



#NoEstimates
does not mean
“no estimates!”

Seb Rose

Claysnow Limited



Your company
NEEDS
that estimate

<http://claysnow.co.uk>





You won't
notice we're there

We don't make
mistakes like other
builders

I'll be back
tomorrow to finish off

All our previous
customers are
completely satisfied

That will be
fixed before we
leave

You'll be in by
Christmas

Integration
takes hardly any
time

It's working in the
test environment

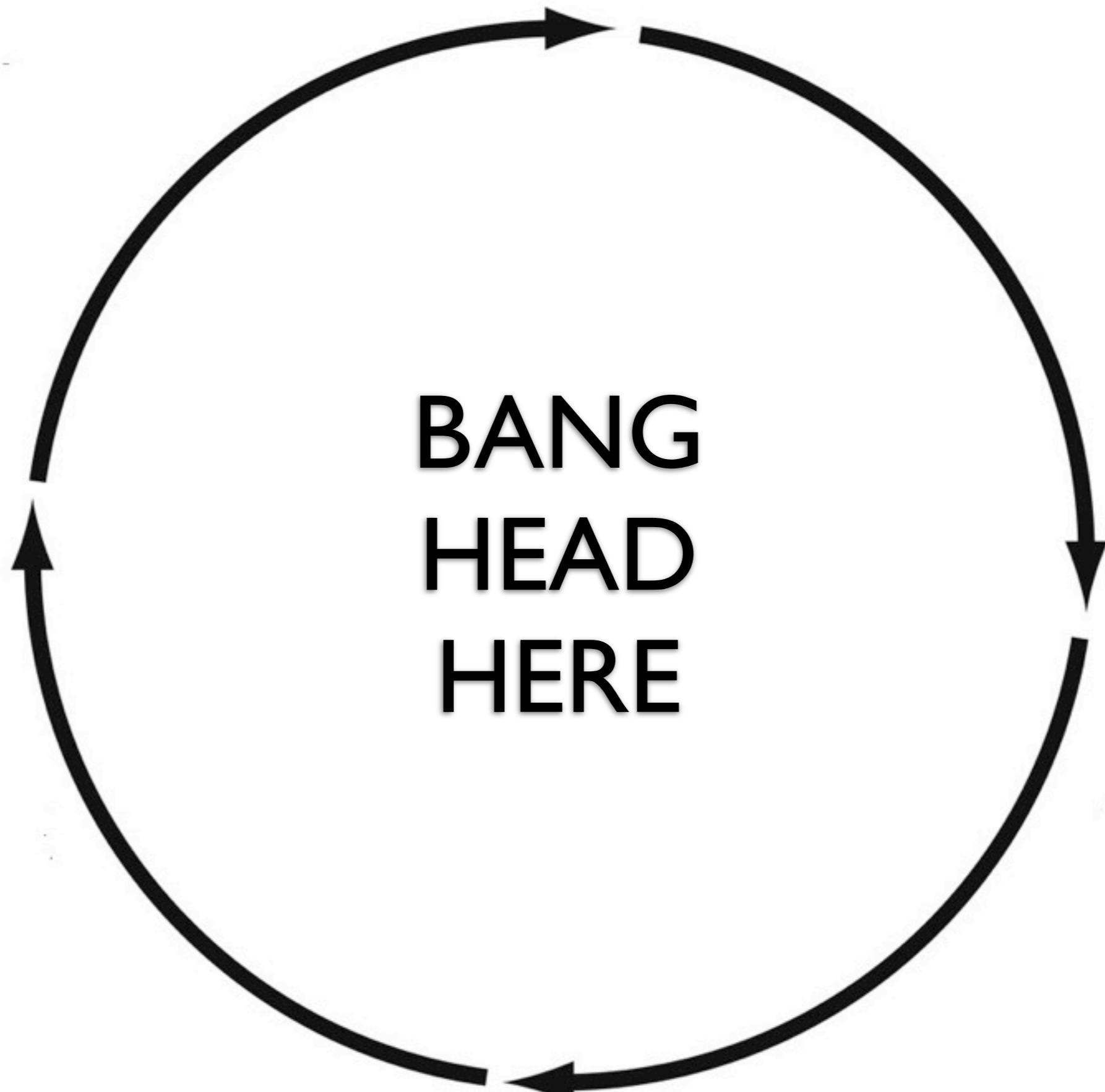
The project status is
still green

On time, on budget
every project

We will deliver
with zero defects

We're 90% done

Observed Cycle



Estimation pathologies

1. *Guarantism*

The belief an estimate is actually correct.

