September 13
“Programmers Day”

A day to celebrate being a programmer (or working with them)

A day to celebrate being a programmer (or working with them)

```
3.times do
  speaker.call “hip hip”
  audience.respond “hurray!”
end
```

```
3.times do
  speaker.call “hip hip”
  audience.respond “hurray!”
end
```

Agenda

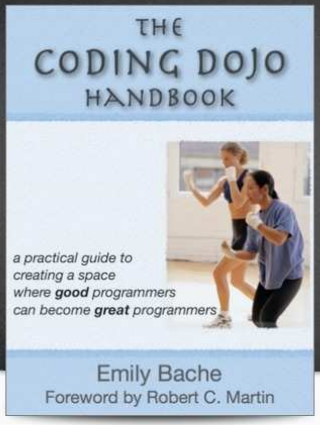
- What makes programmers valuable?
- Some concerns about the profession
- Hints of new directions

So who's this guy on stage?

Laurent Bossavit
Twitter:@Morendil

Programmer. Geek, since forever.

https://leanpub.com/codingdojohandbook



The Coding Dojo Handbook

a practical guide to creating a space where good programmers can become great programmers

440 READERS

by Emily Bache

Includes three convenient formats

- **PDF** *(for Mac or PC)*
- **EPUB** *(for iPad, iPhone, and other ebook readers)*
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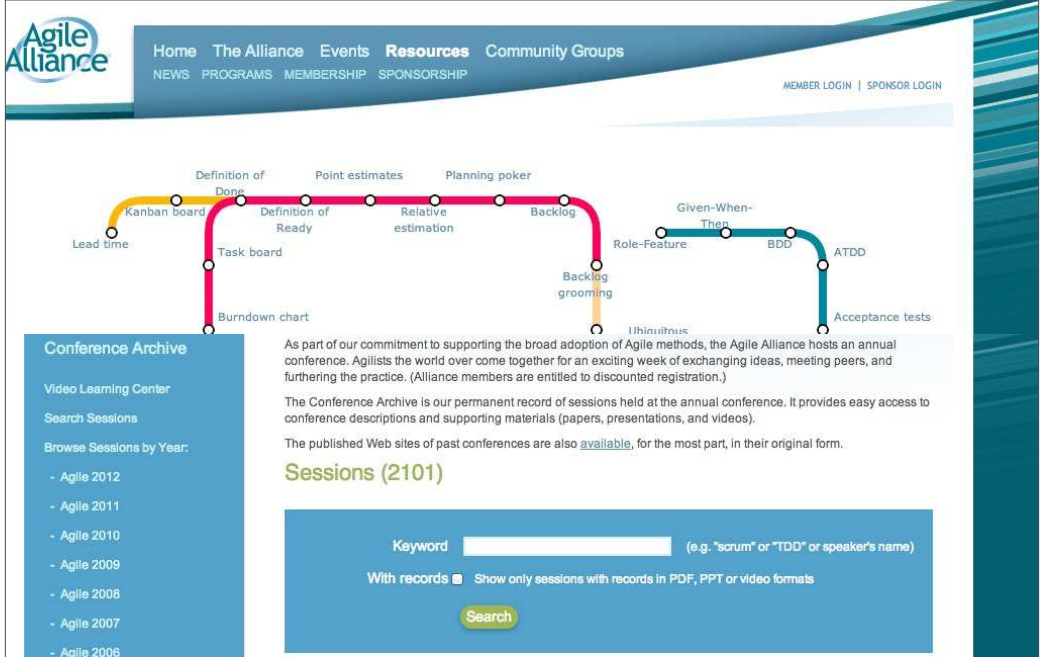
Minimum: $15.00
Suggested: $20.00+
100% HAPPINESS GUARANTEE

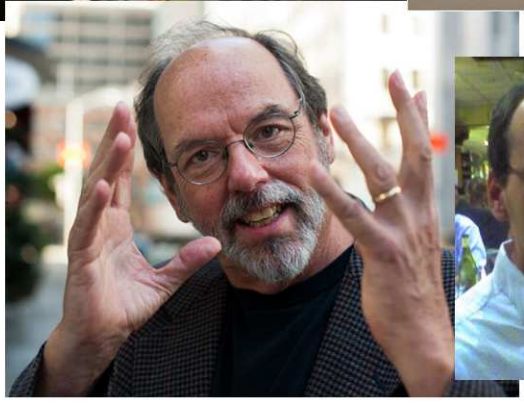
Co-inventor, Coding Dojo

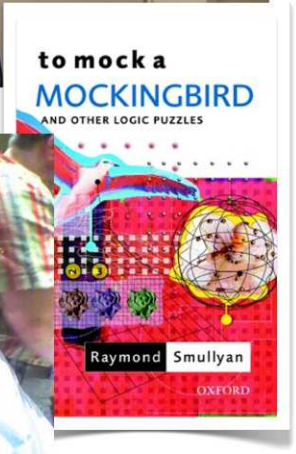
Agile Coach (hate the title, still code)



Coding for the Agile Alliance

Some of my favorite programmers




to mock a
MOCKINGBIRD
AND OTHER LOGIC PUZZLES
Raymond Smullyan
OXFORD

So, programmers are cool...

