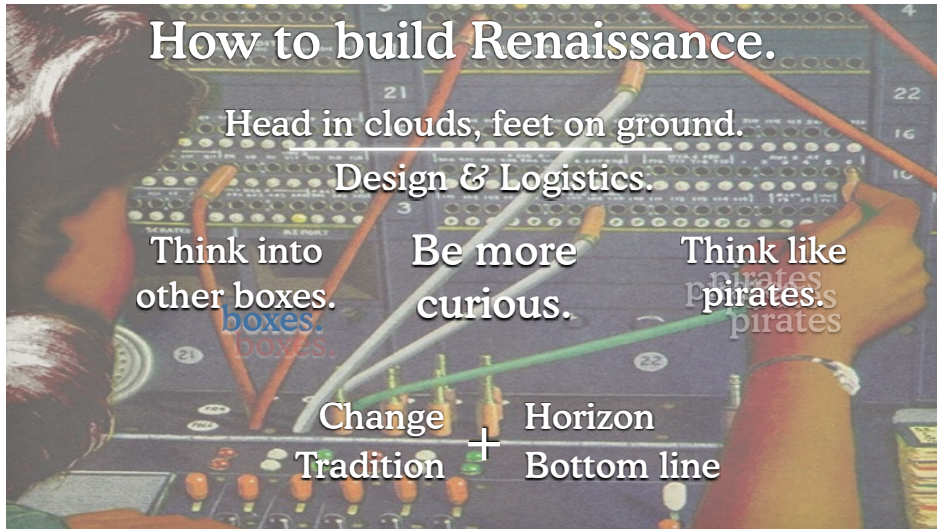
*The place from which we speak  
our deepest beliefs.*



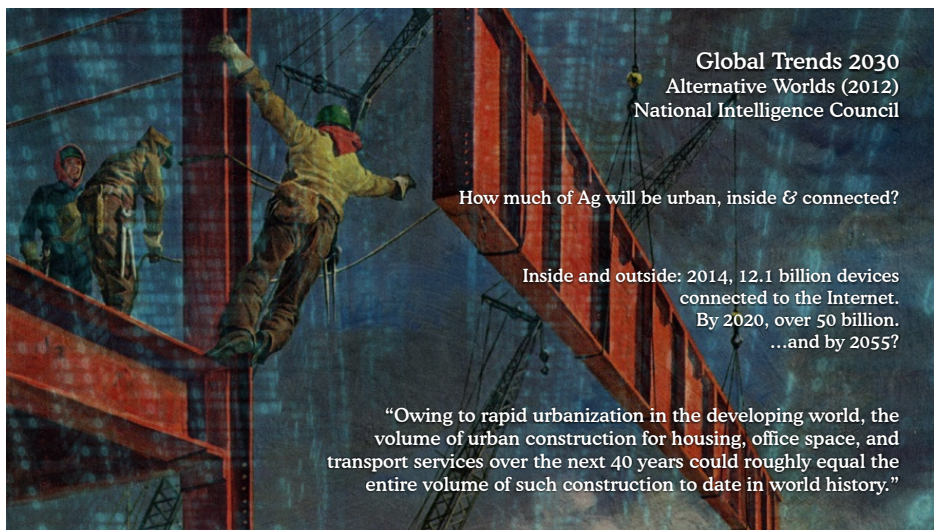
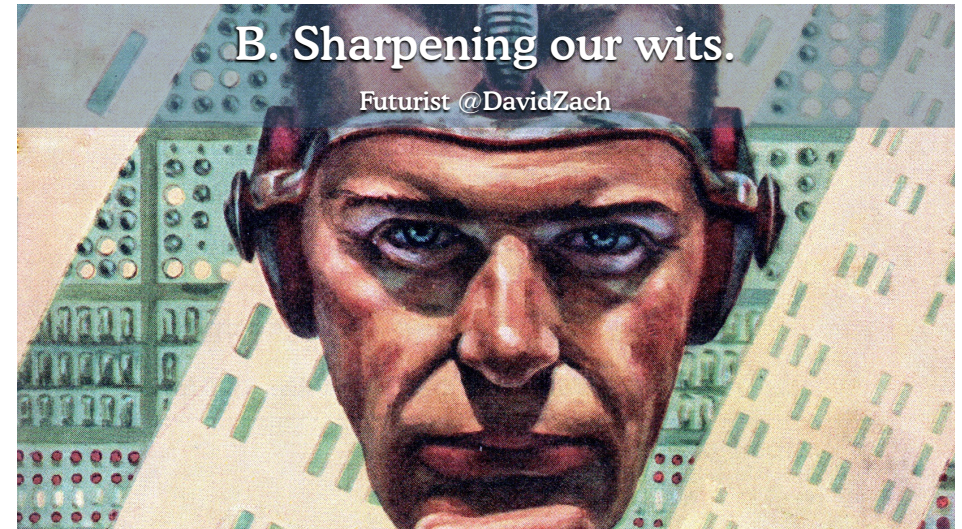
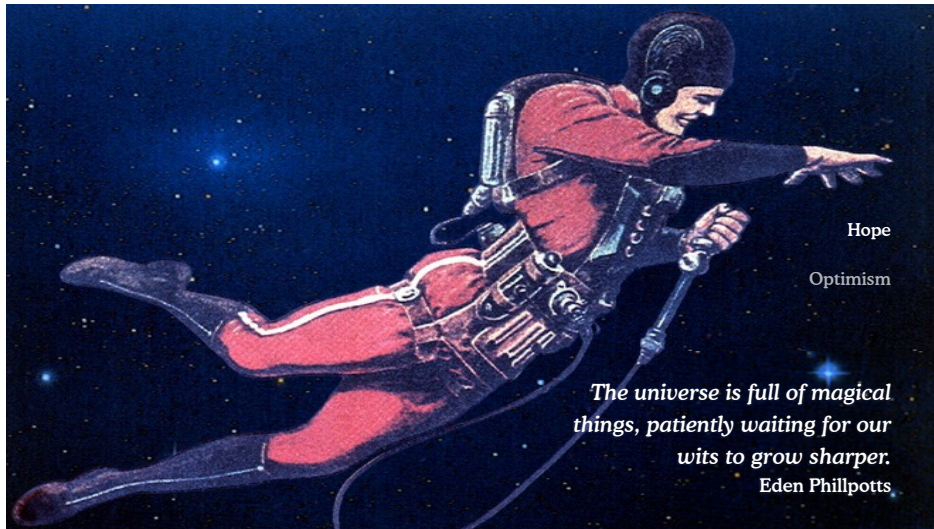