2. *Promisoriality*

The belief that estimates are possible

3. *Swami-itis*

The belief that an estimate is a basis for sound decisions

4. *Craftosis*

The assumption that estimates can be done better

5. *Reality Blindness*

The insistence that estimates are implementable

6. *Accept-ism*

The belief that I have to provide an estimate now

<http://moduscooperandi.com/blog/modus-list-3-our-five-estimate-pathologies/>
<http://neilkillick.com/2015/03/22/a-6th-estimate-pathology/>

“Old fogies know
your estimates will be **bogus**.

They know you
won’t
get them **right**.

They know you
won’t
hit the deadline with
full scope”

<http://xprogramming.com/articles/artifacts-are-not-the-problem/>

So, **why** do we estimate?

- Prediction
- Prioritisation
- Analysis and understanding of requirements
- Blame!

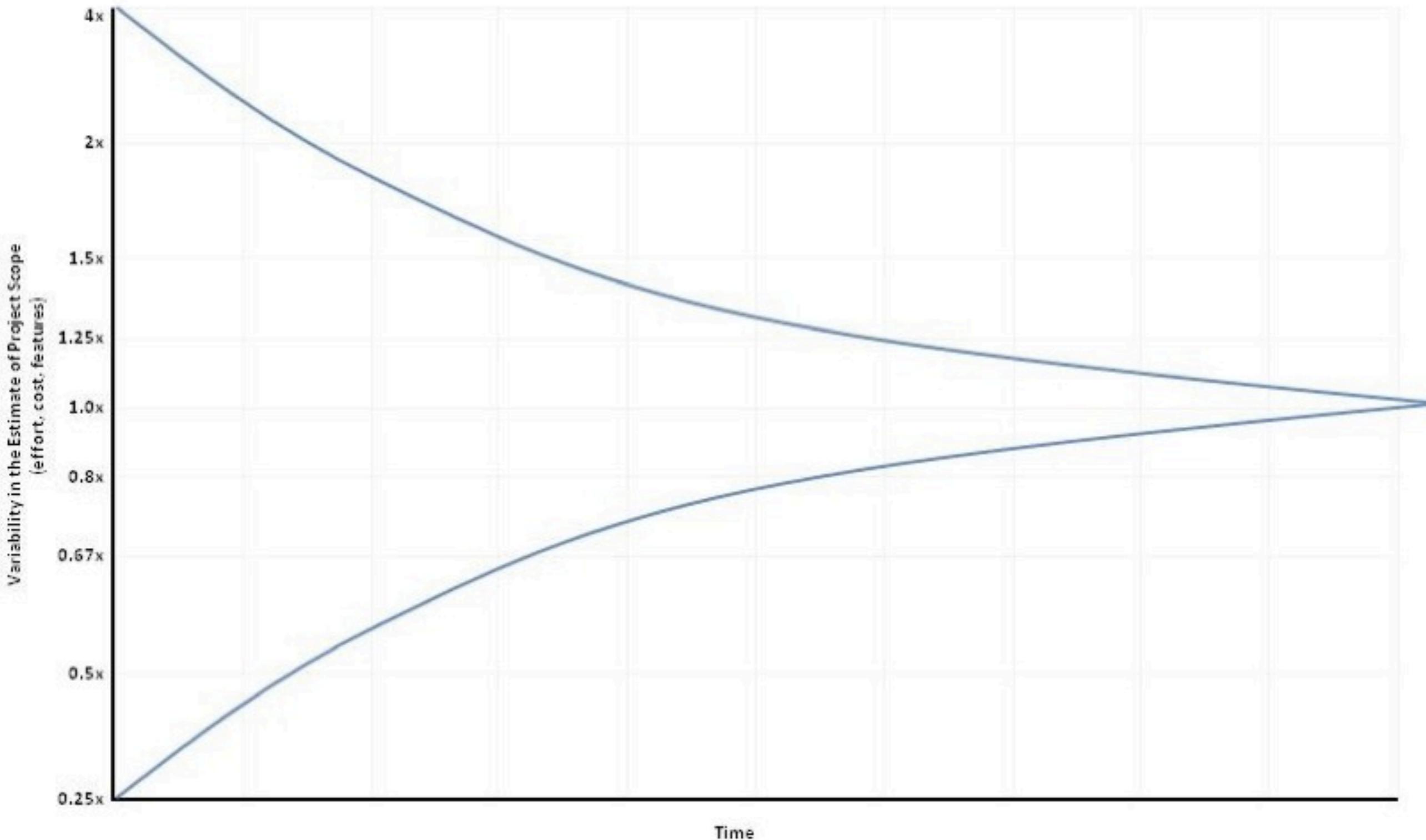
Prediction

*“I try not to get involved in the business
of **prediction**.*

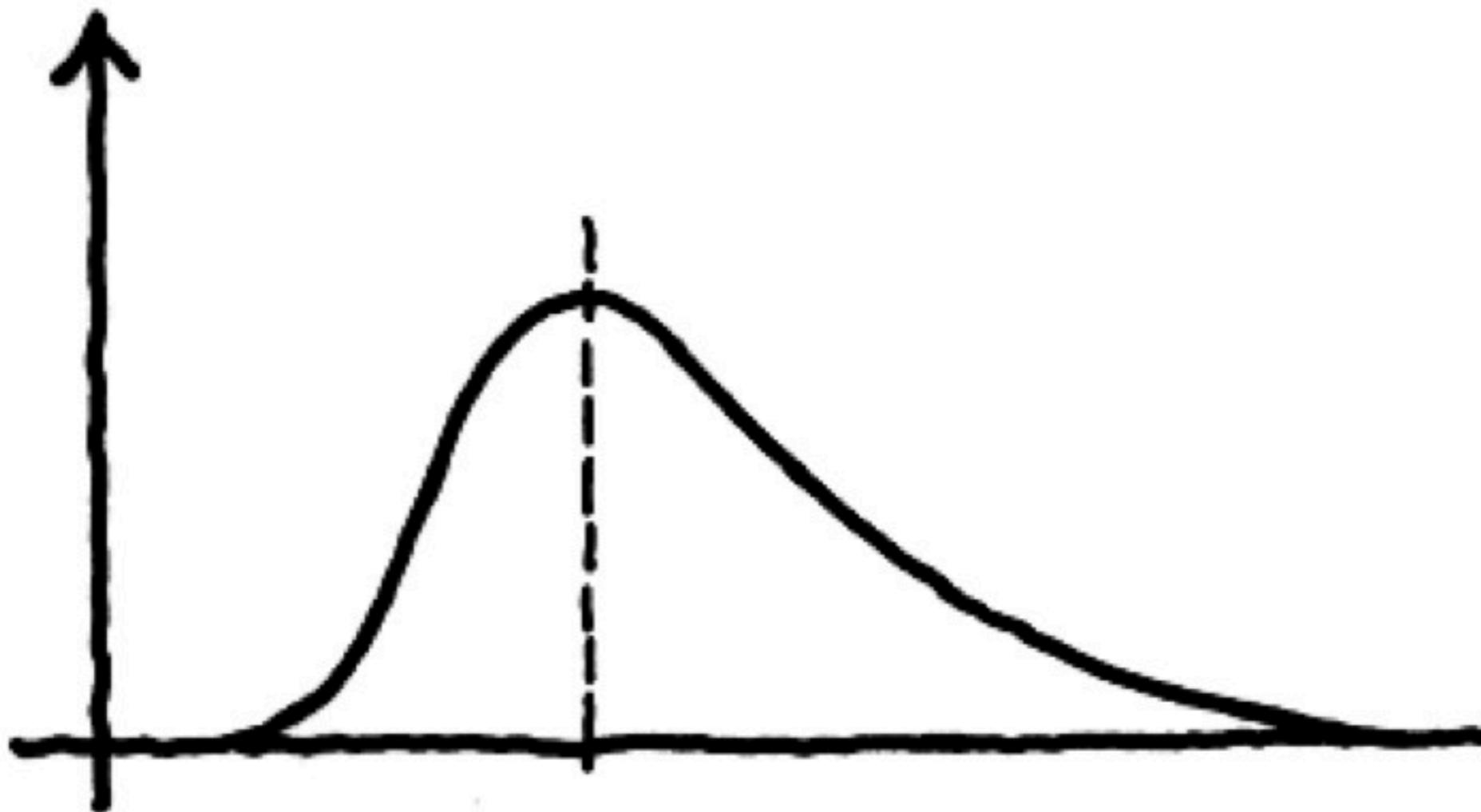
*It's a quick way to look like an **idiot**.”*

