Sometimes a Controller is just A Controller
Fancy Code
Fancy Code

vs

Code
Fancy Code vs boring code
#!/bin/bash

function install_gems()
{
    local version=$1
    export BUNDLE_GEMFILE="gemfiles/rails-$version"
    bundle install --no-binstubs
}

export -f install_gems

function run_tests()
{
    local version=$1
    export BUNDLE_GEMFILE="gemfiles/rails-$version"
    bundle exec rake testbed:current:all
}

export -f run_tests
#!/bin/bash

function install_gems()
{
  local version=$1
  export BUNDLE_GEMFILE="gemfiles/rails-$version"
  bundle install --no-binstubs
}

export -f install_gems

function run_tests()
{
  local version=$1
  export BUNDLE_GEMFILE="gemfiles/rails-$version"
  bundle exec rake testbed:current:all
}
Boring code is so much easier to read!
Turns out, that'd be a boring talk.
Talks by Justin Searls

The Social Coding Contract
Nov 19, 2014 by Justin Searls

JavaScript Testing Tactics Lightning Edition
May 9, 2014 by Justin Searls

The "Rails of JavaScript"
won't be a framework
Apr 25, 2014 by Justin Searls

Breaking up (with) your test suite
Apr 3, 2014 by Justin Searls

as easy as rails
Feb 8, 2014 by Justin Searls

1st class web development with lineman
Nov 8, 2013 by Justin Searls

Office Politics for the thin-skinned

 Into the depths of reality is expensive

Speaker Details

Justin Searls
Co-founder of Test Double—contact us at if you'd like to build something together!

http://testdouble.com
http://about.me/searls

2 Stars
I am not an artist
I am not an artiste
I am not an artíste
I am not an artìste
Artists say "I love your slides"
Artists say "I love your slides"

:crying with tears of joy:
"Really, I love that you put so much time into your slides"
"Really, I love that you put so much time into your slides" 😭😭
Time
Time
Ordered On April 10, 2015
Order Number: W9876541234

Ships To: Justin Searls

Preparing for Shipment • Delivers: 4/24–5/8 by Standard Shipping
Not eligible to cancel or return | Why?

Apple Watch Sport 42mm Space Gray Aluminum Case with Black Sport Band

Ordered On April 10, 2015
Order Number: W123456789

Ships To: Justin Searls

Processing Items • Delivers: 4/24–5/8 by Standard Shipping
Cancel Items
Horological Study:
Horological Study:

time - slides = 0
People Won Over
People Won Over

Time (hours):
- 1 hour
- 10 hours
- 20 hours
- 40 hours
- 60 hours
People Won Over

0% - 100%:
- 1 hour
- 10 hours
- 20 hours
- 40 hours
- 60 hours
People Won Over

- 1 hour
- 10 hours
- 20 hours
- 40 hours
- 60 hours

Graph showing the percentage of people won over over time.
People Won Over

0% 1 hour
20% 10 hours
40% 20 hours
60% 40 hours
80% 60 hours

Graph showing the percentage of people won over over time.
People Won Over

0% 1 hour
10% 10 hours
20% 20 hours
40% 40 hours
60% 60 hours
80% 80 hours
100% 100 hours
People Won Over

![Graph showing the percentage of people won over over time. The percentage increases from 0% at 1 hour to 80% at 60 hours. The graph has a red X at 60 hours.]
80 / 20 Rule
People Won Over

- 1 hour: 0%
- 10 hours: 20%
- 20 hours: 40%
- 40 hours: 60%
- 60 hours: 80%
People Won Over