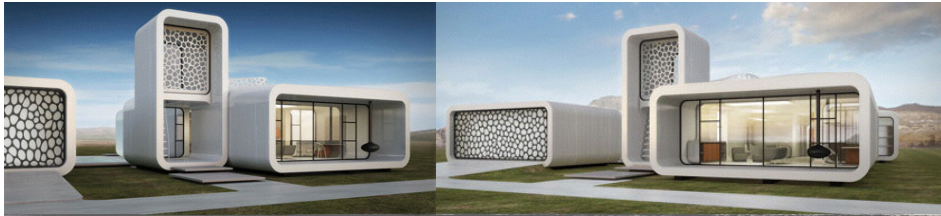




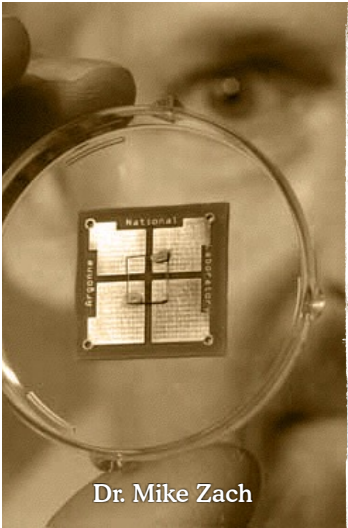








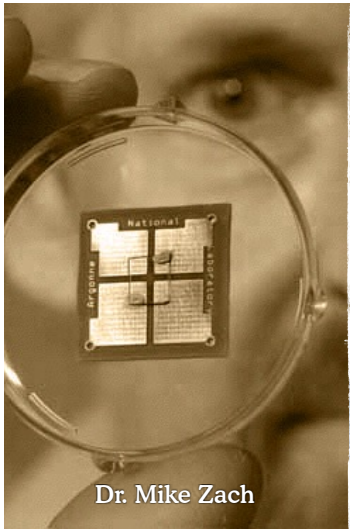
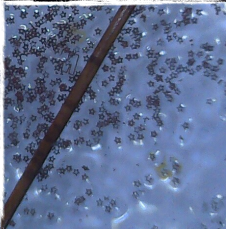
# Factories return to points of consumption?