Warren Ellis, author & humanist

The Cone of Uncertainty in Project Management



**Relative
Probability**



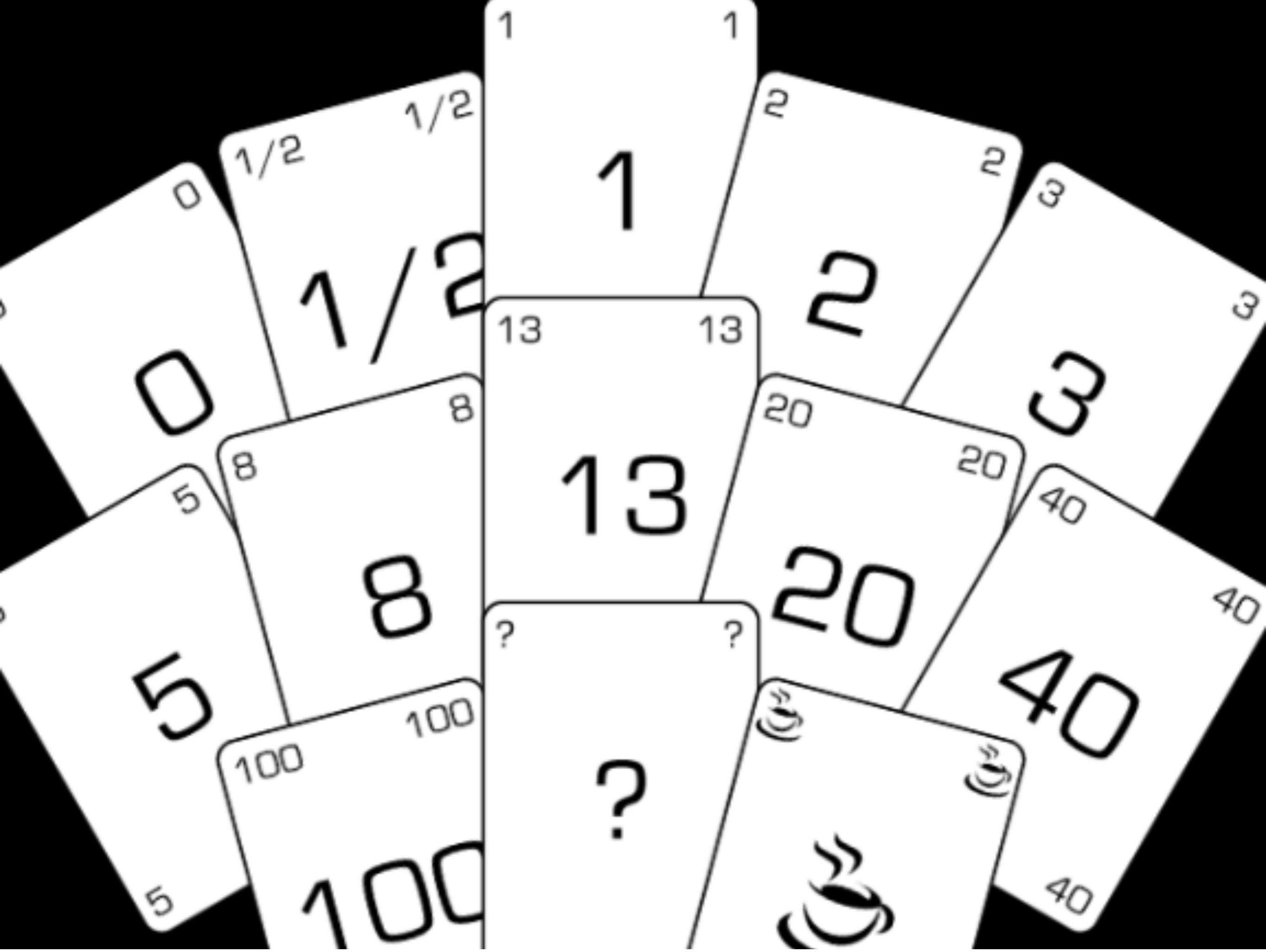
Overconfidence



"We aren't really bad at estimating.

What we are really bad at is
enumerating all the
assumptions that lie behind
our estimates."

-Paul Rook



... these studies which have for a few years now given rise to the claim that "research shows that people are better at relative than absolute estimation" do not in fact seem to square with that claim.

This doesn't entail that relative estimation doesn't work - only that it is not proven.

Why predict?

Release planning

When?

Resource allocation

How much?

Release planning

Naked Planning

In progress

MMFs

Urgent

1.



2.



3.



4.



5.



6.



7.

