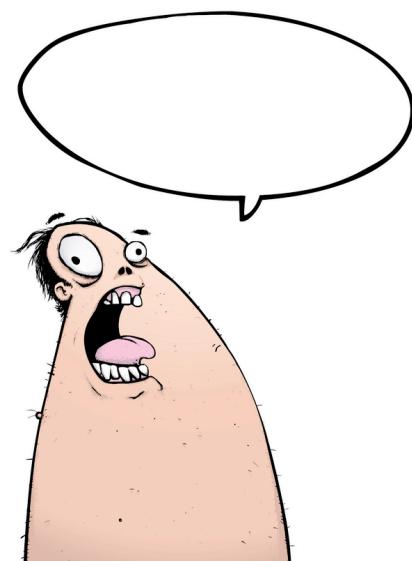


# communication skills for geeks



**NEAL FORD** software architect / meme wrangler

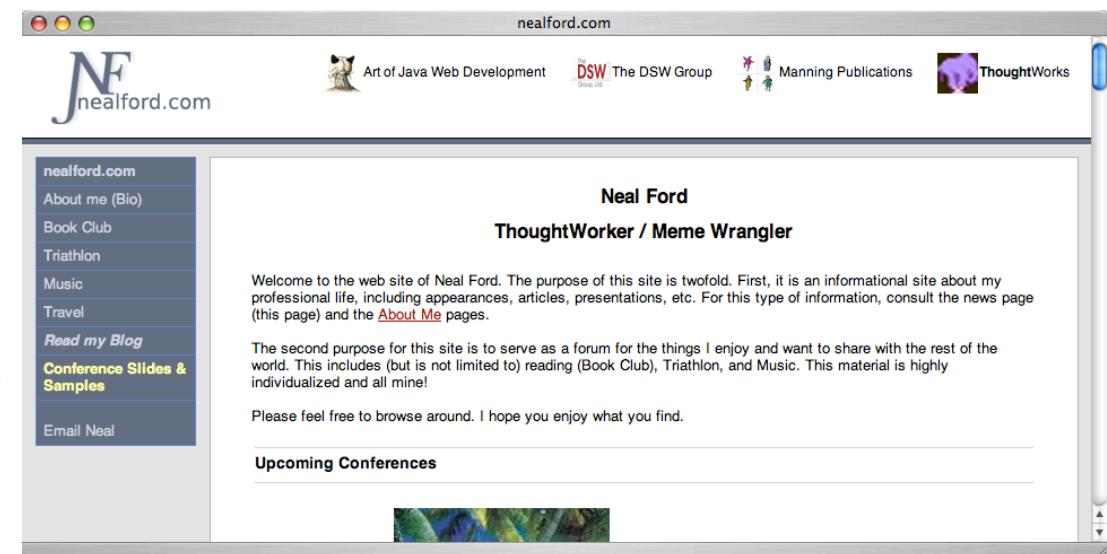
**ThoughtWorks**

**nford@thoughtworks.com**  
**3003 Summit Boulevard, Atlanta, GA 30319**  
[www.nealford.com](http://www.nealford.com)  
[www.thoughtworks.com](http://www.thoughtworks.com)  
blog: [memeagora.blogspot.com](http://memeagora.blogspot.com)  
twitter: [neal4d](https://twitter.com/neal4d)

# housekeeping

ask questions anytime

download slides from  
nealford.com



The screenshot shows a Mac OS X window for the website [nealford.com](http://nealford.com). The window title bar says "nealford.com". The main content area features a large photo of Neal Ford. Above the photo, his name "Neal Ford" and title "ThoughtWorker / Meme Wrangler" are displayed. Below the photo, there's a welcome message and sections for "Upcoming Conferences" and "Email Neal". On the left, a sidebar menu lists: nealford.com, About me (Bio), Book Club, Triathlon, Music, Travel, Read my Blog, Conference Slides & Samples, and Email Neal. At the top of the page, there are links to other sites: Art of Java Web Development, DSW The DSW Group, Manning Publications, and ThoughtWorks.

download samples from [github.com/nealford](https://github.com/nealford)

# what i cover

prelude: things to consider

writing

documentation

presentations

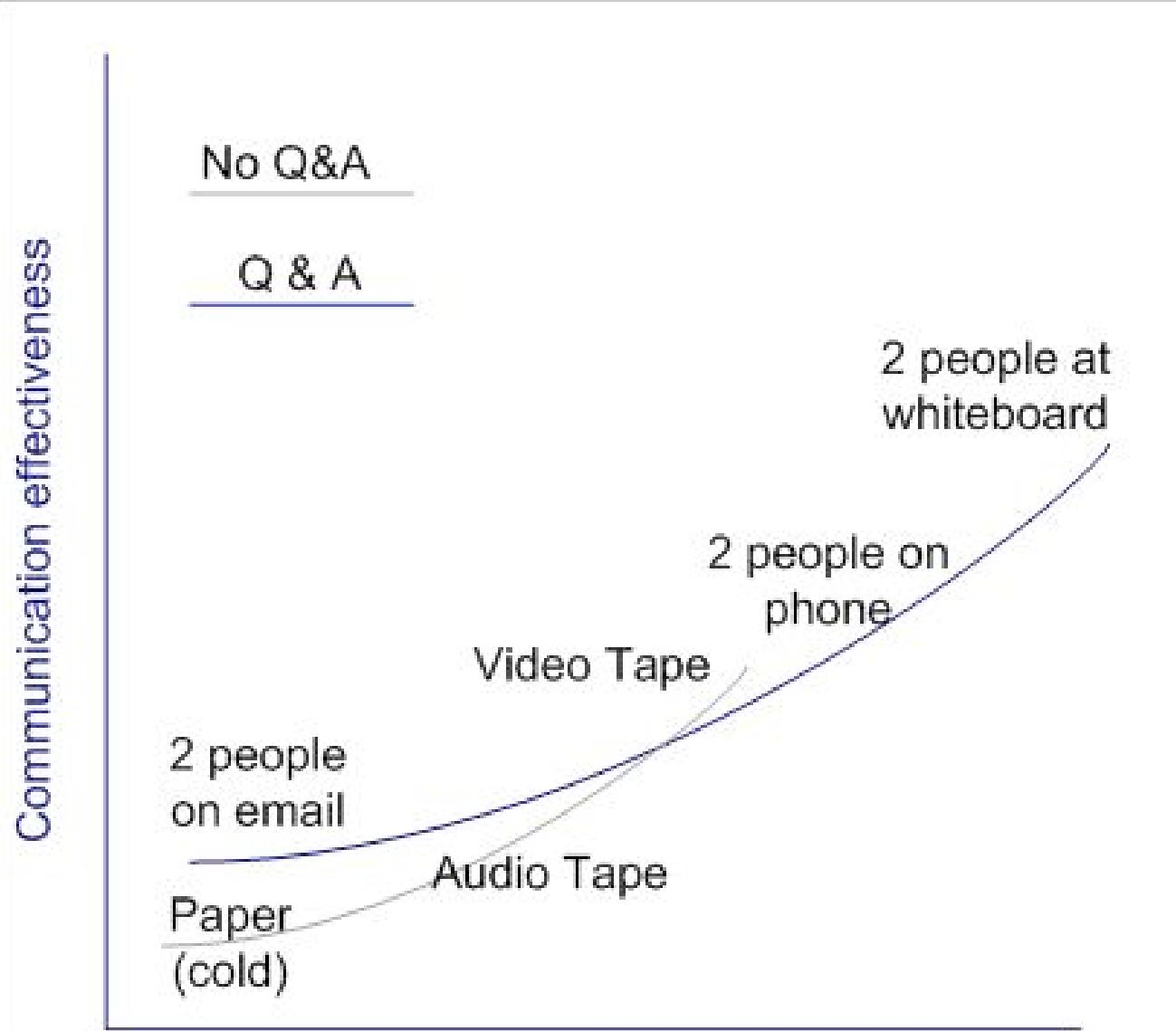
interoffice communication

prelude



software is  
more about  
communication  
than about  
technology





Richness ("temperature") of communications channel

From *Agile Software Development*,  
Cockburn 2002

# dreyfus model of skill acquisition

5 stages of learning from external instruction

gradual transition from rigid adherence to recipes to an intuitive mode of reasoning

“hero’s journey”

# I. novice

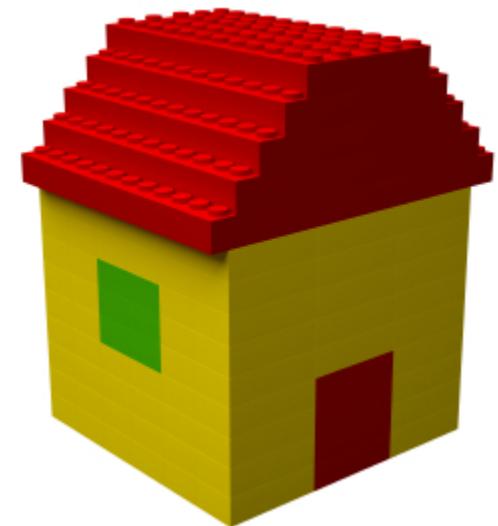
rigid adherence to rules

no discretionary judgement

recipes

no deep understanding

won't understand nuanced discussions



# 2. advanced beginner

situation perception still limited

all aspects of work are treated separately and given equal importance

limited improvisation

recipes + a few ingredients



# 3. competent

now partially sees action as part of longer term goals

conscious, deliberate planning

information density

coping with crowdedness

multiple activities



# 4. proficient

holistic view of situation, rather than in terms of aspects

sees what is most important in a situation

uses maxims for guidance

meaning of maxims may vary according to situation



# 5. expert

no longer reliance on rules, guidelines, maxims

intuitive grasp of situation, based on tacit knowledge

vision of what is possible

“just does it”

unteachable



# understand your audience

nuanced communication confuses novices

don't assume what you care about matters to  
someone else

nurture inexperienced members

don't get frustrated!



writing

# passive voice

one of the most common mistakes in writing

*Passive voice occurs when you make the object of an action into the subject of a sentence.*

*Why was the road crossed by the chicken?*

form of "to be" + past participle = passive voice

# passive voice myths

1. Use of the passive voice constitutes a grammatical error.
2. Any use of "to be" (in any form) constitutes the passive voice.
3. The passive voice always avoids the first person.
4. You should never use the passive voice.
5. I can rely on my grammar checker to catch the passive voice.

# examples

The metropolis has been scorched by the dragon's fiery breath.

The dragon scorched the metropolis with his fiery breath.

When her house was invaded, Penelope had to think of ways to delay her remarriage.

After suitors invaded her house, Penelope had to think of ways to delay her remarriage.

# examples

Heart disease is considered the leading cause of death in the United States.

Research points to heart disease as the leading cause of death in the United States.

Researchers have concluded that heart disease is the leading cause of death in the United States.

The balloon is positioned in an area of blockage and is inflated.

The surgeon positions the balloon in an area of blockage and inflates it.