0%  20%  40%  60%  80%  100%

1 hour  10 hours  20 hours  40 hours  60 hours

X
Time
Sometimes, a Controller is just A Controller
Sometimes a slide is just a slide
"Good" Talk
But anyway
Good Code
1. tiny units
1. tiny units
   1a. no, like hilariously tiny
1. tiny units
   1a. no, like hilariously tiny
   1b. as in, units with one public method
1. tiny units
1a. no, like hilariously tiny
1b. as in, units with one public method
1c. extract privates from complex code for the name, not the abstraction
1. tiny units
   1a. no, like hilariously tiny
   1b. as in, units with one public method
   1c. extract privates from complex code for the name, not the abstraction
2. units can hold & describe a value or perform useful behavior, never both
1. tiny units
   1a. no, like hilariously tiny
   1b. as in, units with one public method
   1c. extract privates from complex code for the name, not the abstraction
2. units can hold & describe a value or perform useful behavior, never both
3. behavior-ey units can contain logic or depend on other units, not both
1. tiny units
   1a. no, like hilariously tiny
   1b. as in, units with one public method
   1c. extract privates from complex code for the name, not the abstraction
2. units can hold & describe a value or perform useful behavior, never both
3. behavior-ey units can contain logic or depend on other units, not both
4. eliminate local variables to an absurd degree
1. tiny units
   1a. no, like hilariously tiny
   1b. as in, units with one public method
   1c. extract privates from complex code for the name, not the abstraction
2. units can hold & describe a value or perform useful behavior, never both
3. behavior-ey units can contain logic or depend on other units, not both
4. eliminate local variables to an absurd degree
   4a. start with functional chains
1. tiny units
   1a. no, like hilariously tiny
   1b. as in, units with one public method
   1c. extract privates from complex code for the name, not the abstraction
2. units can hold & describe a value or perform useful behavior, never both
3. behavior-ey units can contain logic or depend on other units, not both
4. eliminate local variables to an absurd degree
   4a. start with functional chains
   4b. refactor via functional composition
1. tiny units
   1a. no, like hilariously tiny
   1b. as in, units with one public method
   1c. extract privates from complex code for the name, not the abstraction
2. units can hold & describe a value or perform useful behavior, never both
3. behavior-ey units can contain logic or depend on other units, not both
4. eliminate local variables to an absurd degree
   4a. start with functional chains
   4b. refactor via functional composition
   4c. use `tap/each` as if to scream "Side Effect!"
1. tiny units
   1a. no, like hilariously tiny
   1b. as in, units with one public method
   1c. extract privates from complex code for the name, not the abstraction
2. units can hold & describe a value or perform useful behavior, never both
3. behavior-ey units can contain logic or depend on other units, not both
4. eliminate local variables to an absurd degree
   4a. start with functional chains
   4b. refactor via functional composition
   4c. use tap/each as if to scream "Side Effect!"
5. minimize third-party dependencies and write wrappers around them
1. tiny units
   1a. no, like hilariously tiny
   1b. as in, units with one public method
   1c. extract privates from complex code for the name, not the abstraction
2. units can hold & describe a value or perform useful behavior, never both
3. behavior-ey units can contain logic or depend on other units, not both
4. eliminate local variables to an absurd degree
   4a. start with functional chains
   4b. refactor via functional composition
   4c. use `tap/each` as if to scream "Side Effect!"
5. minimize third-party dependencies and write wrappers around them
6. pull side-effects nearer the entry point (imperative shell / functional core)
1. tiny units
   1a. no, like hilariously tiny
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5. minimize third-party dependencies and write wrappers around them
6. pull side-effects nearer the entry point (imperative shell / functional core)
7. disagree with whatever my pair does every 10 minutes
1. tiny units
   1a. no, like hilariously tiny
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   4c. use `tap/each` as if to scream "Side Effect!"
5. minimize third-party dependencies and write wrappers around them
6. pull side-effects nearer the entry point (imperative shell / functional core)
7. disagree with whatever my pair does every 10 minutes
8. overwhelm people with information so that I get my way
The end.
My name is Justin Searls
Please tweet me @searls &
Say hello@testdouble.com
My Favorite Way
Your Favorite Way
Your Team's Favorite Way
Your Framework's Favorite Way
Your Boss's Favorite Way
Your Boss's Favorite Way
Your Boss's Favorite Way
Your Boss's Favorite Way

靶心
闹钟
带翅膀的钱
(video)
If you combine everybody's favorite way then maybe...
Good Code
Hypothesis:

There's no such thing as Good Code
Exhibit A:
Snake oil still sells out as fast as Hacker News can stock it.
Exhibit B:
Projects rarely succeed or fail because of code quality
Exhibit C:

The industry doesn't seem to produce better code over time
If natural selection applies to software, it isn't selecting for code quality.
Good Code
1. Performs a function
1. Performs a function
2. Communicates intent
Performs a function
Performs a function
Performs a function
Performs a function
Functionality is Objective
Functionality is Objective

:ok hand sign:
Communicates intent
Communicates intent
Communicates intent
Communicates intent
Communication is Subjective
Communication is Subjective

ขวั flushed face emoji(414,246),(585,681)
Conflating objective & subjective goals makes evaluation hard
Conflating objective & subjective goals makes evaluation hard.
No Idea
Otherwise, we emphasize function because measurement is easier.
Otherwise, we emphasize function because measurement is easier.