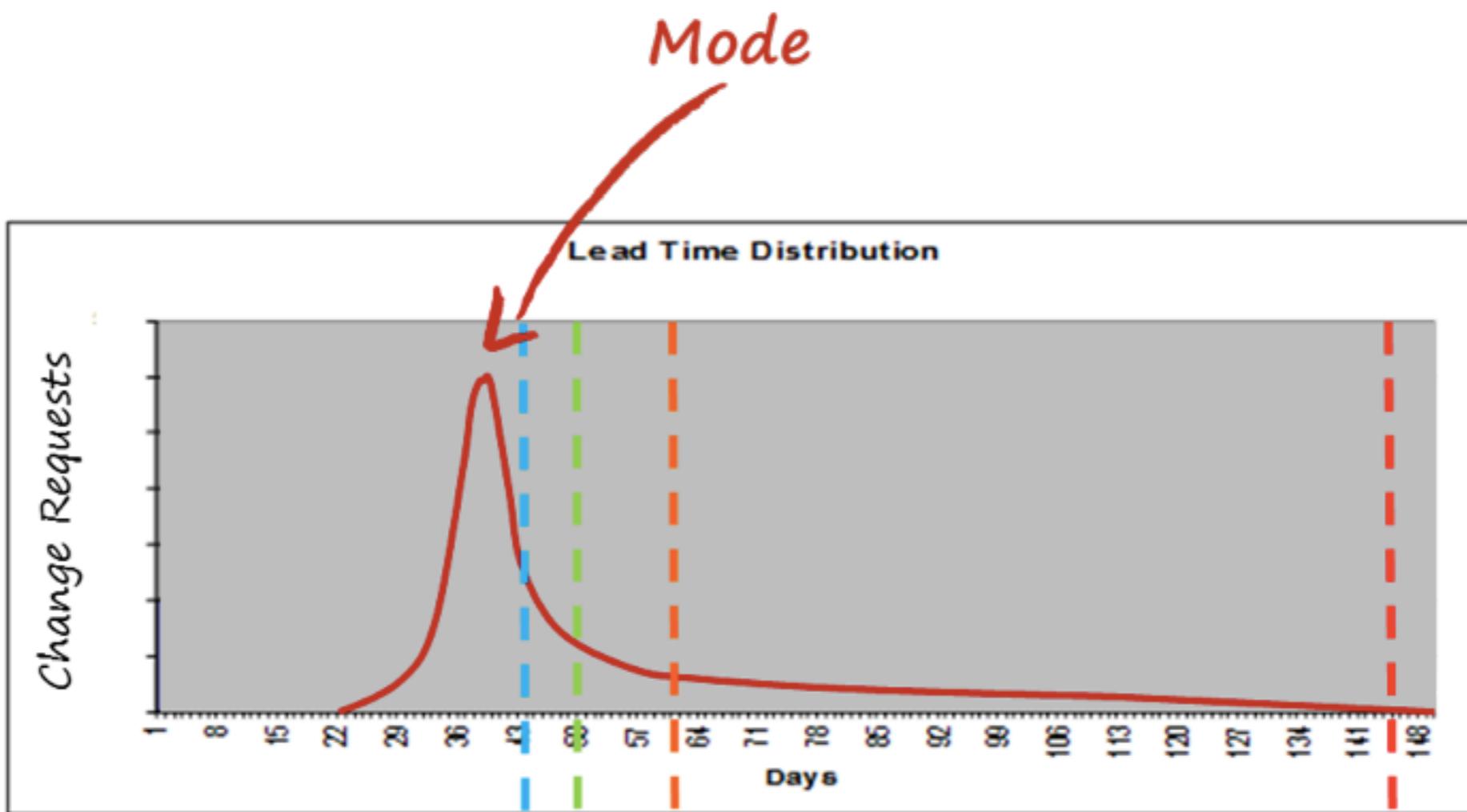


Average delivery
time from here:
?? days



Probabilistic planning

...uses **historical** data or a model of expected capability to build a **forecast** of the project outcome



<http://www.djaa.com/project-management-kanban-part-3-forecasting>

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Little's Law

$$\frac{\text{Delivery Rate}}{\text{WIP}} = \frac{1}{\text{Lead Time}}$$

<http://www.djaa.com/project-management-kanban-part-3-forecasting>

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Resource allocation

If a project is estimated to cost £1 million
how important is it to bring it in on budget
if it will deliver
£200million
of benefit?