...but...

aeon

Are coders worth it?

In today's world, web developers have it all: money, perks, freedom, respect. But is there value in what we do?

by James Somers 3,600 words Read later or Kindle

What programmers are "worth it"?

Rock stars?

Ninjas?

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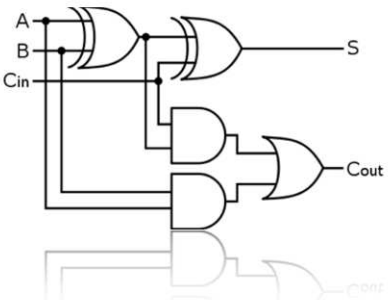
(Certified) Agile devs?

Sorry, are we “software engineers”?

Software
Engineering

Software engineering



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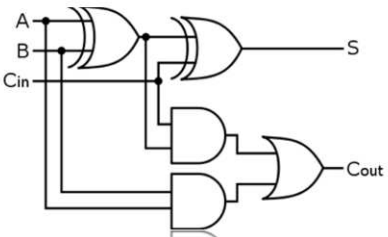
As originally conceived

Software engineering



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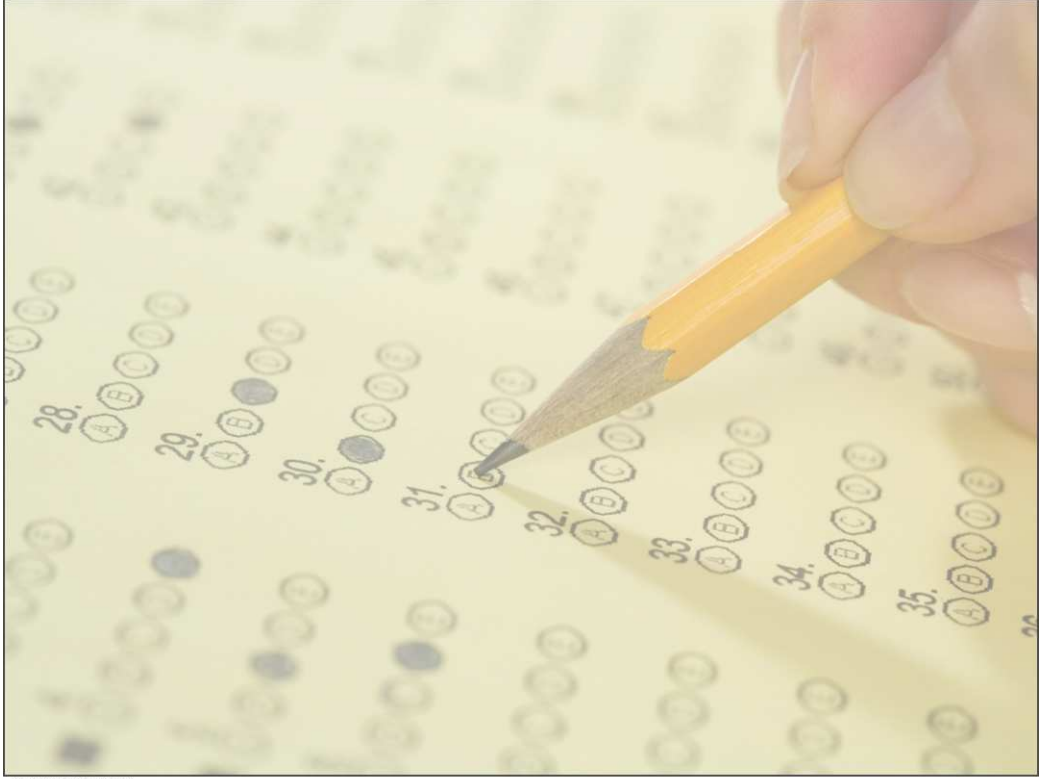
As realized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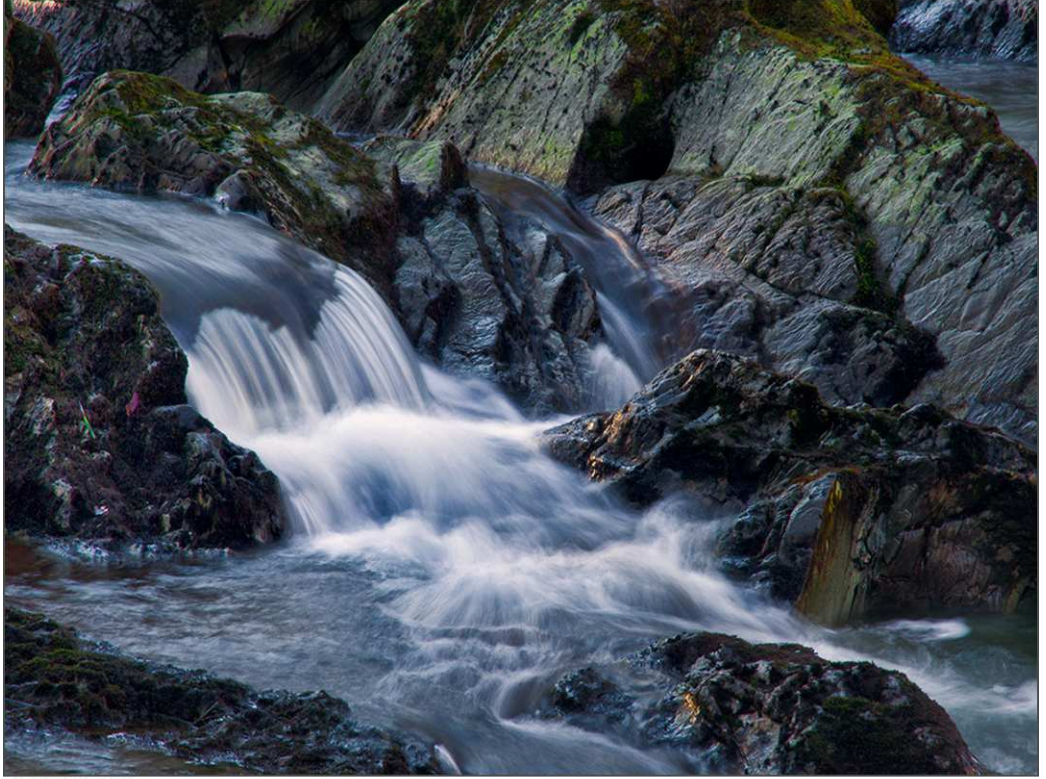
Topics covered:

- Requirements
- Design
- Construction
- Testing
- Maintenance
- Configuration Management
- Engineering Processes
- Quality Assurance
- Safety, Security and Privacy



(From Boehm, 1976)

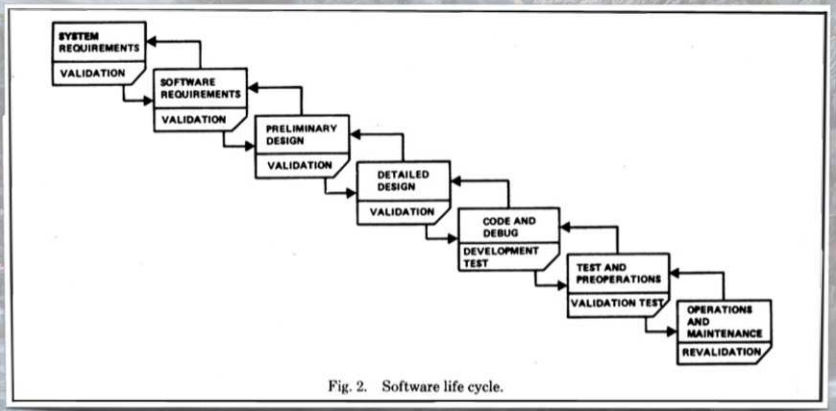
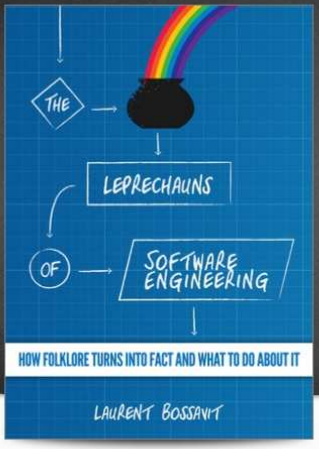


Fig. 2. Software life cycle.

"While TDD is of great interest to the
software engineering community,
it seems to be a topic that is too close to
industrial practice to be
of interest to a research conference."