:chart with upwards trend:
Wrong Idea
No Idea
Snowball Effect
As individuals
If only an app could tell us whether our code was good!
So I made one for you:
So I made one for you:

is my code good.com
(Don't view the source)
Version 2 Announcement:
Version 2 Announcement:

10x developer conversion
Version 2 Announcement: 10x developer conversion
Q: Why do scoring, ranking & achievements comfort us?
Q: Why do scoring, ranking & achievements comfort us?

A: Quantified measurement can soothe our self-doubt.
Every programmer shares a secret fear
What if my code sucks?
Everyone else seems to have it figured out....
Maybe they know something I don't?
Maybe I'll fool them if I use more big words
coping intensifies
coping intensifies
Fear, insecurity, & doubt varies
Fear, insecurity, & doubt varies
Fear, insecurity, & doubt varies
Fear, insecurity, & doubt varies

introspective  self-assured
Fear, insecurity, & doubt varies

introspective ← empathetic ← indifferent
self-assured
Fear, insecurity, & doubt varies

- introspective ← persuadable
- self-assured → indifferent
- empathetic ← unflinching
Let's practice rating me!
Each arriving traveler or responsible family member must provide the following information (only ONE written declaration per family is required). The term “family” is defined as “members of a family residing in the same household who are related by blood, marriage, domestic relationship, or adoption.”

<table>
<thead>
<tr>
<th>Family Name</th>
<th>First (Given)</th>
<th>Middle</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Birth date</th>
<th>Month</th>
<th>Day</th>
<th>Year</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Number of Family members traveling with you</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Countries visited on this trip prior to U.S. arrival</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Airline/Flight No. or Vessel Name</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>The primary purpose of this trip is business:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>I am (We are) bringing</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) fruits, vegetables, plants, seeds, food, insects:</td>
</tr>
<tr>
<td>(b) meats, animals, animal/wildlife products:</td>
</tr>
<tr>
<td>(c) disease agents, cell cultures, snails:</td>
</tr>
<tr>
<td>(d) soil or have been on a farm/ranch/pasture:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I have (We have) been in close proximity of livestock:</th>
</tr>
</thead>
</table>
Countries visited on this trip prior to U.S. arrival

The primary purpose of this trip is business:  
Yes  
No

I am (We are) bringing 
(a) fruits, vegetables, plants, seeds, food, insects:  
Yes  
No
(b) meats, animals, animal/wildlife products:  
Yes  
No
(c) disease agents, cell cultures, snails:  
Yes  
No
(d) soil or have been on a farm/ranch/pasture:  
Yes  
No

I have (We have) been in close proximity of livestock:  
Yes  
No 
(such as touching or handling)

I am (We are) carrying currency or monetary instruments over $10,000 U.S. or foreign equivalent:  
Yes  
No 
(see definition of monetary instruments on reverse)
Country of Residence: USA

Countries visited on this trip prior to U.S. arrival: FRANCE

Airline/Flight No. or Vessel Name: AF 0378

The primary purpose of this trip is **business**: Yes X No

I am (We are) bringing:
(a) fruits, vegetables, plants, seeds, food, insects: Yes X No
(b) meats, animals, animal/wildlife products: Yes X No
(c) disease agents, cell cultures, snails: Yes X No
(d) soil or have been on a farm/ranch/pasture: Yes No

I have (We have) been in close proximity of **livestock**:
(such as touching or handling): Yes X No

I am (We are) carrying **currency or monetary instruments**:
over $10,000 U.S. or foreign equivalent:
(see definition of monetary instruments on reverse): Yes No X