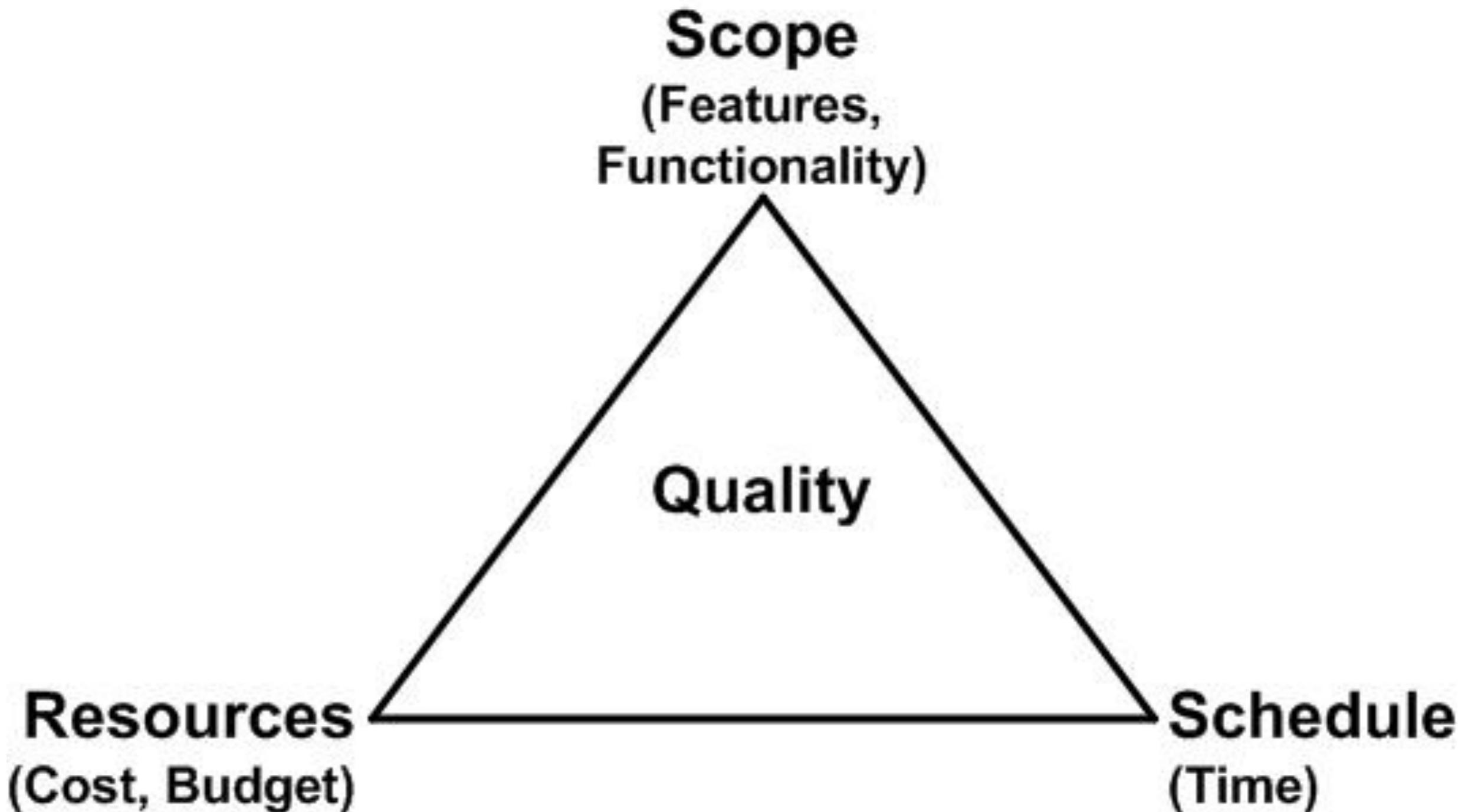
Estimation: A Paradigm Shift Toward Dynamic Design-to-Cost and Radical Management

“Accurate estimation is impossible for complex technical projects, but keeping to agreed budgets and deadlines is achievable by using feedback and change.”

<http://www.gilb.com/dl460>

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<http://www.ambysoft.com/artwork/ironTriangle.jpg>

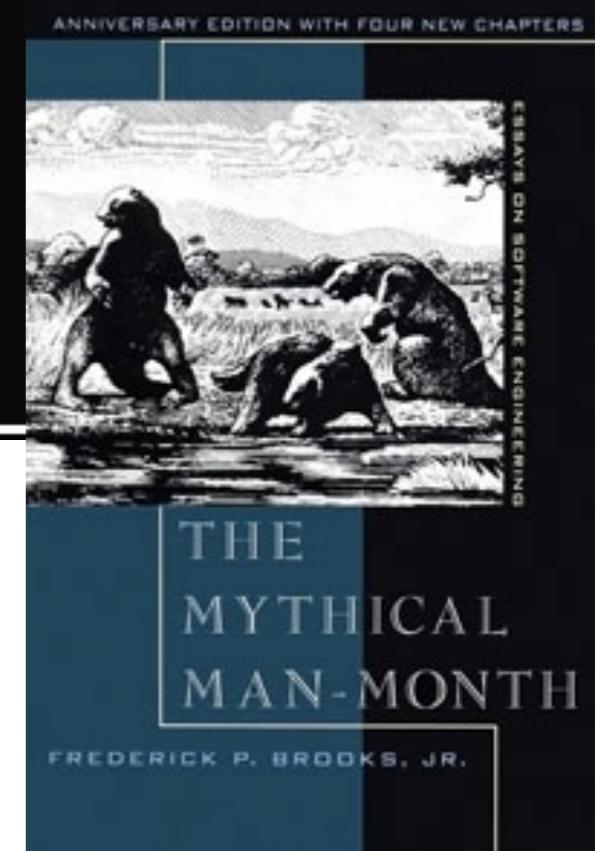
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Brooks's Law: Adding manpower to a late software project makes it later.