# "swindles and perversions"

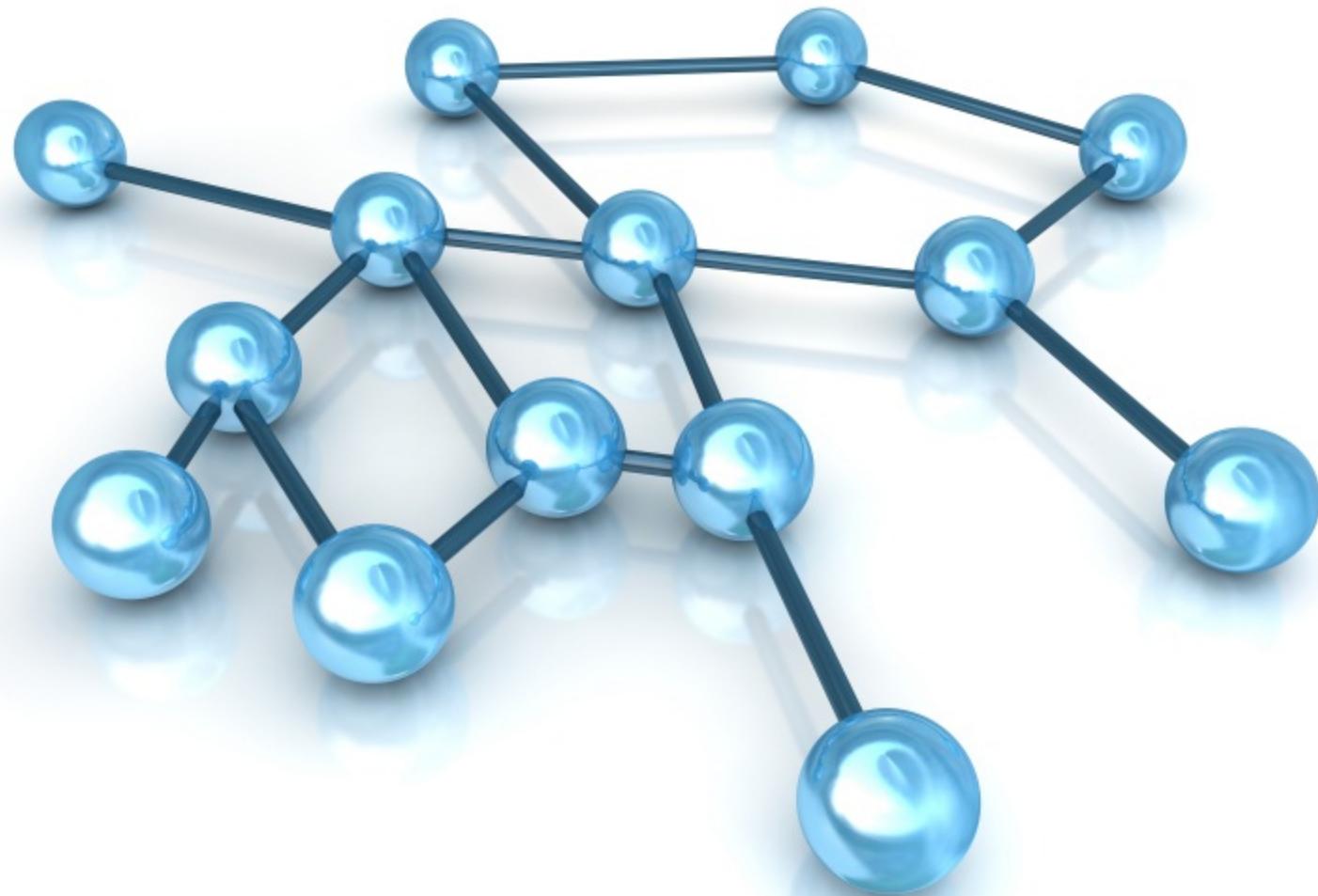
*Mistakes were made.*

*The Exxon Company accepts that a few gallons might have been spilled.*

use of language shapes clarity and meaning

some people use the passive voice to avoid mentioning responsibility for certain actions

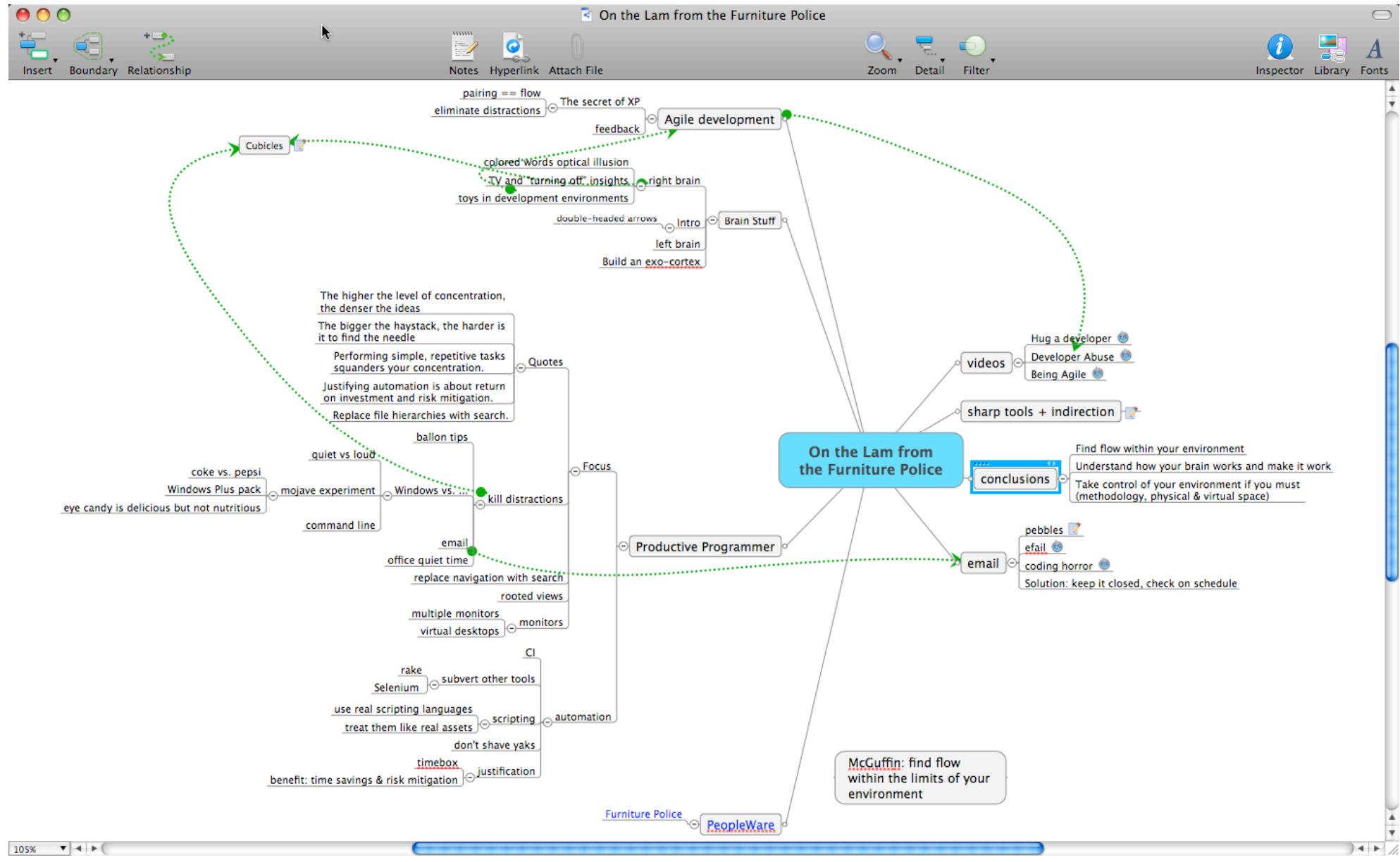
# organize before you write

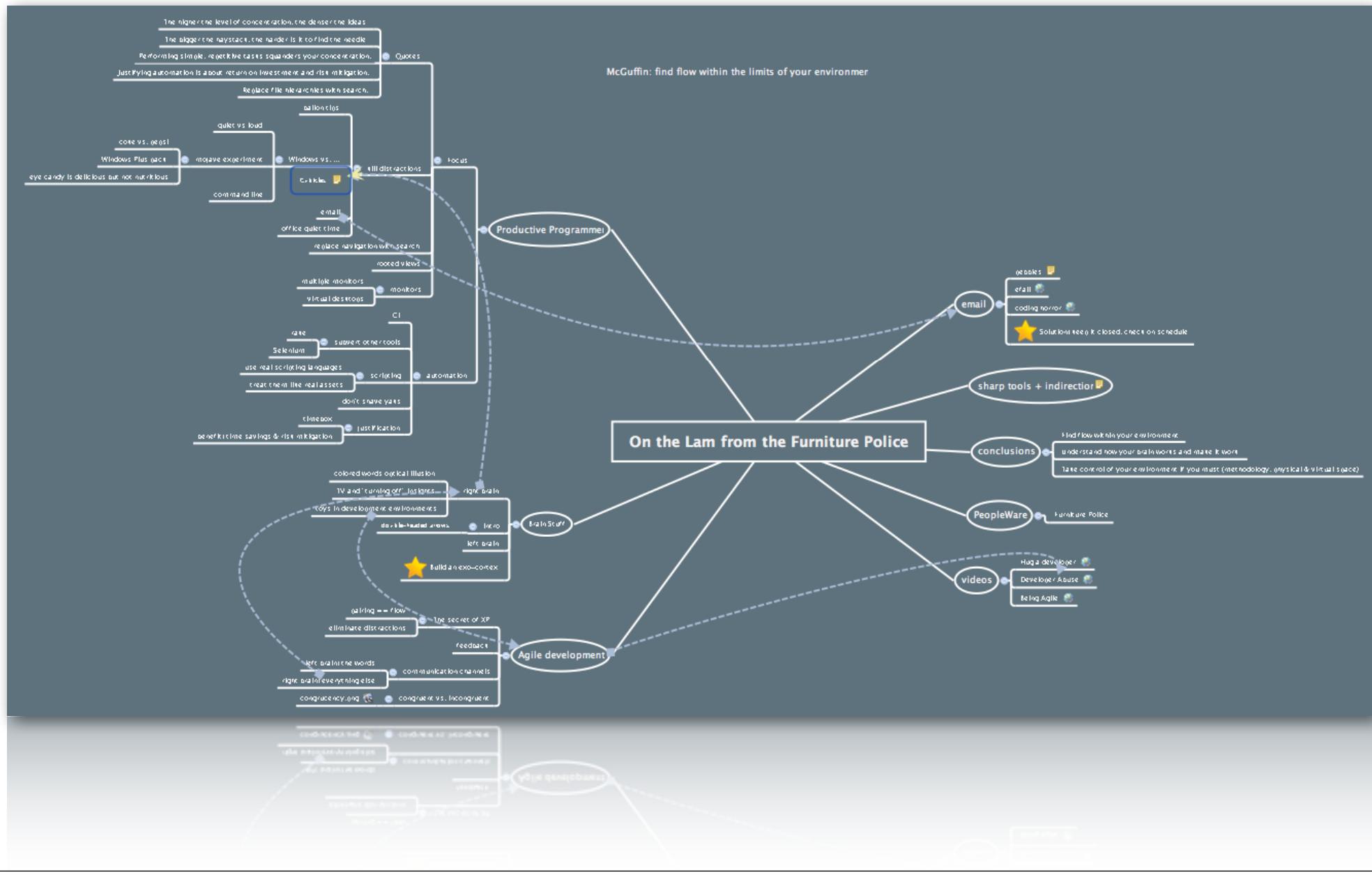


Utilities Action Add Column Attach Inspect

Topic

- ▼ □ Act I: Background
  - ▼ □ Peopleware
    - □ definition of furniture police
    - □ why do they care about this?
    - □ knowledge workers
    - □ our brains are different
  - ▼ □ (digression) How our brains work
    - ▼ □ Wetware
      - □ left brain/right brain
    - ▼ □ left brain
      - □ linear thought
      - □ chatter of consciousness
    - ▼ □ right brain
      - ▼ □ pattern matching
        - □ introduction to pattern matching
        - □ (digression) pattern matching in art (Jordon pix)
        - □ color words optical illusion
      - □ deep insights & how to enable them
      - □ but...
    - □ how we work and learn
    - □ iBrain stuff
  - ▼ □ The mind, day to day
    - ▼ □ left brain vs. right brain
      - □ left brain: writing code
      - □ right brain: finding patterns & insights
    - □ pair programming
- ▼ □ Act II: Tools
  - ▼ □ Productive Programmer
    - ▼ □ focus
    - ▼ □ kill computer distractions