I have (We have) **commercial merchandise**: Yes No X
Country of Residence: USA

Countries visited on this trip prior to U.S. arrival: FRANCE

Airline/Flight No. or Vessel Name: AF 0378

The primary purpose of this trip is business: Yes [X] No

I am (We are) bringing:
(a) fruits, vegetables, plants, seeds, food, insects: Yes [X] No
(b) meats, animals, animal/wildlife products: Yes [X] No
(c) disease agents, cell cultures, snails: Yes [X] No
(d) soil or have been on a farm/ranch/pasture: Yes [X] No

I have (We have) been in close proximity of livestock: Yes [X] No
(such as touching or handling)

I am (We are) carrying currency or monetary instruments over $10,000 U.S. or foreign equivalent: Yes [X] No
(see definition of monetary instruments on reverse)

I have (We have) commercial merchandise: Yes [X] No
Fear, insecurity, & doubt varies

introspective ← self-assured
Fear, insecurity, & doubt varies

introspective ← [emoji] self-assured
Held to subjective evaluation standards
Held to subjective evaluation standards

paralyzed by self-doubt
Held to subjective evaluation standards

paralyzed by self-doubt

rates self favorably
Communication competence:
Communication competence:

effective communicator
Communication competence:

effective communicator  clear communicator
Communication competence:

- **effective communicator**
- **clear communicator**

(to like-minded people)
we evaluate code poorly
we evaluate code poorly

conscientious coders doubt themselves
we evaluate code poorly

conscientious coders doubt themselves

callous coders outperform others
we evaluate code poorly

callous coders outperform others

conscientious coders doubt themselves

conscientious coders marginalized and then quit
we evaluate code poorly
more

conscientious coders marginalized and then quit

callous coders outperform others

conscientious coders doubt themselves
we evaluate code poorly more

conscientious coders doubt themselves

callous coders outperform others

conscientious coders marginalized and then quit
we evaluate code poorly more

conscientious coders marginalized and then quit

callous coders outperform others

conscientious coders doubt themselves
Guess which group does better at whiteboard interviews?
Guess which group does better at whiteboard interviews?

NOOOO0000000000000000
Did you groan in realization this was a soft talk?
Did you groan in realization this was a soft talk? Then this talk's for you!
THE FOLLOWING **TALK** HAS BEEN APPROVED FOR

APPROPRIATE AUDIENCES

BY THE PEOPLE WHO RATE TALKS, I GUESS?

THE TALK ADVERTISED HAS BEEN RATED

**F**EEL**S**

SOME STRONG EMOTIONS, EVIDENCE OF RELATABLE HUMANITY THROUGHOUT
THE FOLLOWING TALK HAS BEEN APPROVED FOR APPROPRIATE AUDIENCES

BY THE PEOPLE WHO RATE TALKS, I GUESS?

THE TALK ADVERTISED HAS BEEN RATED FEELS SOME STRONG EMOTIONS, EVIDENCE OF RELATABLE HUMANITY THROUGHOUT.
Write Code the Right Way
Communication can only be "correct" for a set of contexts
XP System Metaphors
Know your audience
Know your audience

:crystal ball:
Popular belief in a "Right Way" causes problems.
As a programmer, I want to convert ______ and send it over ______ using ______ so that I can ______________.
As a programmer, I want to convert _____ to PDF and send it over ______ using _____ so that I can ______________.
As a programmer, I want to convert _____ to PDF and send it over _____ using _____ so that I can ______________.
As a programmer, I want to convert _____ to PDF and send it over Fax using Rails so that I can __________________.
As a programmer, I want to convert ______ and send it over ______ using ______ so that I can ___________.
best pdf gem rails
no results found
no results found

:anguished face:
Why would anyone prefer JavaScript?
What's the right way to 🧨?
What's the right way to ⛄️?

Does your code run? If so, then that's the right way!
A Wild West can be liberating!
A Wild West can be liberating!
It’s fun to complain about bad code, but I have to remember that “perfect” is the enemy of “shipped”.

8:11 AM - 4 Mar 2015
As teams
Ever excitedly try a new approach and team members shot you down?
Ever excitedly try a new approach and team members shot you down?

خفض الوجه الع我爸ش
Ever had a team member shoehorn a weird code style into your project?
Ever had a team member shoehorn a weird code style into your project?