-- Anonymous reviewer rejecting proposal
for a workshop on TDD at ICSE

https://leanpub.com/leprechauns



The Leprechauns of Software Engineering

How folklore turns into fact and what to do about it

1152 READERS

by Laurent Bossavit

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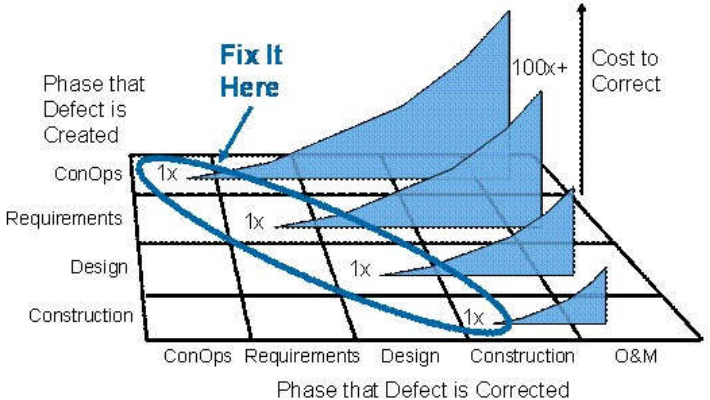
Riddled with myths (“leprechauns”)



Relative cost to fix errors:
U.S. Fed.Hwy. (2007), after McConnell

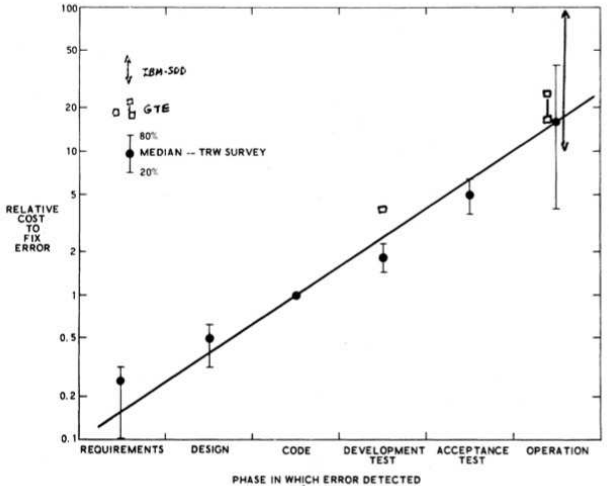


Fig. 3. Software validation: the price of procrastination.

Relative cost to fix errors: Boehm (1976)

What did the data actually say?

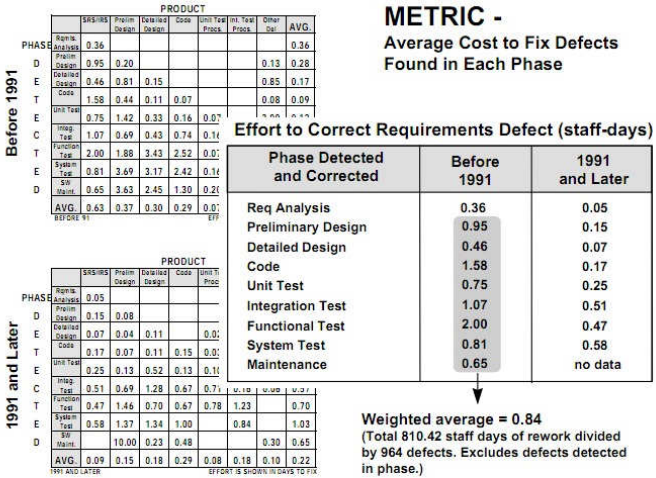
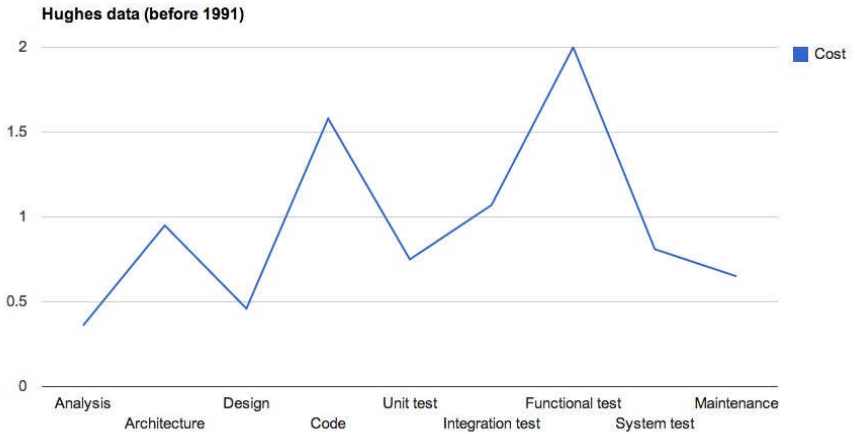