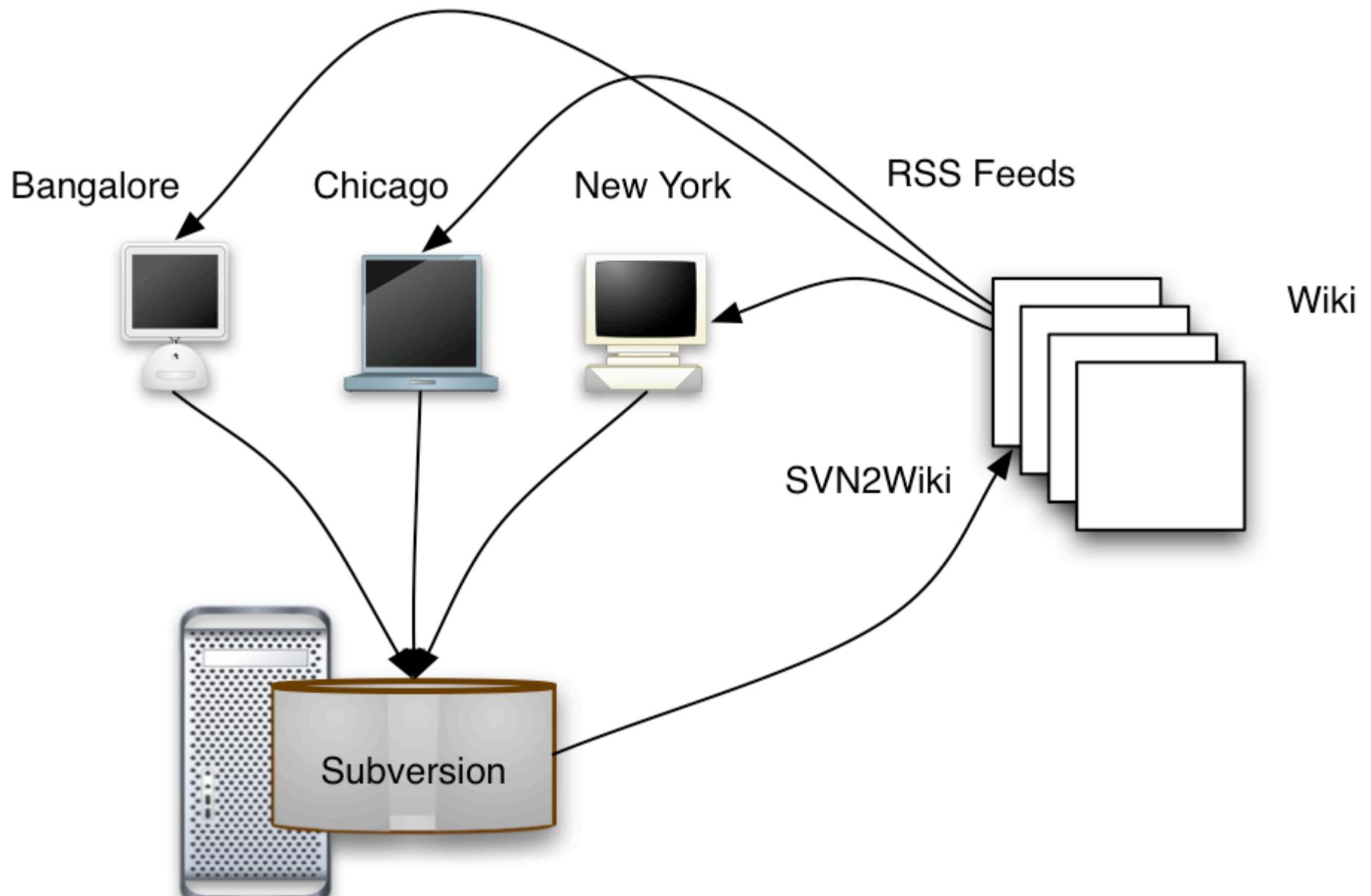


# personal brain



A photograph of a man with dark hair, wearing glasses, a light blue cardigan over a white shirt, and a black bow tie. He is sitting at a desk, looking intensely at an open book with a surprised or shocked expression. Behind him is a wall with a red and gold patterned wallpaper. There are stacks of books on both sides of him. The word "documentation" is overlaid in large, bold, black letters.