(Fred Brooks)



<http://izquotes.com/quotes-pictures/quote-brooks-s-law-adding-manpower-to-a-late-software-project-makes-it-later-fred-brooks-213576.jpg>

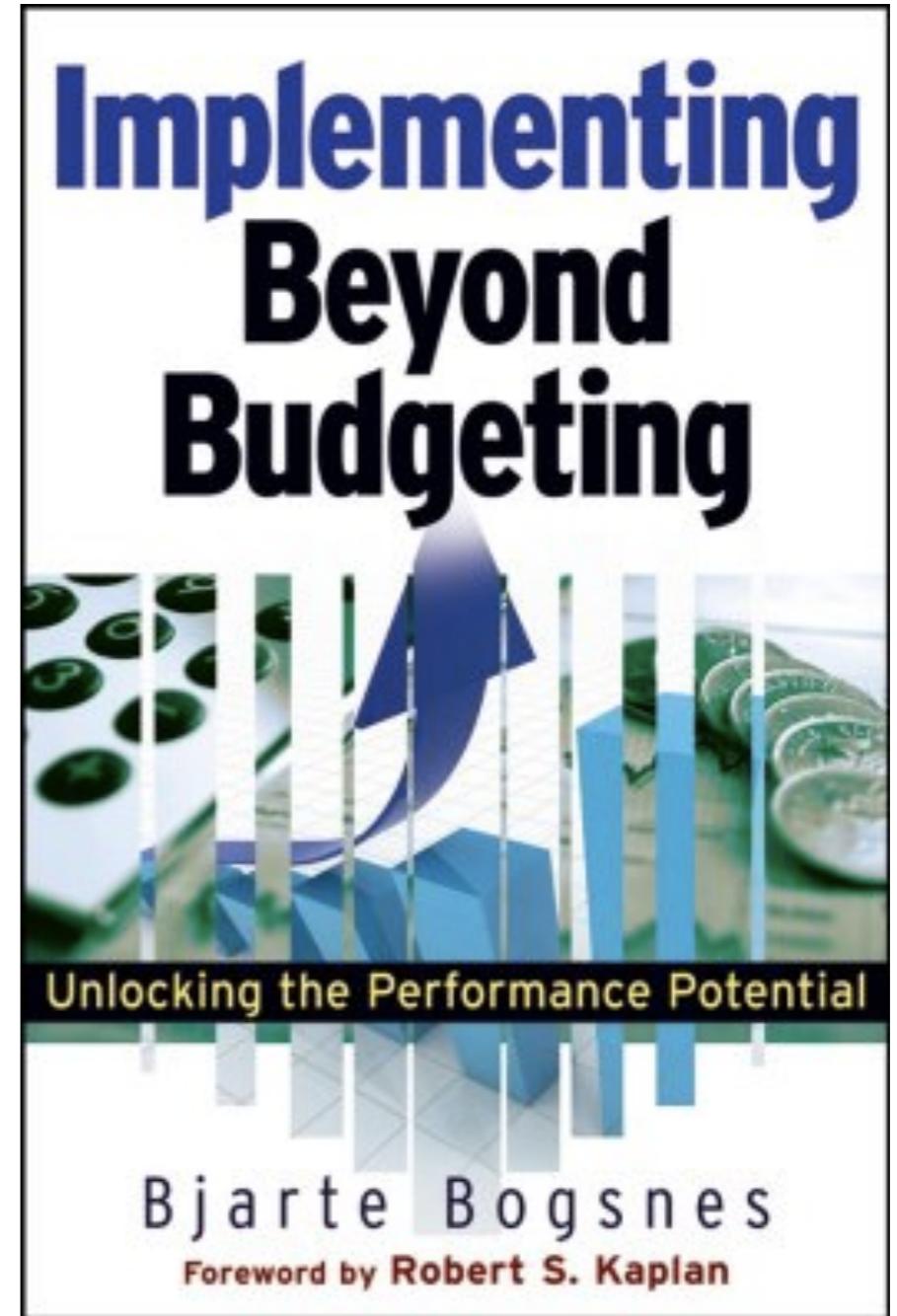
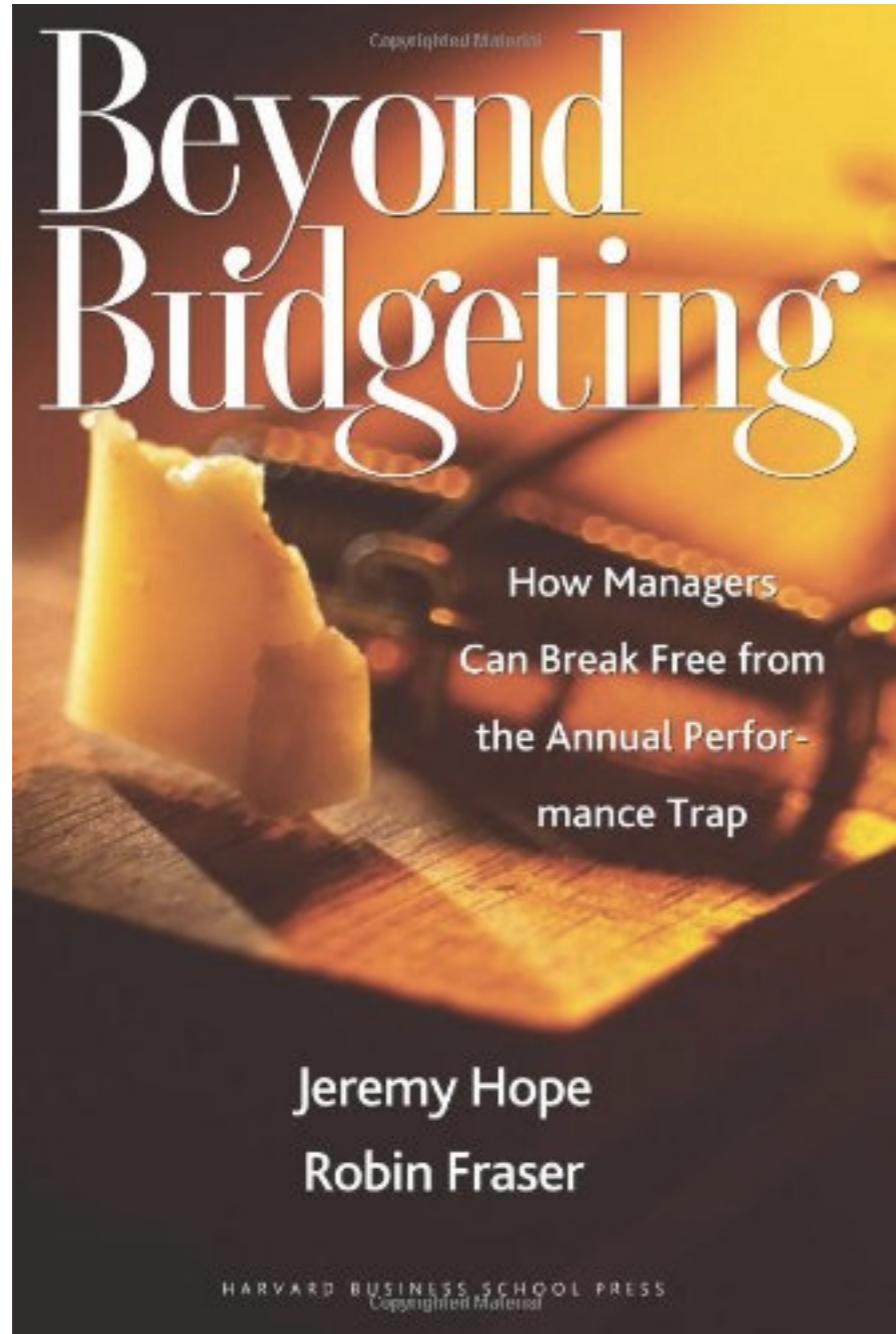
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<http://blog.enspiral.com/wp-content/uploads/2013/02/dilbert.gif>