😊:unamused face:
2 sides of the same coin:
2 sides of the same coin: Fundamental Attribution Error
Empathy!
We expend emotional energy compensating for our insecurity
Familiar — Novel
Stubborn and outmoded

Modern Development
Personal insecurity is a barrier to bridging these divides.
Culture Fit
"Culture Fit"
Most dev interviews are like a long ass secret handshake to make sure you belong in the club. It's ritual as much as it is evaluation.
"Culture" vs. "Monoculture"
Dirty Secret #1:
Dirty Secret #1: Monocultures work faster!
Proven Approach  

Hacker News Driven Development
Proven Approach   Hacker News
Driven Development
"Meritocracies" incidentally reinforce monocultures
Dirty Secret #2:
Dirty Secret #2: faster != better
The world teaches us that slow == stupid
Teams that overcome differing perspectives are slower.
Teams that overcome differing perspectives are slower.
Teams that overcome differing perspectives are slower*

*but write more robust systems
Proven Approach

Modern Development
Please! Stop Claiming
Please! Stop Claiming "trust us, <Some Practice> is faster in the long run!"
Dirty Secret #3
Dirty Secret #3
Most dichotomies are false
Culture Fit
Culture Fit
What about code?
Functionality
Priorities

functionality ← communication
Priorities

functionality → communicate to humans
Priorities

communicate to computers

communicate to humans
Priorities

communicate to computers  communicate to humans
Priorities

communicate to computers ↔ communicate to humans
Priorities

communicate to computers  communicate to humans
Priorities

communicate to computers

communicate to humans
Priorities

communicate to computers  communicate to humans
How is our code communicating?
We don't have a good vocabulary for this yet
Indirection Analysis
Each \{ lib, file, method, name \} is an indirection
Each \{macro, reflection, metaprogram\} \textbf{is a \textit{SUPER} indirection}
Indirection Score

For a given code path:
Indirection Score

For a given code path:

1. How many names are encountered?
Indirection Score

For a given code path:

1. How many names are encountered?
2. How many source files contribute code?
Indirection Score

For a given code path:

1. How many names are encountered?
2. How many source files contribute code?
3. How many tests redundantly cover it?
Indirection Score

For a given code path:

1. How many names are encountered?
2. How many source files contribute code?
3. How many tests redundantly cover it?
4. How much is handled by dependencies?
Indirection

WET  ←  DRY
Indirection

WET ← Duplicate Nothing
Indirection

Couple

Nothing

Duplicate

Nothing
Both extremes are costly
Couple
Nothing

Duplicate
Nothing

change one thing
Couple
Nothing

Duplicate
Nothing

😊 change one thing
😭 change many things
Couple Nothing

Duplicate Nothing

😊 change many things
Couple
Nothing

 Duplicate
Nothing

😊 change many things
เหมาะสม

sad face 😞 change one thing
Couple
Nothing

Duplicate
Nothing
Couple Nothing

Duplicate Nothing

😊 learn one piece
Couple Nothing

Duplicate Nothing

😊 learn one piece
😊 learn entire system
Couple
Nothing

Duplicate
Nothing

😢 learn one piece
Couple Nothing  Duplicate Nothing

🤔 learn one piece
😊 learn entire system
Couple Nothing

Yay Nuance!

Duplicate Nothing
Explicit vs. Implicit Indirection
Explicit vs. Implicit Indirection
Explicit vs. Implicit Indirection
Practice communicating about our code's communication
#thoughtleadering
opportunities abound!
As a community
Your team's 6th person
Your team's 6th person
Your team's 6th person
Your team’s 6th person
Your team's 6th person
Thought Leaders
Thought Leaders
Thought Leaders
Who does our code talk to?
PROGRAMMING
PROGRAMMING
PROGRAMMING
:face with cold sweat:
PROGRAMMING
:disappointed but relieved face:
PROGRAMMING

PROGRAMMING
Hero Worship
Speakers, especially keynoters, were so mysterious! Now I'm keynoting PyCon and I know that speakers are mostly just regular ding-dongs.
@garybernhardt total ding-dongs
@searls @garybernhardt can confirm. I am a ding-dong.
Now that I'm a Certified Keynote Speaker™
Now that I'm a Certified Keynote Speaker™