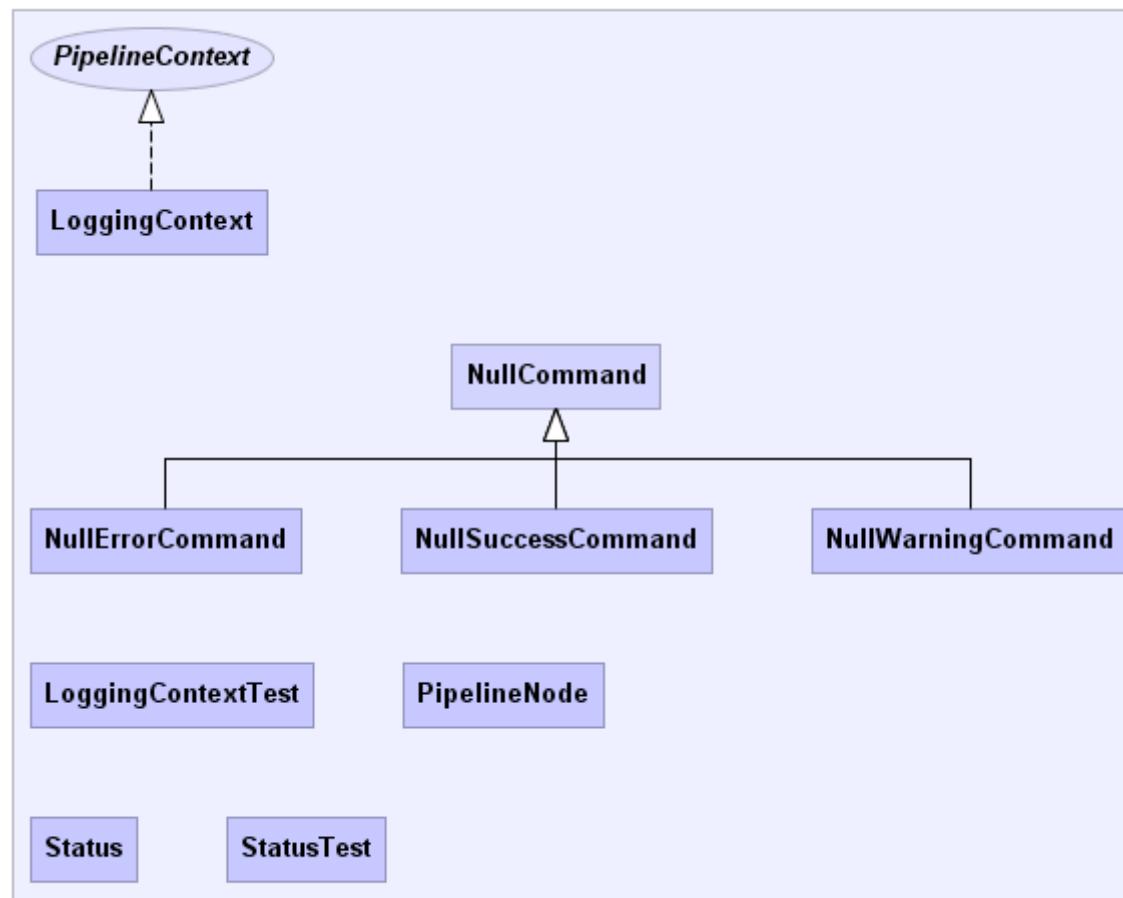
documentation



Chicago

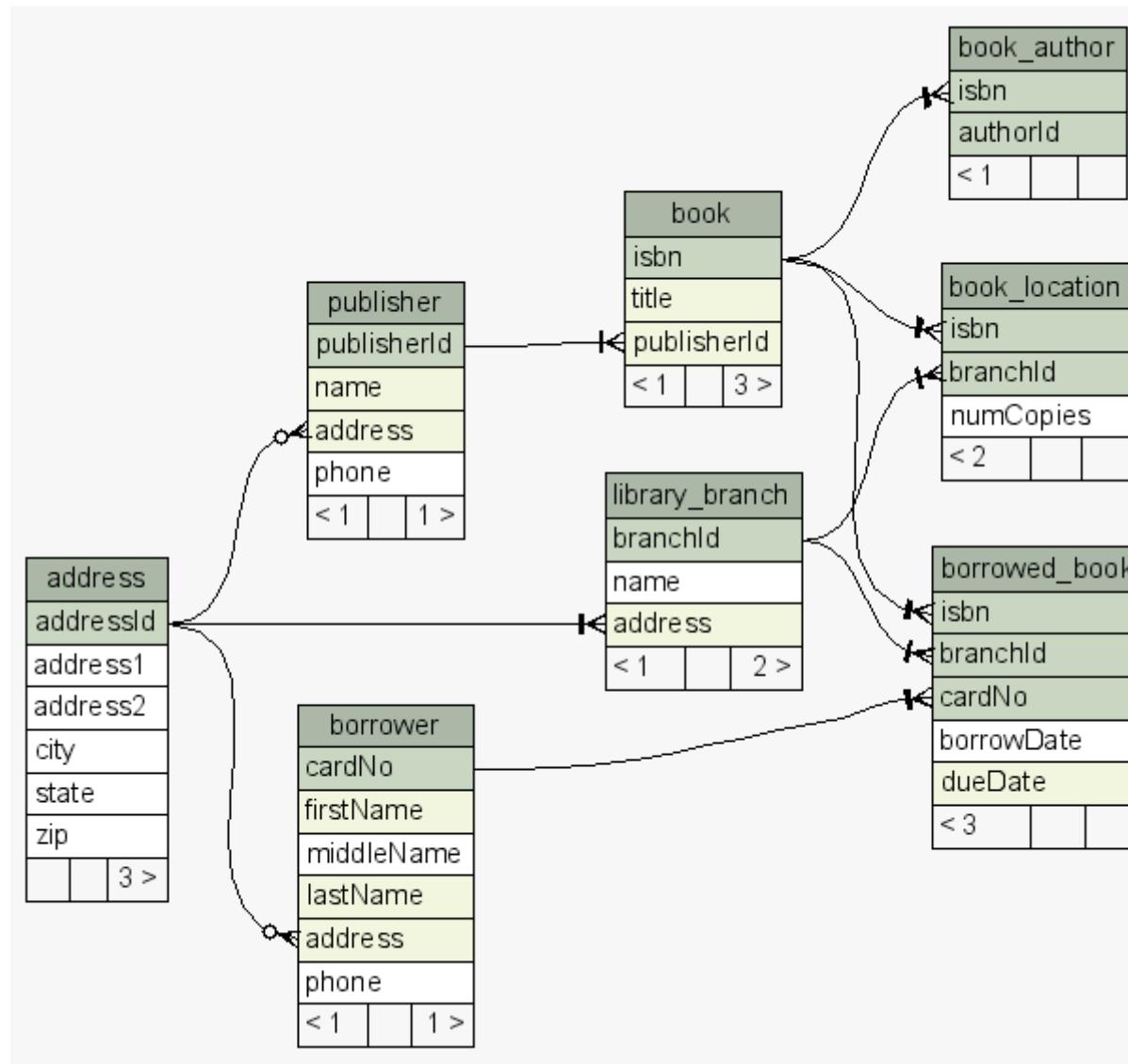
# dry documentation

# dry diagrams



Generated by yDoc Evaluation Version

# dry schemas



# design tools

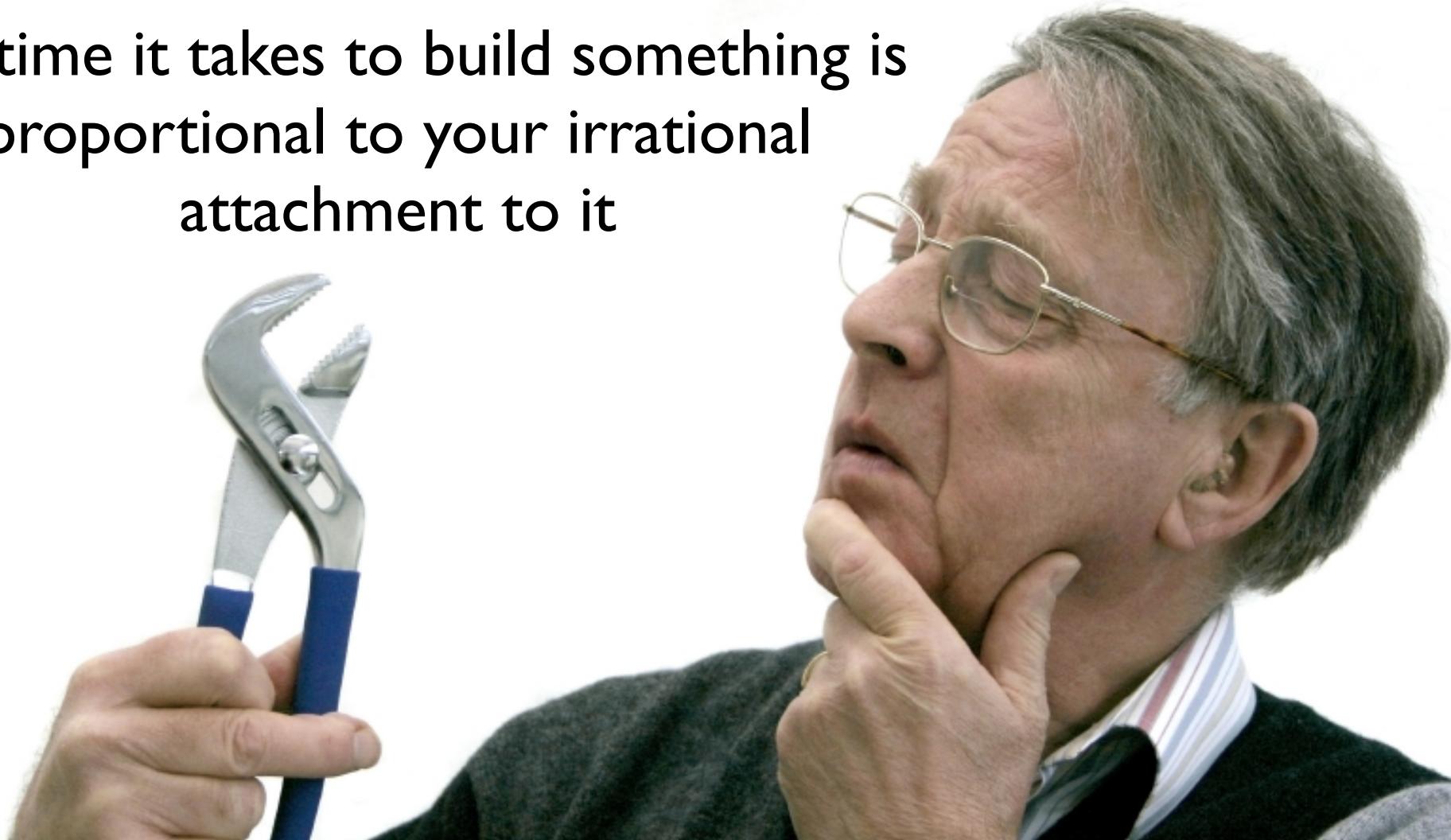


+



# irrational artifact attachment

the time it takes to build something is  
proportional to your irrational  
attachment to it



A photograph of a man with dark hair, wearing black-rimmed glasses, a light blue V-neck sweater over a white collared shirt, and a dark green bow tie. He has a beard and mustache and is making a wide-eyed, open-mouthed expression of surprise or excitement. The background is a patterned curtain with a repeating floral or mandorla motif in shades of pink and cream.

**presentations**

# Gettysburg Address

Four score and seven years ago our fathers brought forth on this continent, a new nation, conceived in Liberty, and dedicated to the proposition that all men are created equal.

Now we are engaged in a great civil war, testing whether that nation, or any nation so conceived and so dedicated, can long endure. We are met on a great battle-field of that war. We have come to dedicate a portion of that field, as a final resting place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this.

But, in a larger sense, we can not dedicate -- we can not consecrate -- we can not hallow -- this ground. The brave men, living and dead, who struggled here, have consecrated it, far above our poor power to add or detract. The world will little note, nor long remember what we say here, but it can never forget what they did here. It is for us the living, rather, to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us -- that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion -- that we here highly resolve that these dead shall not have died in vain -- that this nation, under God, shall have a new birth of freedom -- and that government of the people, by the people, for the people, shall not perish from the earth.

# Gettysburg Cemetery Dedication

Abraham Lincoln

11/19/1863

# Agenda

- Met on battlefield (great)
- Dedicate portion of field - fitting!
- Unfinished work (great tasks)

11/19/1863

# Not on Agenda!

- Dedicate
- Consecrate
- Hallow  
(in narrow sense)
- Add or detract
- Note or remember what we say

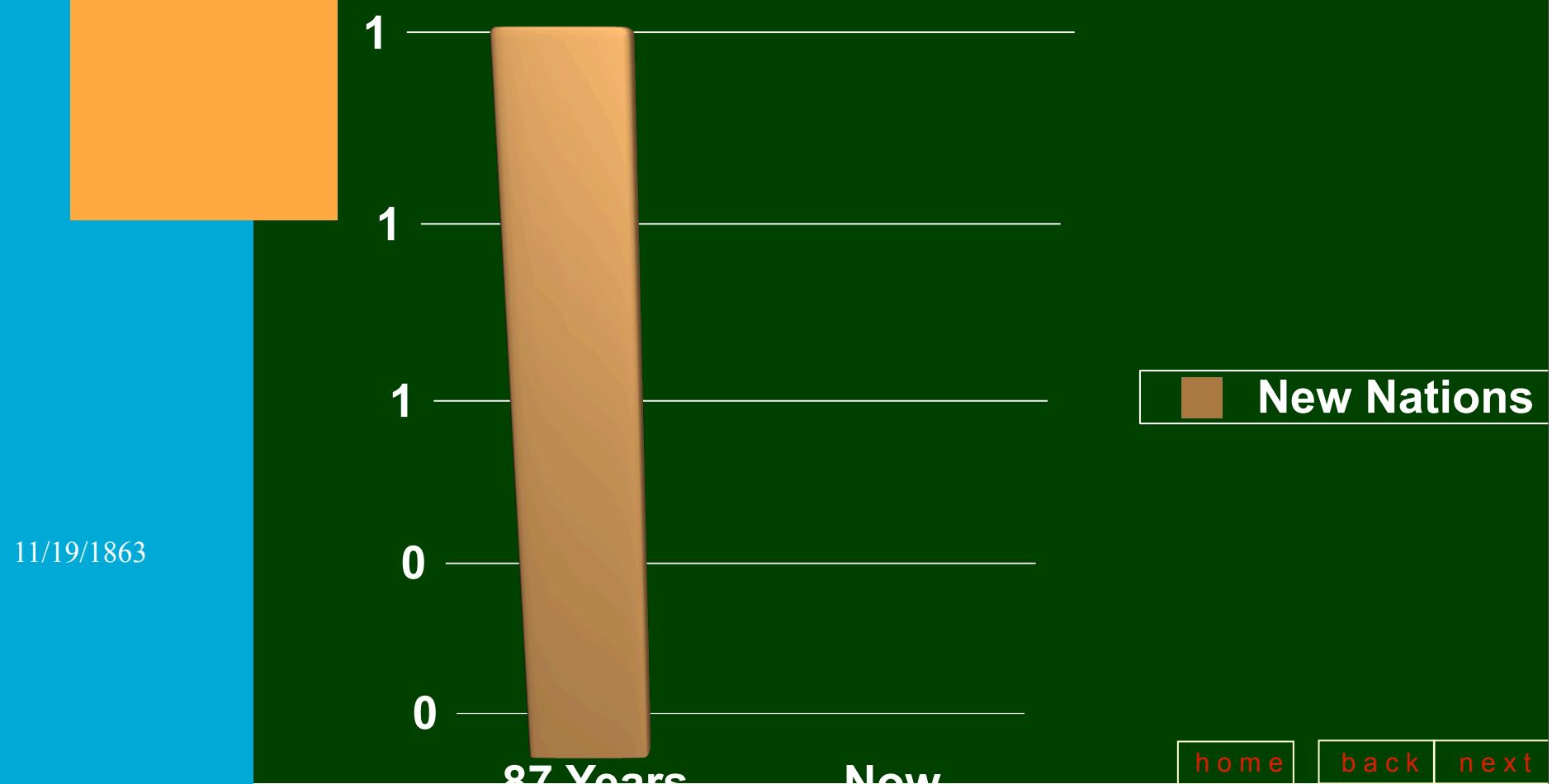
11/19/1863

# Review of Key Objectives & Critical Success Factors

- What makes nation unique
  - Conceived in Liberty
  - Men are equal
- Shared vision
  - New birth of freedom
  - Gov't of/for/by the people