Dr. Mike Zach

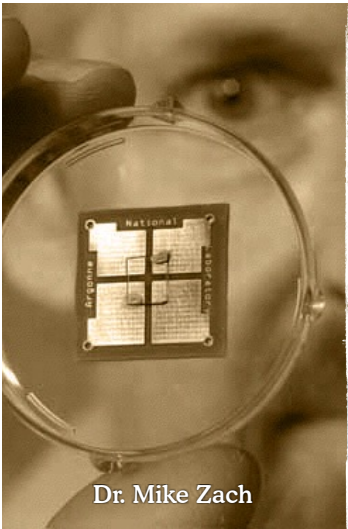
## The future of nanotechnology:

*They throw billions of dollars using brute force to make things nano. We do it by watching nature self-assemble structures and learn to coax individual atoms and ions.*



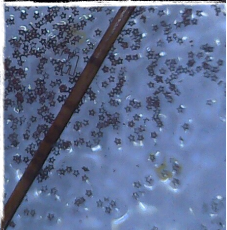
Dr. Mike Zach

*Nature doesn't have multi-million dollar fabrication facilities, yet it beats our engineers by 5 orders of magnitude in size and an infinite order of magnitude in cost for self-assembly in biology and materials science.*



Dr. Mike Zach

*To make nano cheaply, we only need to find conditions that nature wants to make things. Every biological cell is proof of that. Combine structural patterning elegance in biology with the material deposition finesse found in geological mineralization processes and we have most everything we need for a million times less energy.*





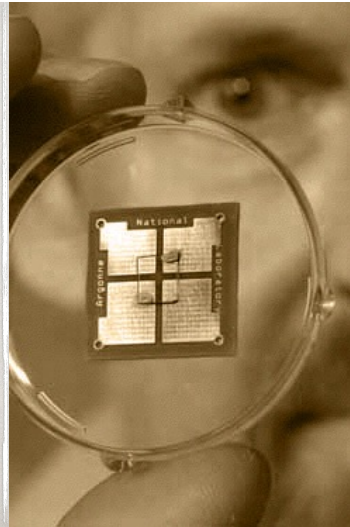
# The freedom to fail?

Four time college dropout.

Artist and scientist.

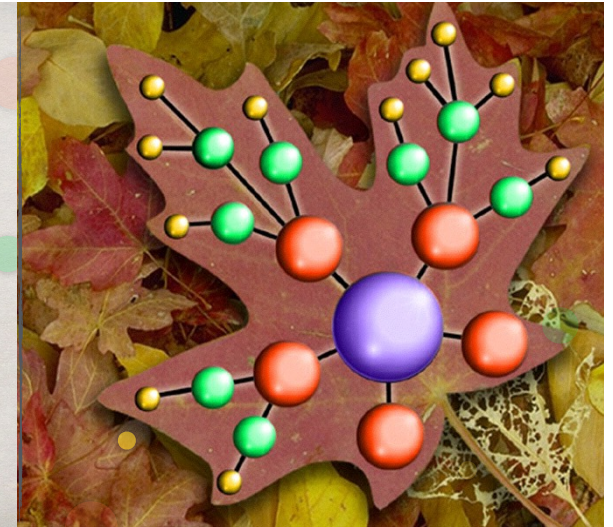
Curious.

Dr. Mike Zach, PhD



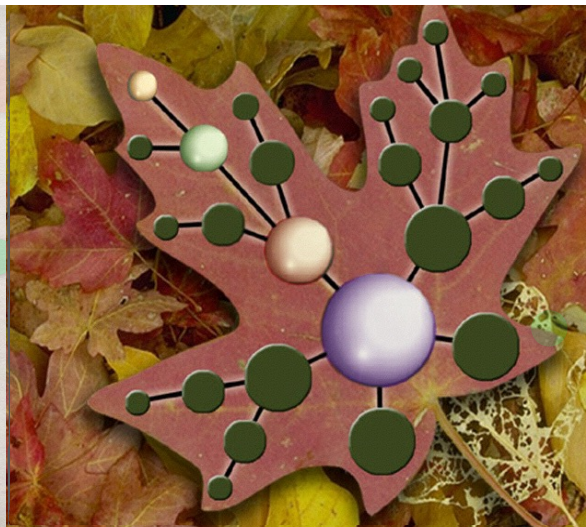
## Connecting curiosity.