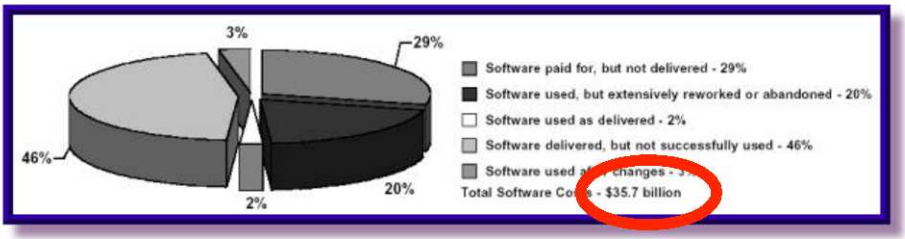
Figure 25 Analysis of Quality Indicator data resulted in requirements review efficiency improvements that reduced overall effort.

Hughes Aircraft (1998)



Hughes Aircraft (1998)

Agile Leprechauns



$35.7 billion - 75% waste
(DoD projects)

"Requirements Risks Can
Drown Software Projects"
(Leishman, 2002)

"A 1999 review of failure rates in a sample of earlier DoD projects drew grave conclusions: Of a total $37 billion for the sample set, 75% of the projects failed or were never used, and only 2% were used without extensive modification."
-- C. Larman, 2003

Also cited by Benefield, Korhonen, Knoernschild, Gilb, Sutherland, Leitass, Leinonen, Martin (ObjectMentor), etc. (indirect cite via Larman in many cases)

110804

BY THE COMPTROLLER GENERAL

Report To The Congress

OF THE UNITED STATES

Contracting For Computer Software Development--Serious Problems Require Management Attention To Avoid Wasting Additional Millions

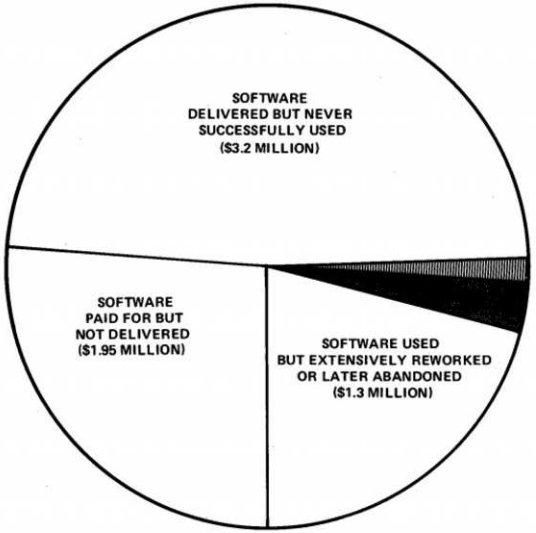
007726/110804

FGMSD-80-4
NOVEMBER 9, 1979

GAO examined nine cases of software development in detail. Eight had problems, but their overall performance cannot be taken as representative--some came to GAO's attention because they were failures. Nevertheless, the cases illustrated many of the same causes of difficulty that GAO's questionnaire respondents had identified.

Figure 5

NINE SOFTWARE DEVELOPMENT CONTRACTS TOTALING $ 6.8 MILLION:
WHERE THE MONEY WENT.



The rise of NoX

- “No documentation”
- NoBugDatabase
- NoSQL
- NoEstimates

Are we doomed?

What's the problem, really?

"A perfectly rational person is one who always has a good reason for what he does. [...] Most of us like to think of ourselves as rational professionals."

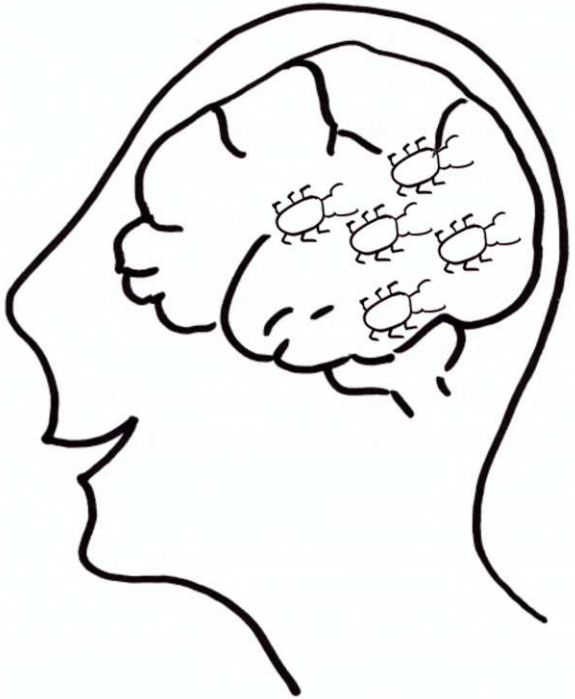
-- Parnas & Clemens, “A rational design process: how and why to fake it”