11/19/1863

# Organizational Overview



# Summary

- New nation
- Civil war
- Dedicate field
- Dedicated to unfinished work
- New birth of freedom
- Government not perish

11/19/1863

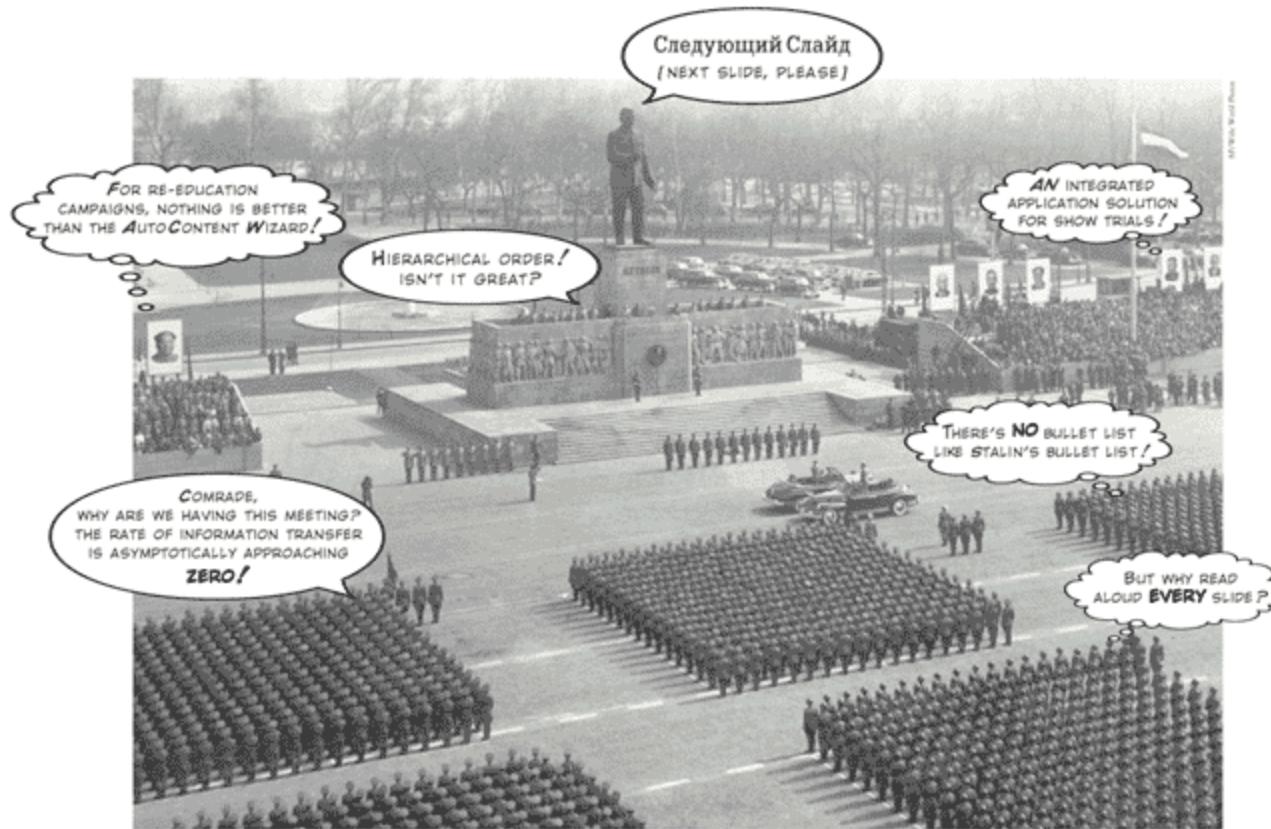


**the default cognitive  
style of powerpoint  
causes nausea**

SECOND EDITION

Edward R. Tufte

## *The Cognitive Style of PowerPoint: Pitching Out Corrupts Within*



## Review of Test Data Indicates Conservatism for Tile Penetration

- The existing SOFI on tile test data used to create Crater was reviewed along with STS-87 Southwest Research data
  - Crater overpredicted penetration of tile coating significantly
    - Initial penetration is described by normal velocity
      - Varies with volume/mass of projectile (e.g., 200ft/sec for 3cu. In)
      - Significant energy is required for the softer SOFI particle to penetrate the relatively hard tile coating
        - Test results do show that it is possible at sufficient mass and velocity
      - Conversely, once tile is penetrated SOFI can cause significant damage
        - Minor variations in total energy (above penetration level) can cause significant tile damage
    - Flight condition is significantly outside of test database
      - Volume of ramp is 1920cu in vs 3 cu in for test

“The use of the PowerPoint presentation has been a disaster... It should be ditched.”

John Sweller  
University of NSW



FOREWORD BY GUY KAWASAKI

# presentationzen

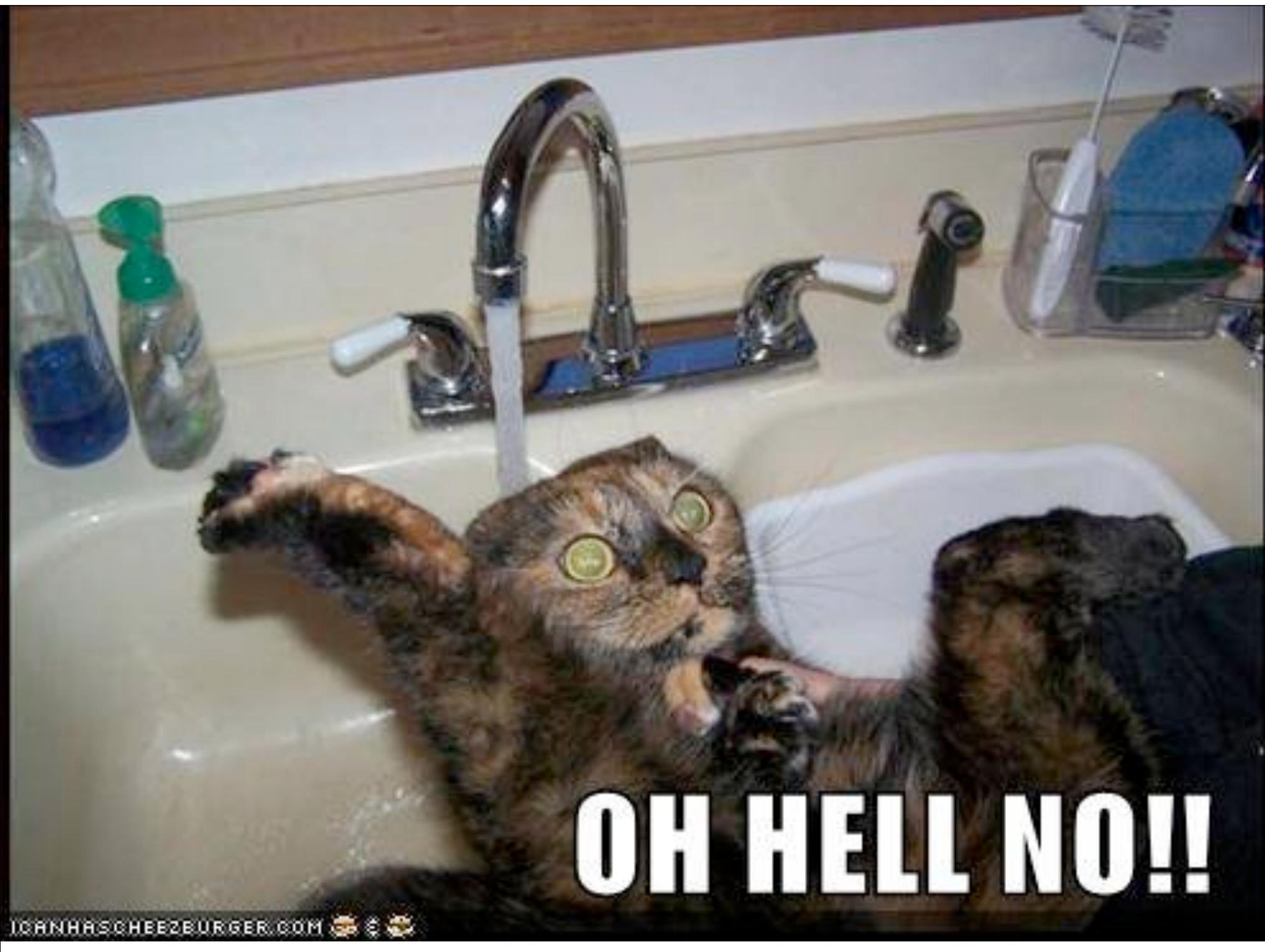
Simple Ideas on Presentation Design and Delivery



**Garr Reynolds**

New  
Riders

VOICES THAT MATTER™



**OH HELL NO!!!**

# building an emotional arc

motherhood in the  
animal kingdom:

on the riverbank



ZIBABIN.COM

# in the arctic



# in africa



**ZIBABIN.COM**

# in India



**ZIBABIN.COM**

in the ocean



**ZIBABIN.COM**



**ZIBBIN.COM**

# “slideument”

you can use slides for presentations OR to  
create a document...