*Creativity is just connecting things...  
A lot of people haven't had very diverse experiences, so they don't have enough dots to connect.*  
Steve Jobs



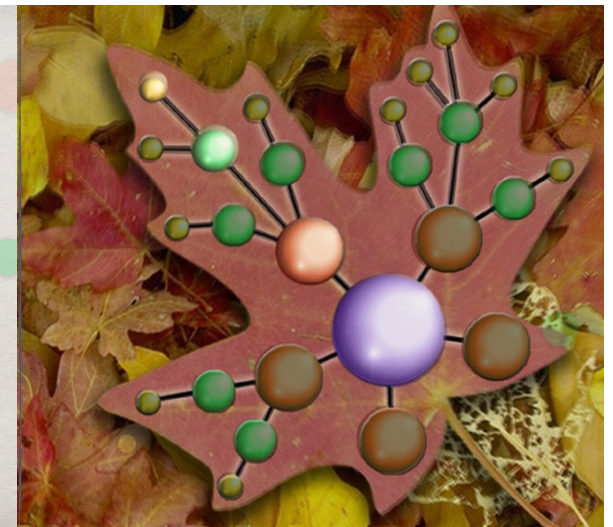
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Steve Jobs







**3D Factories**



**Logistics**

How will each of these connect to the others?



**Automation**



**Gov't Reach**



## All industries are emerging industries.

*Experiments don't always need to have immediate success. Does it bring together new things, new ideas and new people?*

**All materials continuously emerge.**

Billie Faircloth



*Why don't industries & organizations cross-collaborate any more?*

*Try to find innovation from other industries.*

**Why do we design the way we do?**


Jonathan Thayer



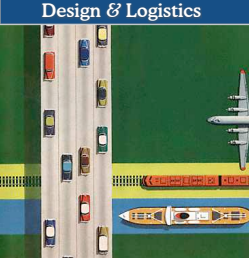
*Don't be afraid of low tech materials.*

Dwayne Oyler





**Design & Logistics**



Our answers have become isolated.

---

Diversive & epistemic curiosity.

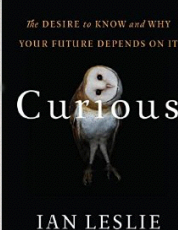
- Knowledge gives curiosity staying power.
- Questions weaponize curiosity.

---

How curious do you have to be in 2015 to thrive in 2025?

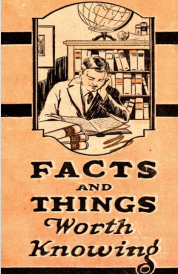
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Are there some things you can't be curious about?



**Curious**

IAN LESLIE

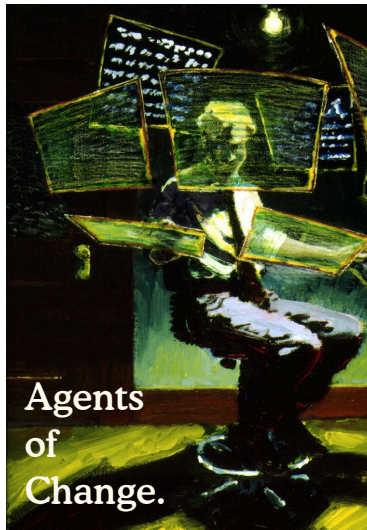


**FACTS AND THINGS Worth Knowing**

# Are you open to Change?



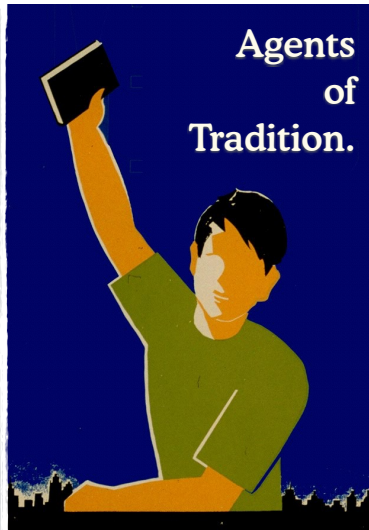




Agents  
of  
Change.

If  
everything  
can be  
changed...

If  
nothing  
lasts...



Agents  
of  
Tradition.



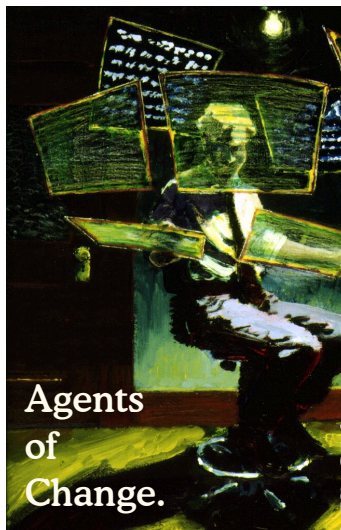
Agents  
of  
Change.