We are not this guy

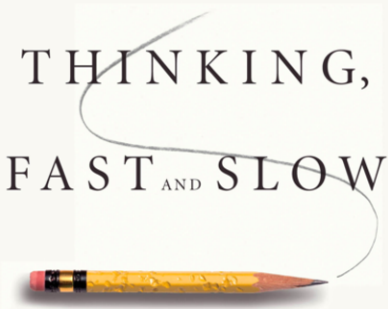
My mistakes
have a
certain logic

It's not what you know.
It's not what you're called.
It's not what you do.

It's how well you think.



THINKING, FAST AND SLOW



DANIEL KAHNEMAN

WINNER OF THE NOBEL PRIZE IN ECONOMICS

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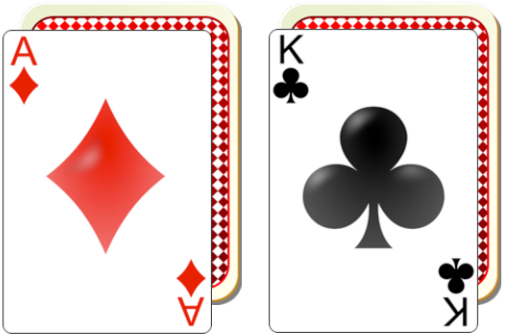
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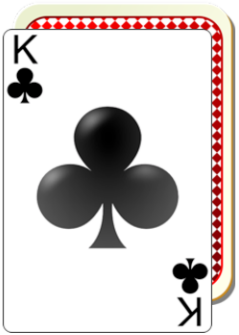
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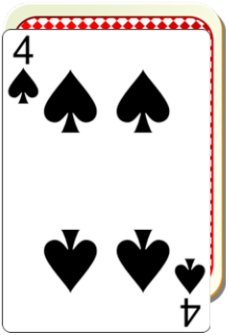
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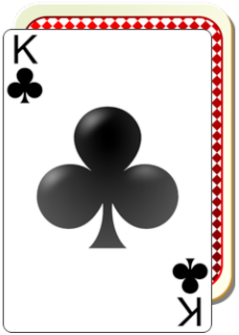
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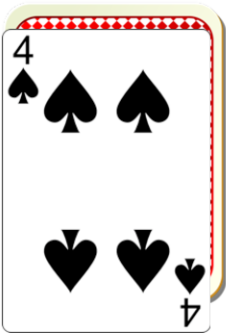
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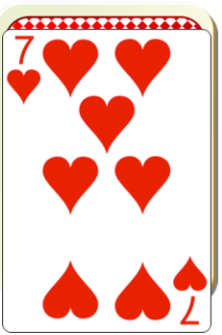
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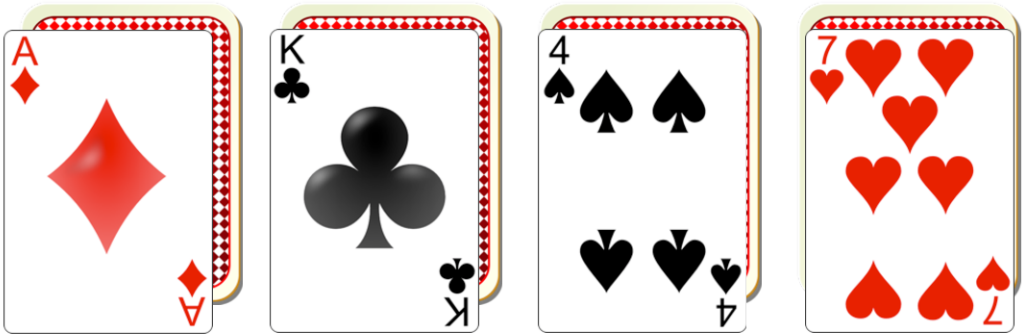