...but NOT both

good for neither

decide on the format

compromise where required

# avoiding slideuments

make a presentation, add text in notes

make a fancy outline, never present it

push back on company policy that says you must use powerpoint for all communication

better to use a concrete slab

leads to “death by powerpoint”

# a sample “corporate” presentation



# AcmeCorp & SOA

**SCOTT CONLEY** managing director

**ThoughtWorks**

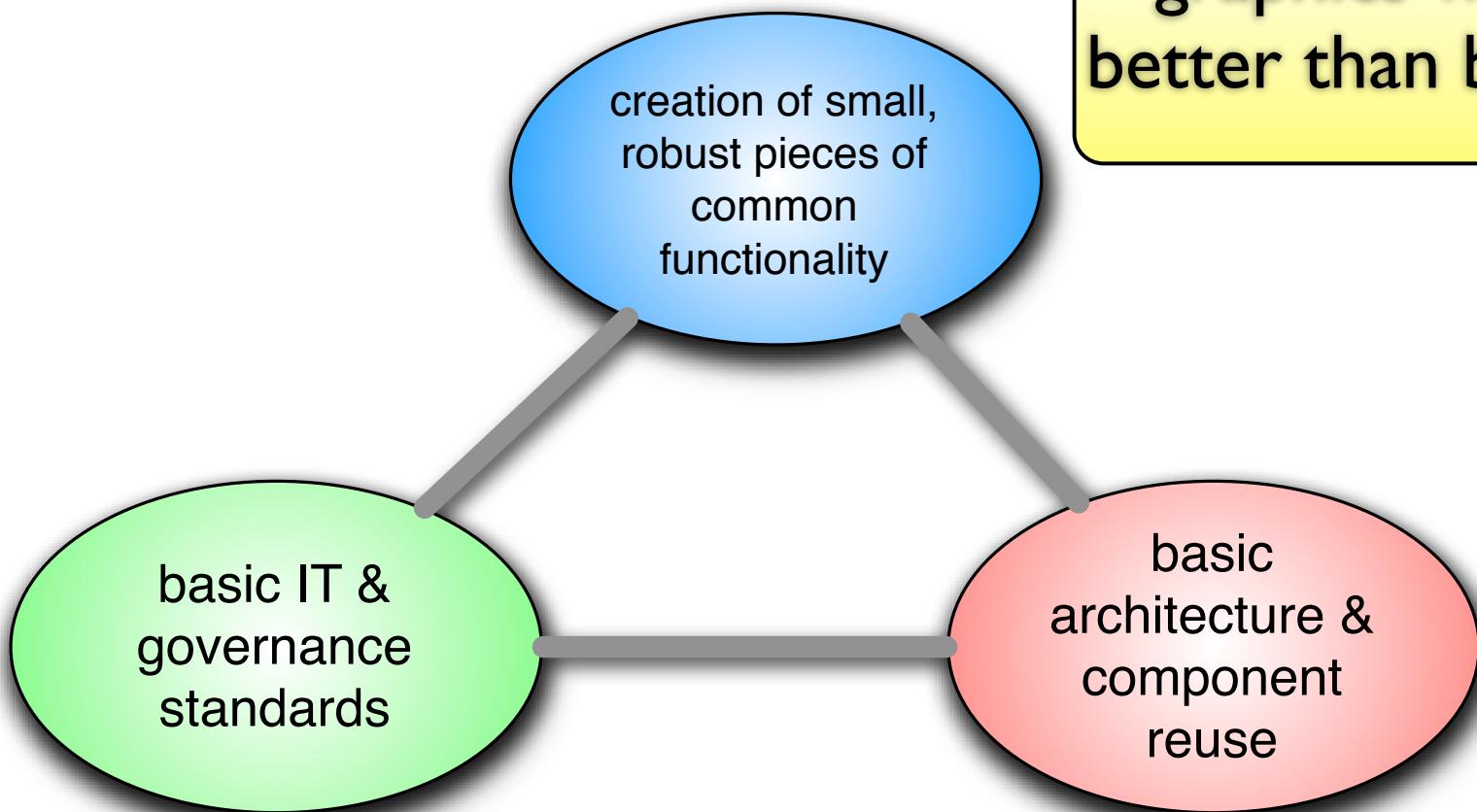
**sconley@thoughtworks.com**  
**3003 Summit Boulevard, Suite 1500, Atlanta, GA 30319**  
tel 404 460 5634  
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**NEAL FORD** software architect / meme wrangler

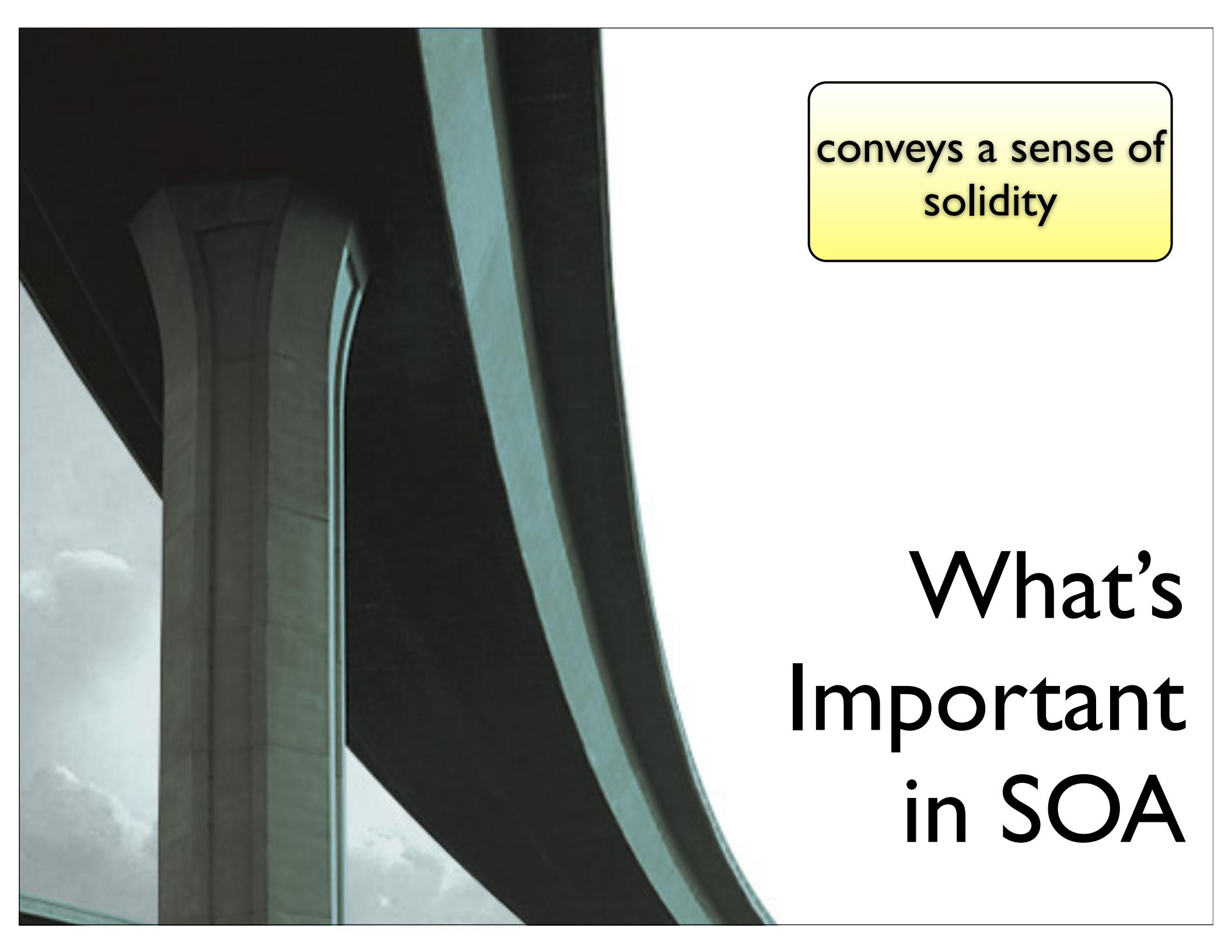
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blog: [memeagora.blogspot.com](http://memeagora.blogspot.com)  
twitter: [neal4d](http://neal4d)

# Evolutionary Architecture



graphics work  
better than bullets

The background image shows a close-up view of a building's exterior. It features several large, dark-colored panels, possibly made of metal or a composite material, which are curved and overlap each other. The lighting creates strong shadows and highlights on the surfaces, emphasizing their texture and depth. The overall aesthetic is clean, modern, and industrial.

**conveys a sense of  
solidity**

**What's  
Important  
in SOA**

# What's Important in SOA

- I. Testable infrastructure
2. Predictable delivery
3. Reasonable security
4. Easy deployment & monitoring
- 5. Incentivizing sharing at a business level**

# I. Testable Infrastructure

Easy to test all cases

Automated testing for

unit

functional

integration

user acceptance

indentation  
rather than bullets



# 2. Predictable Delivery

Deliver business value

Small, incremental steps

Continual deployment

Sustainable for

- developers
- business
- innovation



# 3. Reasonable Security

How much is enough?

How much is too much?

Security can evolve too

“One size fits all” never does

well chosen subtle  
graphical elements



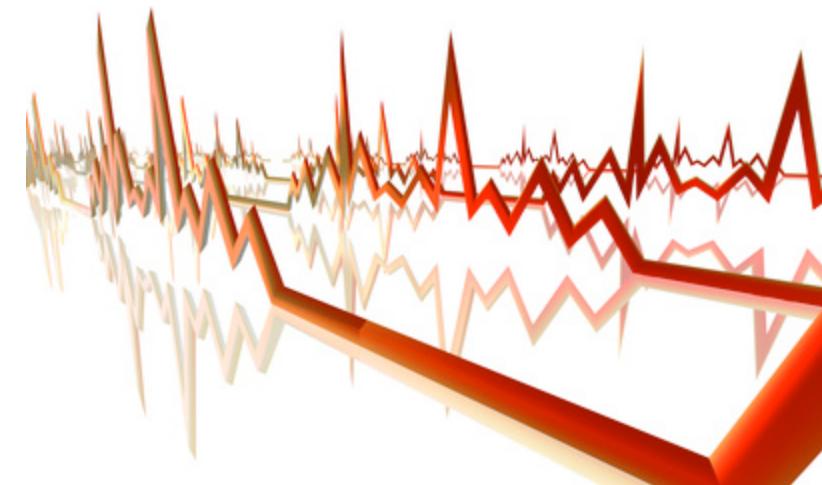
# 4. Easy Deployment & Monitoring

Deployment must be

- easy
- repeatable
- automated

You can't debug SOA...

...but you can monitor it



# 5. Incentivized Sharing

The biggest challenge isn't writing reusable code...