Agents  
of  
Seasons  
&  
Cycles?



Agents  
of  
Tradition.

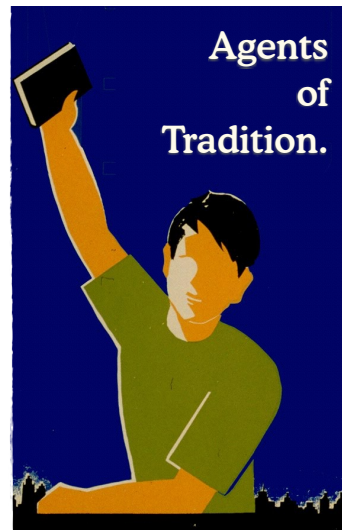


Agents  
of  
Change.

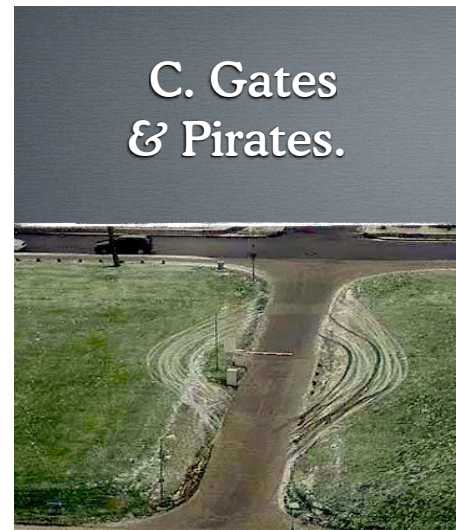
GK Chesterton:

*Before you tear  
down a gate or a  
fence, first go  
and learn why it  
was built in the  
first place.*

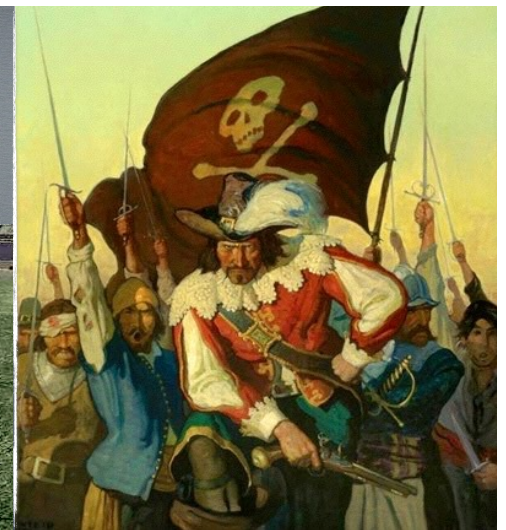
*If that reason  
no longer exists,  
then maybe we can  
tear the gate down.*



Agents  
of  
Tradition.



C. Gates  
& Pirates.





## Where's the next big InfoAg idea right now?

### a. Pirate: [Greek] *To put to the test.*

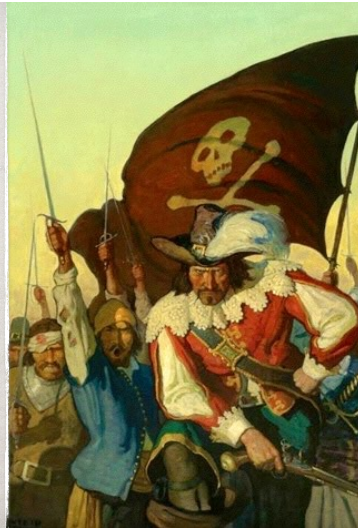
- *The Pirate Organization*, R Durand & JP Vergne
- What turns delinquents into successful innovators?

### b. Wealth = connections:

- Conveniently proximate: other doors.
- Curiously distant: other boxes.

### c. *Small ideas are as important as big ideas.*

ID Lt Gov Brad Little



## Innovating from small ideas.

Delusional



Denial



Democracy



Churchill



TioB



Reality 2.0



Reality

## How ~~risky~~ <sup>Piratey</sup> are you ?

Change is what others are supposed to do.



Deprivation



Unsafe "now"  
Luck?  
Risk education?

Convention



Safety repeat.  
Affluenza  
Hunger + talent?

Invention



\$afety \$oon  
Adolence  
Expense of entry?

Reinvention



Future safety?  
Failure?  
Keep or lose past?