[shuddering intensifies]
Your clever code does not impress me
Your clever code makes me feel stupid.
Clever code is a symptom of poor understanding.
ELI5: How does the United States run on a deficit, and what does that ACTUALLY mean for the future?

submitted 19 hours ago by SomeCallMeNick
1774 comments  share

ELI5: Why can you go the whole day (of course after brushing your teeth) and not get a gross sticky taste in your mouth but take a two hour nap and have what tastes and smells like "morning breath"?

submitted 11 hours ago by Gabepls
18 comments  share

ELI5: What is Social Security, and why is my generation not going to benefit from it?

submitted 6 hours ago by Magic tadpole
47 comments  share
Obvious is more impressive than clever.
Code design approaches are memes
Code design approaches are memes

MVC
Code design approaches are memes

BDD    MVC
Code design approaches are memes

BDD   DSLs   MVC
Code design approaches are memes

BDD    DSLs    MVC

View Presenters
Code design approaches are memes

- BDD
- DSLs
- MVC
- View Presenters
- Fast Specs
Code design approaches are memes

BDD  DSLs  MVC

View Presenters

Fast Specs  Hexagonal Rails
Code design approaches are memes

BDD       DSLs      MVC
View Presenters
Fast Specs   DCI     Hexagonal Rails
Code design approaches are memes

BDD    DSLs    MVC

View Presenters

Fast Specs    DCI    Hexagonal Rails

Fat models / Skinny controllers
Memes are ideas competing for attention via natural selection.
Somebody has idea
Experiments with idea

Somebody has idea
Somebody has idea
Experiments with idea
Shares idea with others
Somebody has idea
Experiments with idea
Shares idea with others
Idea becomes popular
Idea becomes ubiquitous
Idea becomes popular
Shares idea with others
Experiments with idea
Somebody has idea
Idea is finally worth using
Idea becomes ubiquitous
Idea becomes popular
Shares idea with others
Experiments with idea
Somebody has idea
Somebody has idea

Experiments with idea

Shares idea with others

Idea becomes popular

Idea becomes ubiquitous

Idea is finally worth using
Memes are **most valuable** when our audience knows them.
Q: How do design memes ever become ubiquitous?!
Q: How do design memes ever become ubiquitous?! 

A: Symbiotic relationships with early adopters who oversell any intrinsic benefits!
Somebody has idea
Experiments with idea
Idea becomes popular
Idea becomes ubiquitous
Shares idea with others
Experiments with idea
Idea is finally worth using
Idea is finally worth using
Idea becomes ubiquitous
Idea becomes popular
Shares idea with others
Experiments with idea
Somebody has idea
Idea is finally worth using
Idea becomes ubiquitous
Idea becomes popular
Shares idea with others
Experiments with idea
Somebody has idea

"Evangelists"
Somebody has idea

Experiments with idea

Idea becomes popular

Idea becomes ubiquitous

Shares idea with others

Experiments with idea

Idea is finally worth using

Meme Salespeople
Idea is finally worth using
Idea becomes ubiquitous
Idea becomes popular
Shares idea with others
Experiments with idea
Somebody has idea
Aspirational Adopters

Somebody has idea

Experiments with idea

Idea becomes ubiquitous

Idea is finally worth using

Idea becomes popular

Shares idea with others

Somebody has idea
Everyone wants their meme to reach ubiquity & may pressure you to adopt it
Know your audience

:crytal ball:
As an industry
As an industry
You think our inability to evaluate code makes us uncomfortable?
You think our inability to evaluate code makes us uncomfortable? Try talking to a businessperson!
HA HA!

BUSINESS!
How can a non-technical person be sure they're hiring good developers?
How can a non-technical person be sure they're hiring good developers?
How can a non-technical person be sure they're hiring good developers?
Request for Proposals
- Identifies risk, assumptions
- Identifies risk, assumptions
- Rationalizes away risk
- Identifies risk, assumptions
- Emphasizes collaboration

- Rationalizes away risk
- Identifies risk, assumptions
- Emphasizes collaboration

- Rationalizes away risk
- Emphasizes competence
- Identifies risk, assumptions
- Emphasizes collaboration
- Estimates pessimistically