...it's finding code ready for reuse

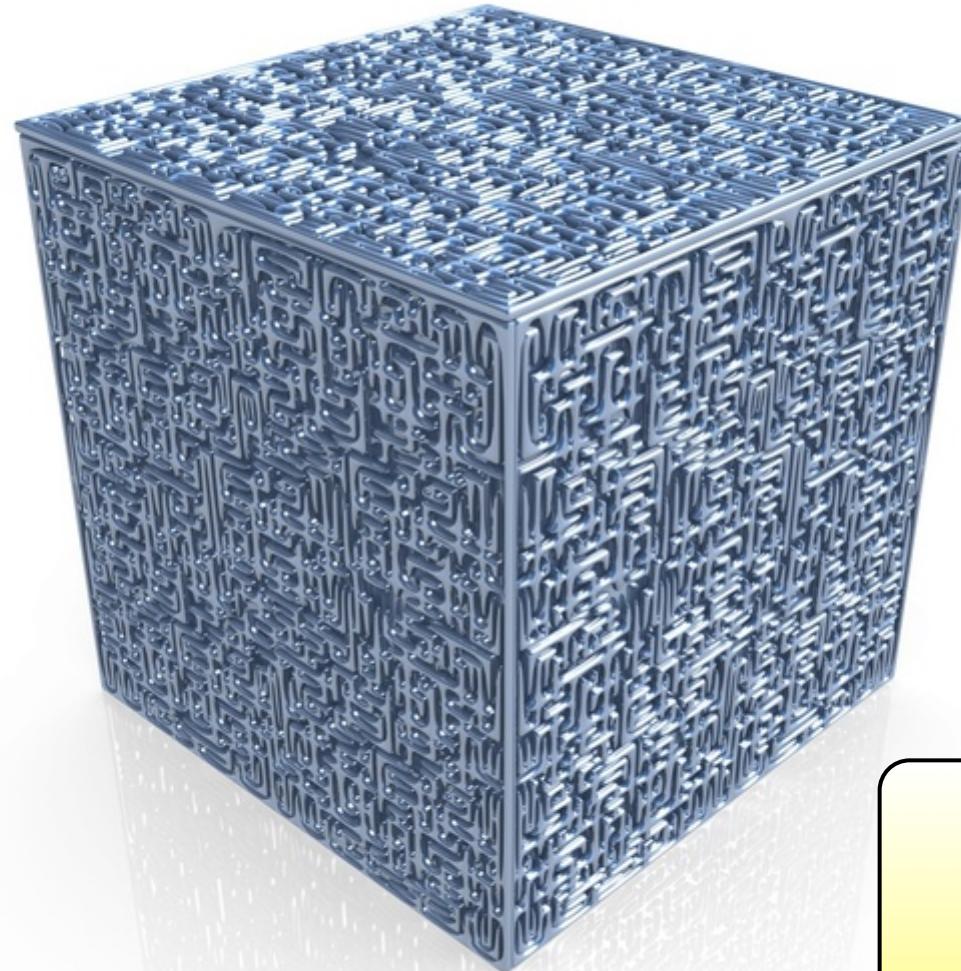
Find ways to encourage code reuse

Leverage existing assets

Harvest new assets



# Technology Behind SOA



Oooo,  
complicated!

# Microsoft + SOA

Every platform defines their own primrose path

For Microsoft:

- WCF + SOAP/RPC + BizTalk
- IDE generated endpoints

The hazards of Dietlzer's Law

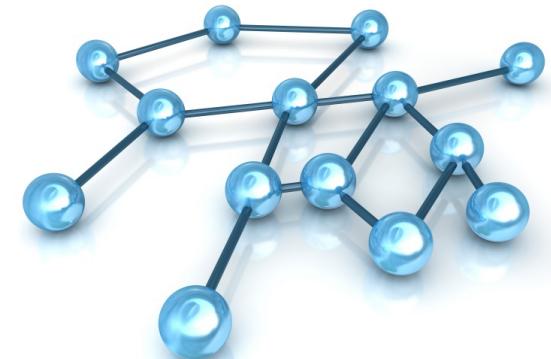
# Pragmatic SOA atop Microsoft

WCF with hand-tuned code generation

RESTful messages

MSMQ for messaging

SSL + IIS for security



# Making It Stick

Make small, impactful changes

- Triangle corners enhance and enforce each other
- Learning from each iteration guarantees capitalization on successes and avoidance of repeat mistakes



# Making It Stick

Developer approach must become business-centric, not technology-centric

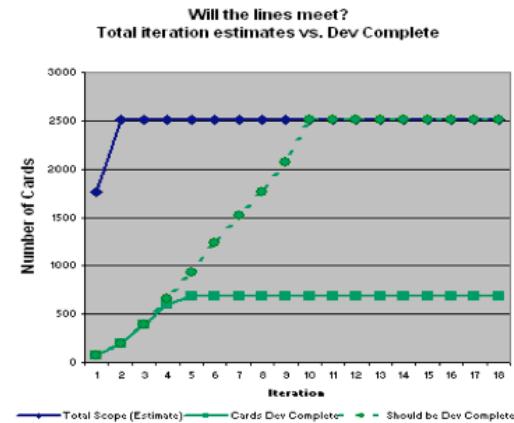
- IT must provide business value
- No need for a new tool for every project.
- Agree on a basic set of tools and use them unless a new need arises



# Metrics-driven Development

Project metrics:

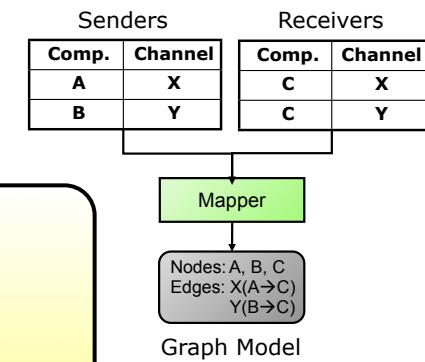
- Velocity
- Effectiveness



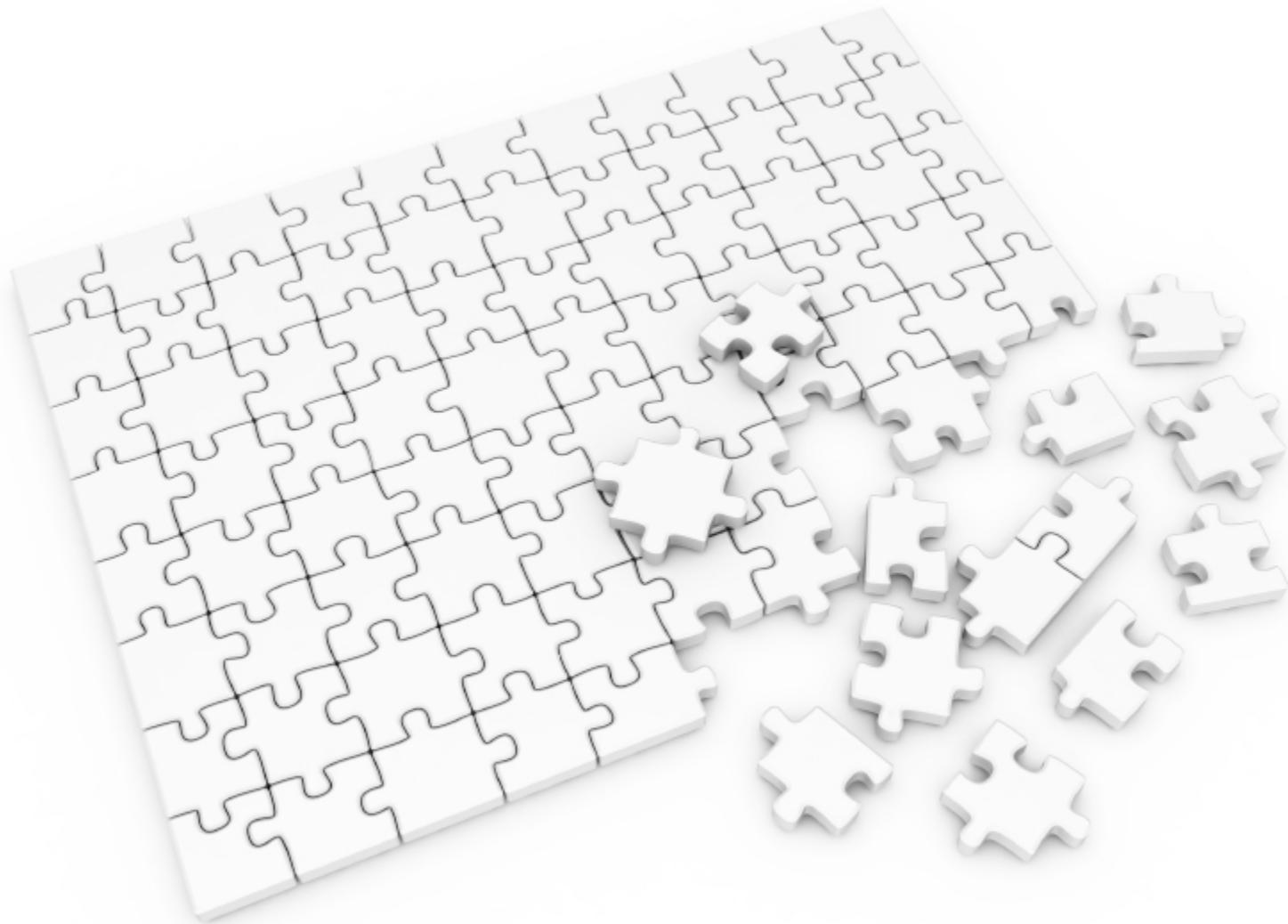
Technical metrics:

- Throughput
- Utilization
- Reuse

graphics  
compliment text



# Effective SOA



# Enterprise Architect Role



- Evaluates architecture and coarse-grained design decisions
- Helps establish and monitor infrastructure
- Mediates technical disputes with an eye towards evolution
- Disseminates knowledge

# Sustainability / Durability

Incremental over Big Bang deployment

Renewal over rip-and-replace

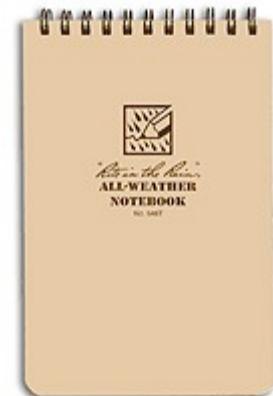
Simple message queue over elaborate middleware

REST over SOAP

Automation over IDE code generation

Merging over branching

Harvesting over highjacking

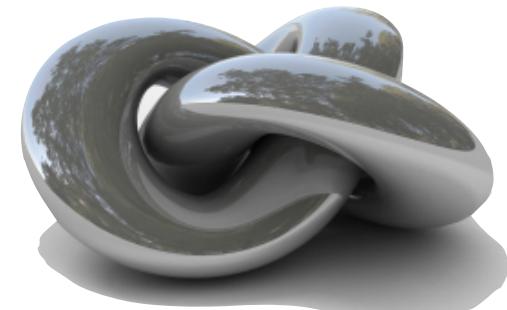


# Engagement Patterns

Enterprise Architect:

iron == heavy  
infinity == long  
lasting

- Consulting / enablement
- Arbiter of good design
- Repeatable idiomatic patterns
- Automation



# Enterprise Architects with ThoughtWorks

One senior architect in the EA team

- Drive out patterns
- Discover best practices

Two senior technology consultants

- Prototype liaisons
- Key elements of ambassador team

Delivery automation technologist



# Engagement Patterns

## Governance:

- Jointly develop best practices
- Build AcmeCorp knowledge base
- How lightweight can we get away with?
- Avoiding pitfalls



# Governance with ThoughtWorks

EA professionals stimulate the genesis of  
the knowledge base

Planting the seeds for enterprise wide best  
practices

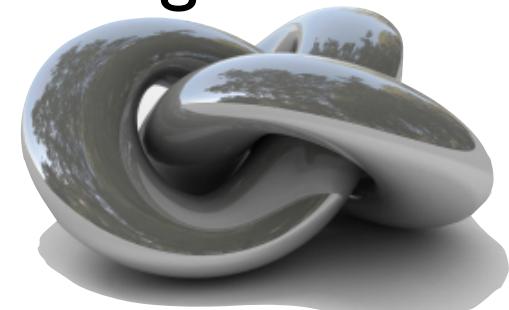
Pragmatic service reuse

Proactively fighting ignorance

# Engagement Patterns

## CTAs / Pilot Projects:

- Determining business value
- Determining orthogonality
- Facilitating collaboration between business stakeholders and technologists