Piration



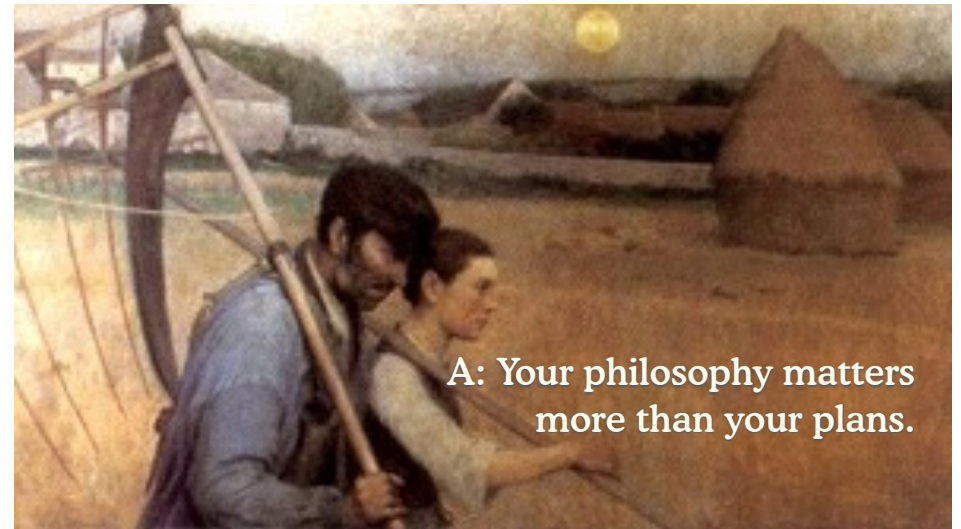
Safety?  
WWRN?  
PayPal in HS!







Q: What will you change,  
what will you keep?



A: Your philosophy matters  
more than your plans.



1. What problem is this tech trying to solve?
2. Is that my problem?
3. By solving this problem, what new problems am I creating?
4. Am I using the tech or is it using me?



Q: Concierge  
management?

EXPERIENCE • ATTENTION • ATTITUDE



Q: What are children seeing?

Nothing can wait.  
Nothing can last.  
Nothing can satisfy.

Nothing is hidden.  
Nothing is forbidden.  
Nothing is certain.

No one can be unhappy.  
No one can be judged.  
No one can be trusted.

Everyone will be connected.  
Everyone will be famous.  
Everyone will be followed.

Everything is a need.  
Everything is a choice.  
Everything is possible.

Q: Is everything possible?

*We are becoming like gods, ...*  
Steward Brand

Another word for  
predictable?

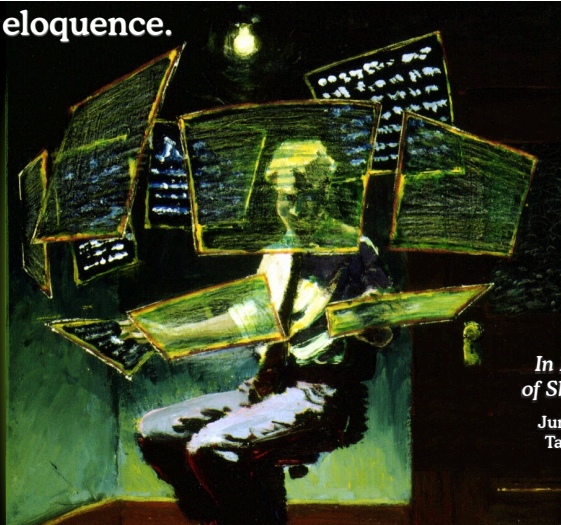
*Replacement tech & art.*  
Marshall McLuhan



A: Elegance & eloquence.

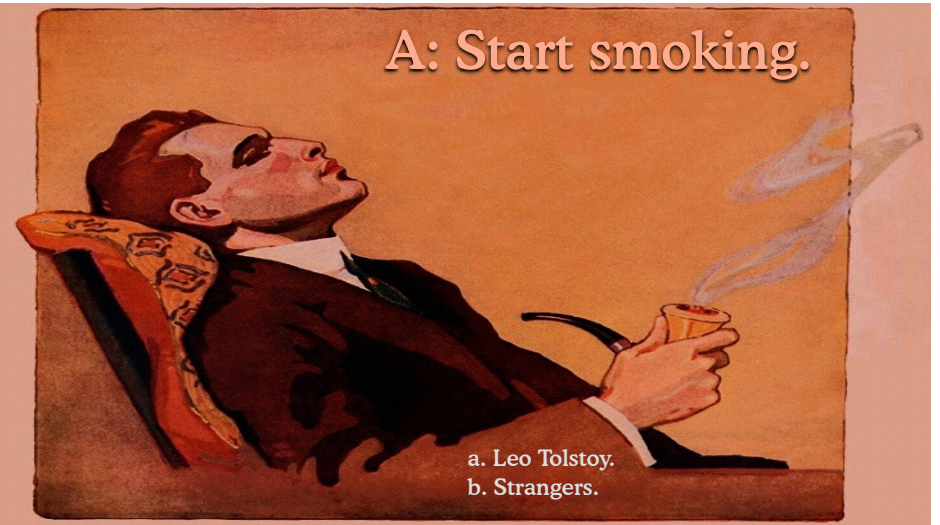
*Were it not  
for shadows,  
there would  
be no beauty.*