- Rationalizes away risk
- Emphasizes competence
- Identifies risk, assumptions
- Emphasizes collaboration
- Estimates pessimistically

- Rationalizes away risk
- Emphasizes competence
- Estimates optimistically
- Identifies risk, assumptions
- Emphasizes collaboration
- Estimates pessimistically
- Higher bid, rarely wins

- Rationalizes away risk
- Emphasizes competence
- Estimates optimistically
- Identifies risk, assumptions
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- Rationalizes away risk
- Emphasizes competence
- Estimates optimistically
- Lower bid, often wins
- Blames failures on others
Businesses don't realize asking for proposals biases their decisions
Comforting myths that code is \{tangible, quantifiable, fungible\} only perpetuate this bias.
Instead, why not admit & educate that software is full of uncertainty?
Construction
Construction vs
Construction vs Surgery
Construction vs Surgery

(metafor credit: Dan North)
Estimates!
Estimates!

How much time will it take to build with Good Code™?
Estimates!

How much time will it take to build with Good Code™? vs
Estimates!

How much time will it take to build with Good Code™? vs How much uncertainty and/or risk does it pose?
Estimates!
Estimates!

How bad of my Good Code™ will you accept?
Estimates!

How bad of my Good Code™ will you accept? vs
How bad of my Good Code™ will you accept? vs How much uncertainty will you tolerate?

Estimates!
Pick the most uncertain feature
Pick the most uncertain feature

Identify risks & unknowns
Pick the most uncertain feature

Identify risks & unknowns

Execute spikes to reduce uncertainty
Pick the most uncertain feature

Identify risks & unknowns

Execute spikes to reduce uncertainty

Implement with boring code
Pick the most uncertain feature

Identify risks & unknowns

Execute spikes to reduce uncertainty

Implement with boring code
The Boring Code Discovery Model

Pick the most uncertain feature

Identify risks & unknowns

Execute spikes to reduce uncertainty

Implement with boring code
The Boring Code Discovery Model

Certification Program Coming Soon!
How will we know boring code when we see it?
What even is boring code?
What even is boring code?
What even is boring code?

Enough + Minimal
Shared Technical
Context Concepts
What even is boring code?

Enough Shared Context + Minimal Technical Concepts + Clear Domain Concepts
What even is boring code?

- Enough
- Shared
- Context
- +
- Minimal
- Technical
- Concepts
- +
- Clear
- Domain
- Concepts
- +
- Lots of
- Empathy
An Omakase Rails Project

- Shared Context
- Technical Concepts
- Domain Concepts
- Empathy
A Prime Rails Project

Shared Context

Technical Concepts

Domain Concepts

Empathy
A Node.js Project

Shared Context

Technical Concepts

Domain Concepts

Empathy
A Java Project

Shared Context

Technical Concepts

Domain Concepts

Empathy
An Ember.js Project

Shared Context

Technical Concepts

Domain Concepts

Empathy
What can we start doing tomorrow?
Relax your conception of universally Good Code™
How we evaluate code is subjective and flawed.
How we evaluate code is subjective and flawed.

...so fearing your code sucks is both natural and pointless.
Claiming a Right Way™ may push others away
Seek opportunities to deliberate kindly and respectfully with people who think differently.
Whenever you see the word 'clever', substitute it with 'self-indulgent'.
Whenever you see the word 'clever', substitute it with 'self-indulgent'.

~ Don Norman
Metaphors & memes are powerful but limit your audience to whoever understands them.
When someone doesn't understand your code, assume some responsibility
Kip Thorne, *The Science of Interstellar*:
Some segments of this book may be rough going. That’s the nature of real science. It requires thought. Sometimes deep thought. But thinking can be rewarding. You can just skip the rough parts, or you can struggle to understand. If your struggle is fruitless, then that’s my fault, not yours, and I apologize.
Be Courageous
Be Courageous
Write Boring Code
Be Courageous

Write Boring Code

😊
The end.
The end. Again.
My name is Justin Searls
Please tweet me @searls &
Say hello@testdouble.com
Please say hello if your team could use our team's help 😊
Like everyone, we're hiring!

Just join@testdouble.com
Please find me, whether to chat or to grab a sticker!
My name is Justin Searls
Please tweet me @searls &
Say hello@testdouble.com