Confirmation bias: Wason test

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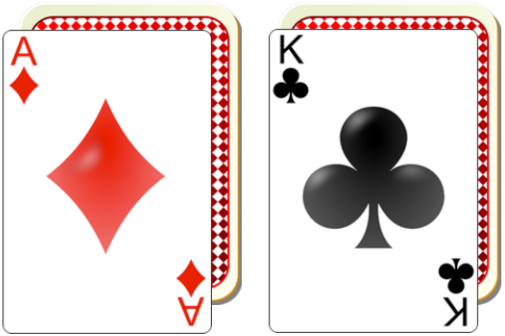
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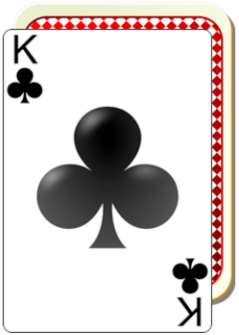
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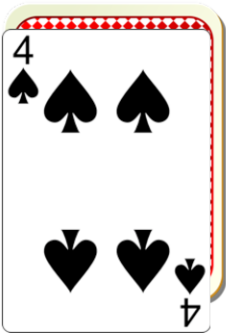
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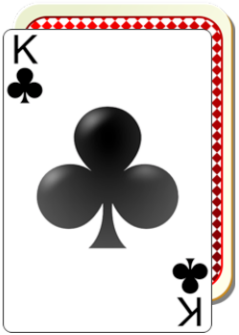
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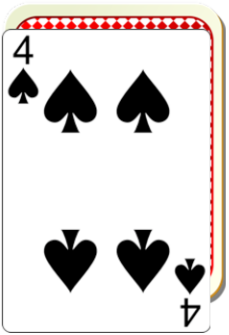
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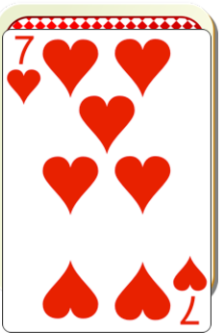
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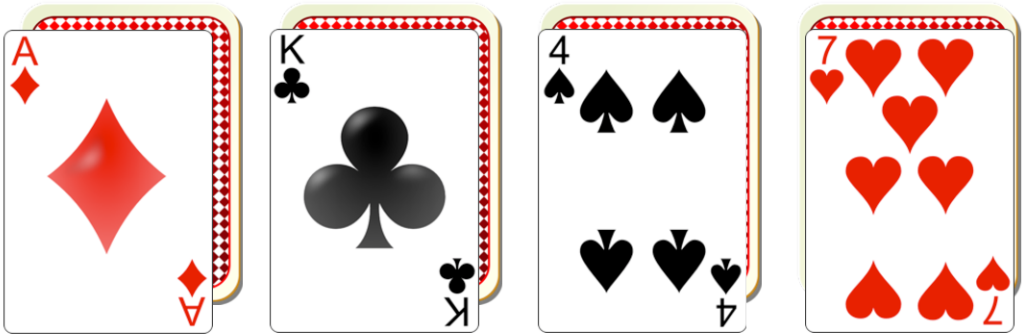
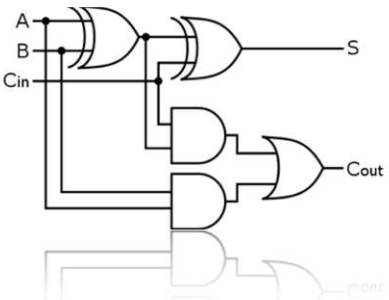


"Vowel on one side =>
even number on the other"

PURE FLAVOURED LAGER
FINEST QUALITY
Chang
CLASSIC
PRODUCT OF
Thailand
THAILAND

Instant improvement

What we need:



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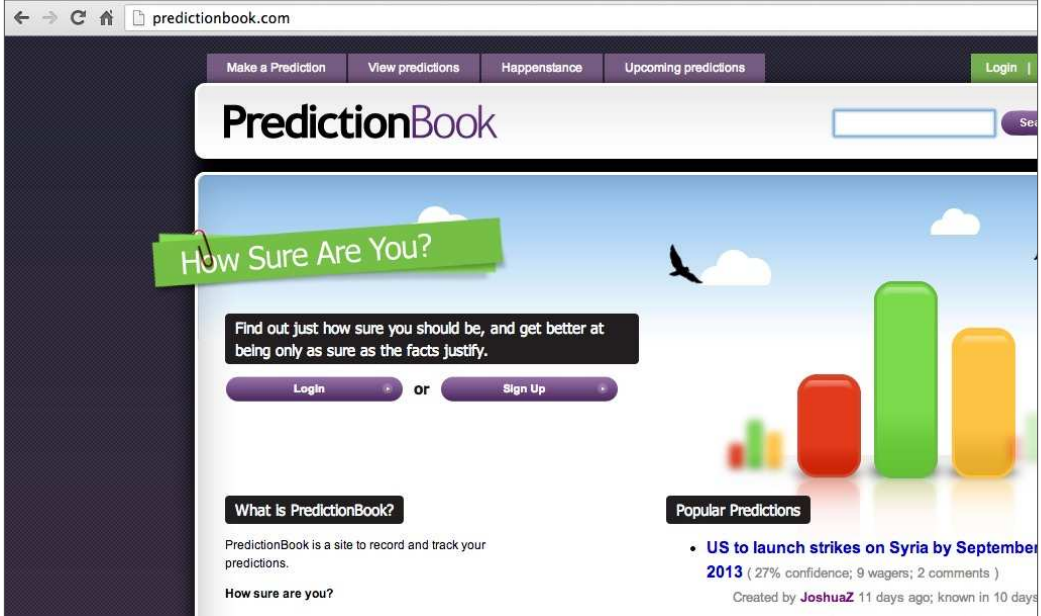
Example