Information  
Architecture  
to design  
data  
interfaces.



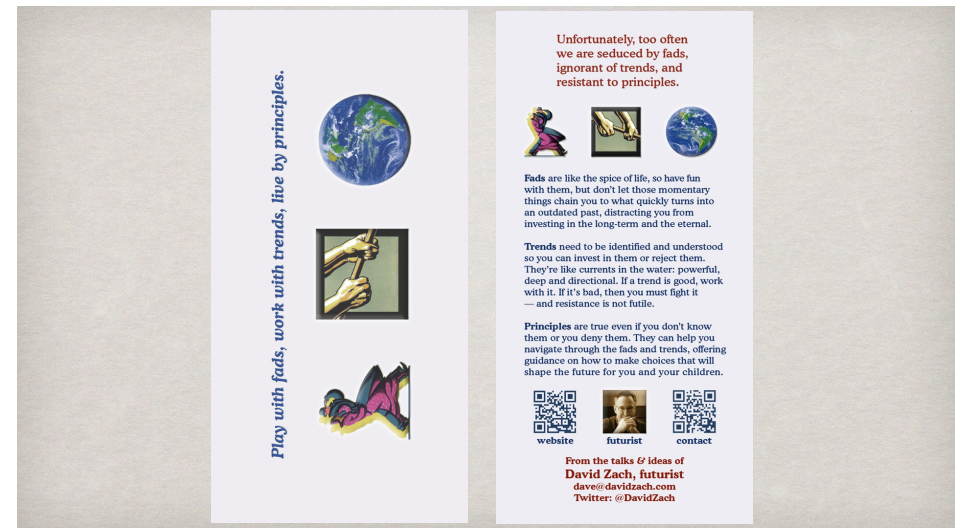
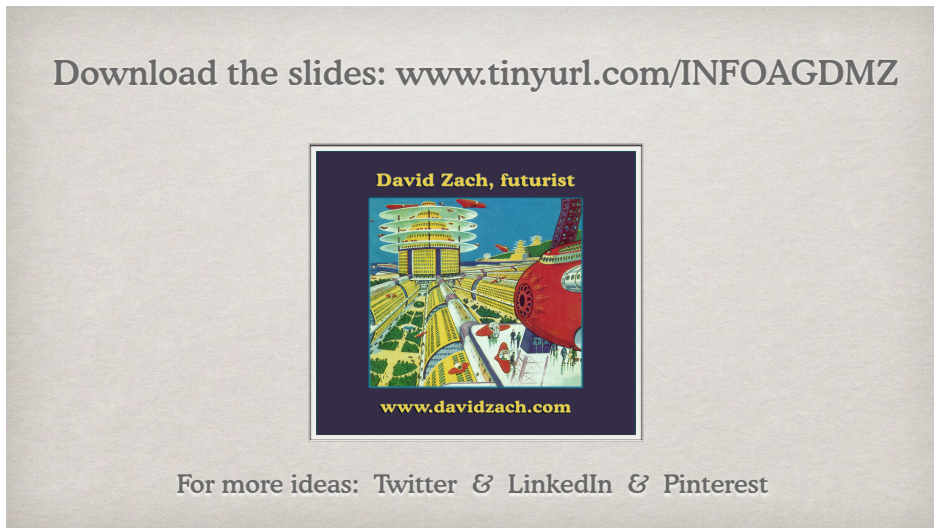
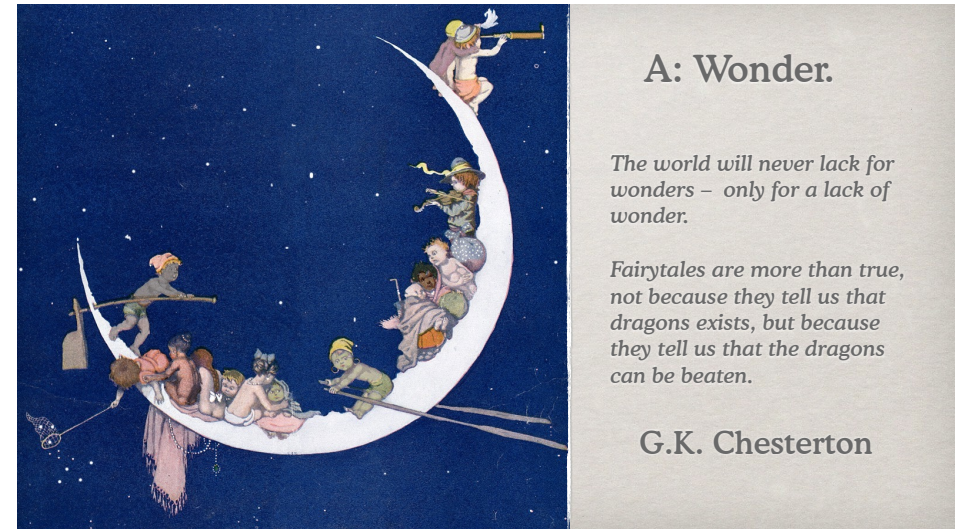
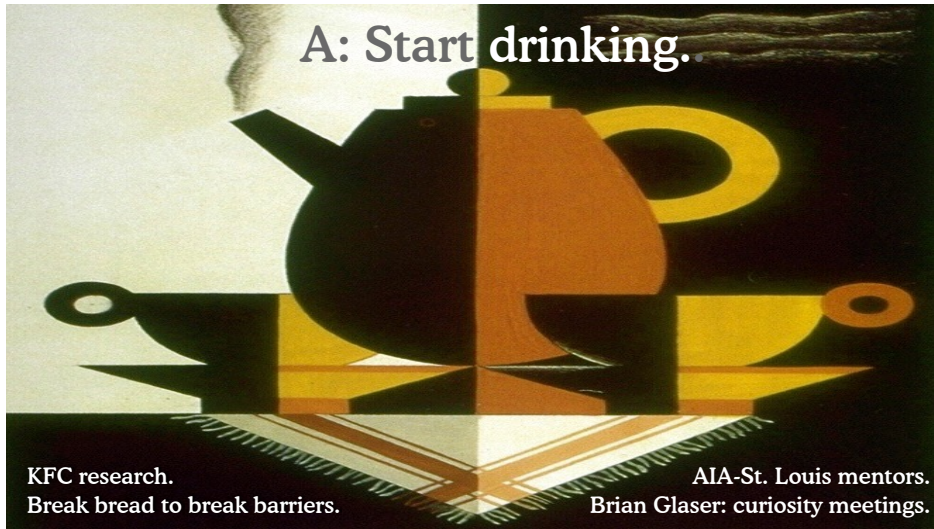
*In Praise  
of Shadows*  
Jun'ichiro  
Tanizaki