# What Makes a Good Pilot

Fits with what you are trying to prove

Appropriate risk

Solve a real business problem

High visibility

Timeboxed

2nd pilot runs deep



# ThoughtWorks & Pilot Projects

Top-level focus for integration of business, enterprise & application architecture

Select pilot projects

- Driven via project manager, business analyst, and technologist
- Rich set of services to prove reusability on 2nd project

# Resources

Emergent Design & Evolutionary  
Architecture article series on IBM  
Developerworks by Neal Ford

- <http://tinyurl.com/nf-ead>

Guerilla SOA talk at QCon San Francisco  
by Jim Webber

- <http://www.infoq.com/presentations/webber-guerilla-soa>



[www.thoughtworks.com](http://www.thoughtworks.com)

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blog: [memeagora.blogspot.com](http://memeagora.blogspot.com)  
twitter: [neal4d](http://neal4d)

# observations

as little slideument as possible

compelling but not overwhelming imagery  
throughout

bullets only for indented items

overt structure: credentialize, supply real  
information, how we can help

still printable but really useful only to attendees

interoffice  
communication



# meetings





not all meetings  
are evil

# making meetings suck less

create an agenda & stick to it

stop long discussions and put them on the agenda for the next meeting

remind everyone how much money this costs the company

don't conflate issues

deflect them (or have someone do it for you)

# email

1. switch to your email client
2. choose "New/Compose Message" from the interface
3. type the recipient's name (autocomplete in most email programs typically helps to reduce this to 3-4 keystrokes)
4. type tab or return to go to the next field (typically another to or cc field)
5. type tab or return again to go to the subject field
6. think up a subject (or ideally skip it)
7. type a subject (or ideally skip it)
8. type tab or return again to go to the message body field
9. type in your message
10. click send

# why email sucks

emails tend to bloat with lots of different topics  
and details

hard to answer because you have to respond to  
each point

reply-to-all is evil

overloaded as the only communication channel

constant interruptions

# making email suck less

summarize, then delve into details

reply to only one thing at a time

discourage long-winded exchanges

find a better communication channel

# email netiquette

according to RFC1855:

*If you are sending a reply to a message or a posting be sure you summarize the original at the top of the message, or include just enough text of the original to give a context. This will make sure readers understand when they start to read your response.*

don't top-post

<http://en.wikipedia.org/wiki/Top-posting>

don't use email as your to-do list



# Inbox Zero



Email check times: 9am, 12pm, 3pm



Delete it



(2 min) = Action it.  
(2 min plus) = Action Folder



Forward it



Archive it



Action Folder



1. Action till complete



2. Delete it



3. Archive it

join the  
inbox zero  
movement/  
cult



# instant messaging

much less cognitive load than email

short messages encouraged/required

status message

possible to survive disruptions to flow

quick, single subject messages disrupt workflow  
less

# effective communication

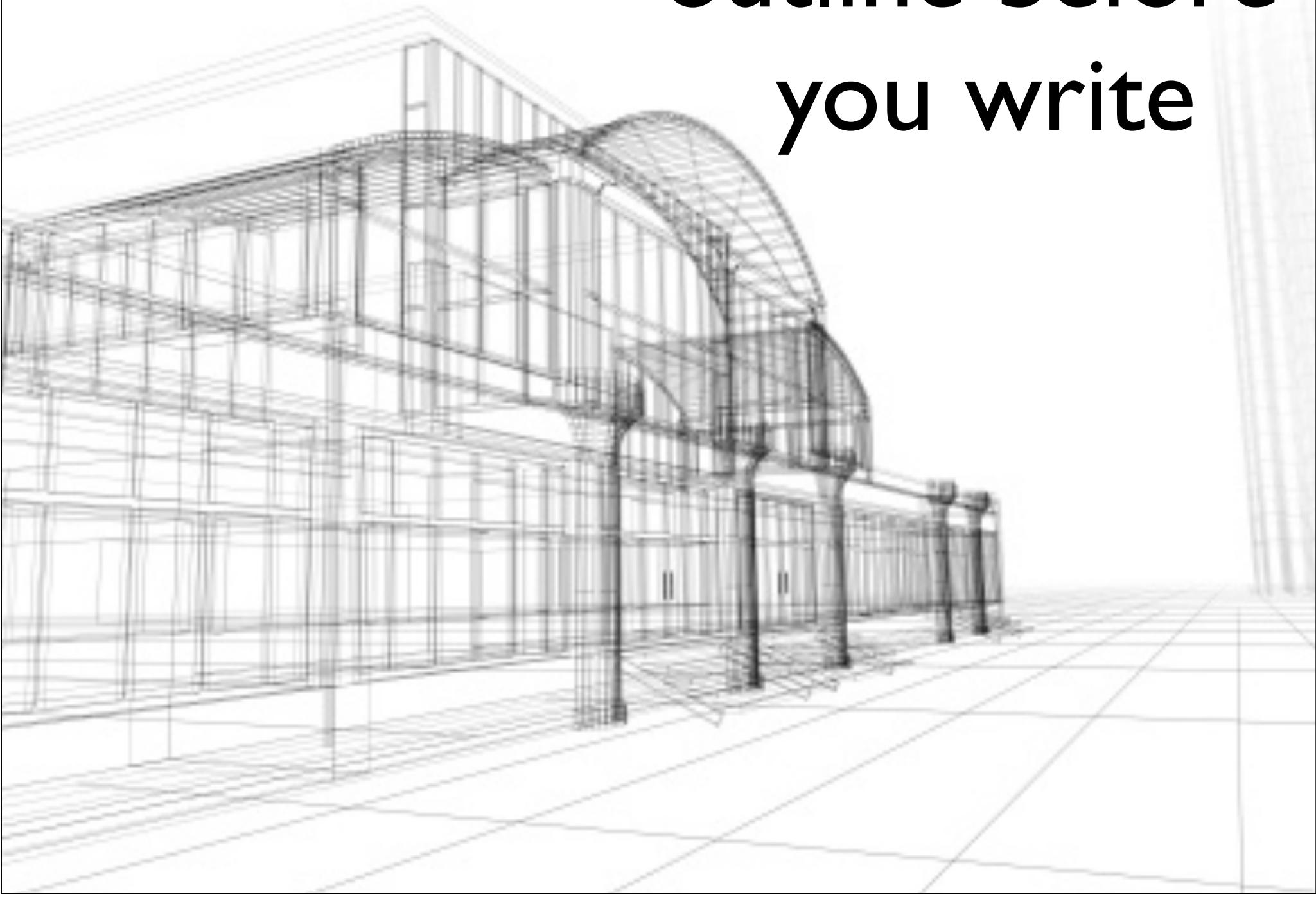


# simple, declarative writing

A faint, large watermark-like background of various letters and numbers in different sizes and orientations.

The letters include: b, V, h, u, K, o, w, M, H, i, L, S, d, t, Y, y, H, m, x, f, n, L, c, Q, z, j, b, f, v, R, B, f, z, s, u, f, G, A, C, P, F, e, k, T, S, e, h, n, f, o, y, C, P, f, G, A, e.

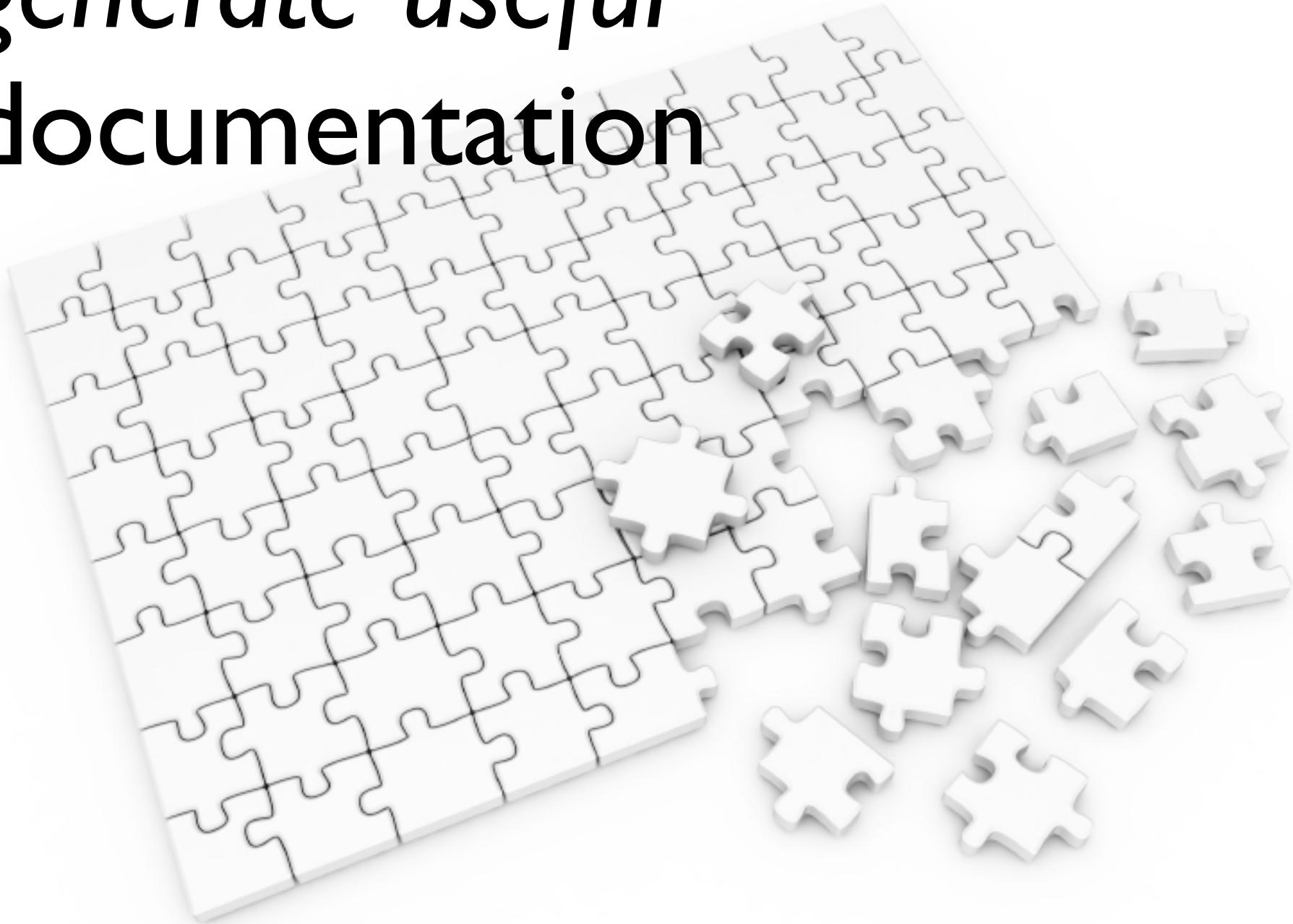
**outline before  
you write**





**don't create  
slideuments**

*generate useful  
documentation*



? , S

please fill out the session evaluations  
samples at [github.com/nealford](https://github.com/nealford)



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twitter: neal4d