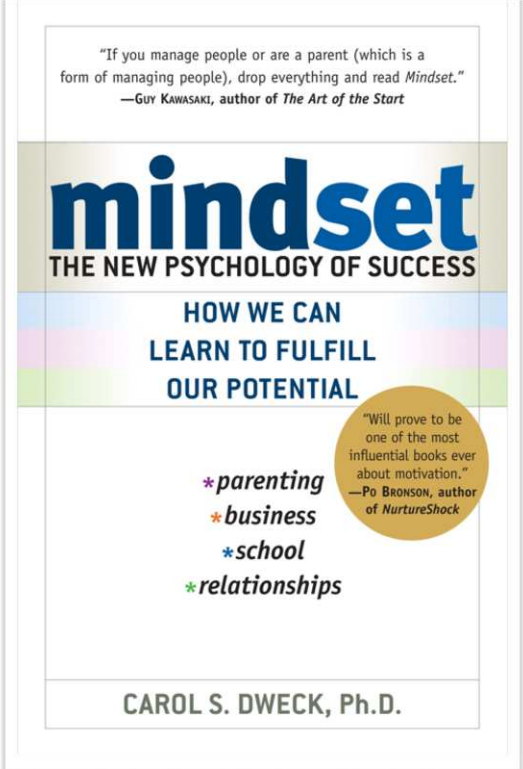
- Bug: we suck at estimating, especially when it comes to future events
- Workarounds: management pressure, schedule games, NoEstimates
- Actual bug fix: "rewire" our intutions about probabilities, by repeated practice



The Art of Being Wrong

“If you are the smartest person in the room, you are in the wrong room”

Coding dojos - keep learning


"If you manage people or are a parent (which is a form of managing people), drop everything and read *Mindset*."
—Guy Kawasaki, author of *The Art of the Start*
mindset
THE NEW PSYCHOLOGY OF SUCCESS
HOW WE CAN LEARN TO FULFILL OUR POTENTIAL
"Will prove to be one of the most influential books ever about motivation."
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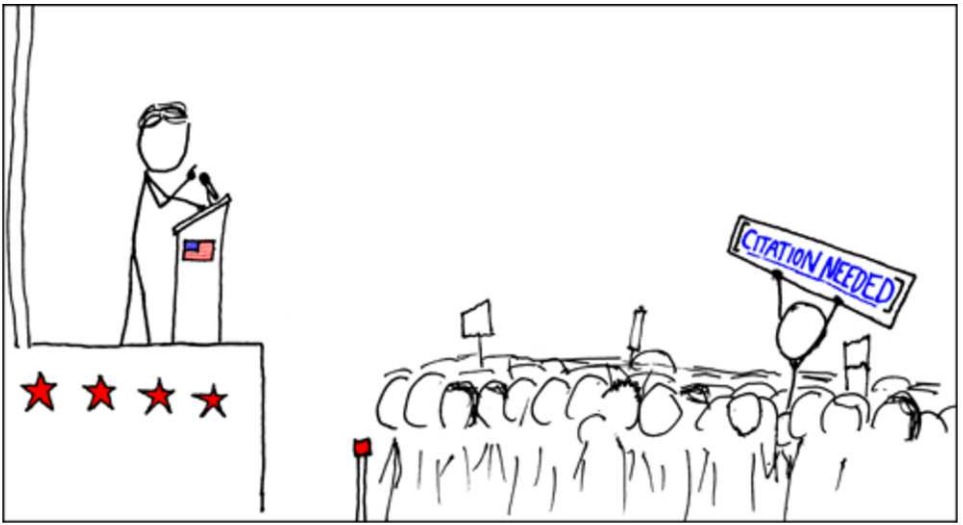
*business
*school
*relationships
CAROL S. DWECK, Ph.D.



Skepticism

Curiosity

“We are all in the gutter, but some of us are looking at the stars” -- Oscar Wilde

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