A: Start smoking.



a. Leo Tolstoy.  
b. Strangers.







# Worth Remembering



Get the  
Kindle edition  
at [amazon.com](http://amazon.com)  
for only 99¢

David Zach, futurist

## Worth Remembering — the future value of old ideas

This is a book about looking back before we look forward. There's value in looking back to find the lessons of history, to rediscover old ideas that stand the test of time. This book presents old ideas that can help us understand and explore the new ones.

To look backward for a while is to refresh the eye, to restore it, and to render it more fit for its prime function of looking forward.  
*Margaret Fairless Barber*

Men invent new ideals because they dare not attempt old ideals. They look forward with enthusiasm, because they are afraid to look back.  
*G. K. Chesterton*

To be prepared against surprise is to be trained. To be prepared for surprise is to be educated.  
*James P. Carse*

History is a vast early-warning system.  
*Norman Cousins*

If the very old will remember, the very young will listen.  
*Chief Dan George*

Maybe we're about to radically change the operating system of the human condition. If so, then this would be a really good time to make backups of our civilization.  
*Bruce Sterling*

Beware of false prophets, which come to you in sheep's clothing, but inwardly they are ravening wolves.  
*Matthew 7:15*

The universe is full of magical things patiently waiting for our wits to grow sharper.  
*Eden Phillpotts*



David Zach is a futurist who loves history, studies trends, questions fads, believes in principles and gives thoughtful, entertaining talks on these themes to audiences around the world. To learn more, visit [www.davidzach.com](http://www.davidzach.com)

Worth Remembering is now available for the Kindle at [amazon.com](http://amazon.com) – only 99¢