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12 Beyond Budgeting Principles

Governance and transparency

1. Values

Bind people to a common cause; not a central plan

2. Governance

Govern through shared values and sound judgement;
not detailed rules and regulations

3. Transparency

Make information open and transparent; don't restrict
and control it

12 Beyond Budgeting Principles

Accountable teams

4. Teams

Organize around a seamless network of accountable teams; not centralized functions

5. Trust

Trust teams to regulate their performance; don't micro-manage them

6. Accountability

Base accountability on holistic criteria and peer reviews; not on hierarchical relationships

12 Beyond Budgeting Principles

Goals and rewards

7. Goals

Set ambitious medium-term goals, not short-term fixed targets

8. Rewards

Base rewards on relative performance; not on meeting fixed targets

Planning and controls

9. Planning

Make planning a continuous and inclusive process; not a top-down annual event

10. Coordination

Coordinate interactions dynamically; not through annual budgets

11. Resources

Make resources available just-in-time; not just-in-case

12. Controls

Base controls on fast, frequent feedback; not budget variances

Prioritisation

Why prioritise?

Common anti patterns

- ✓ Focus on managing cost and not value.
- ✓ Prioritize with size as the most important input.



ThoughtWorks®

Estimation:

A Paradigm Shift Toward Dynamic Design-to-Cost and Radical Management

“... rather than trying to improve the initial project estimates, the budgets and deadlines must be set based on the value of delivery (not the cost).”

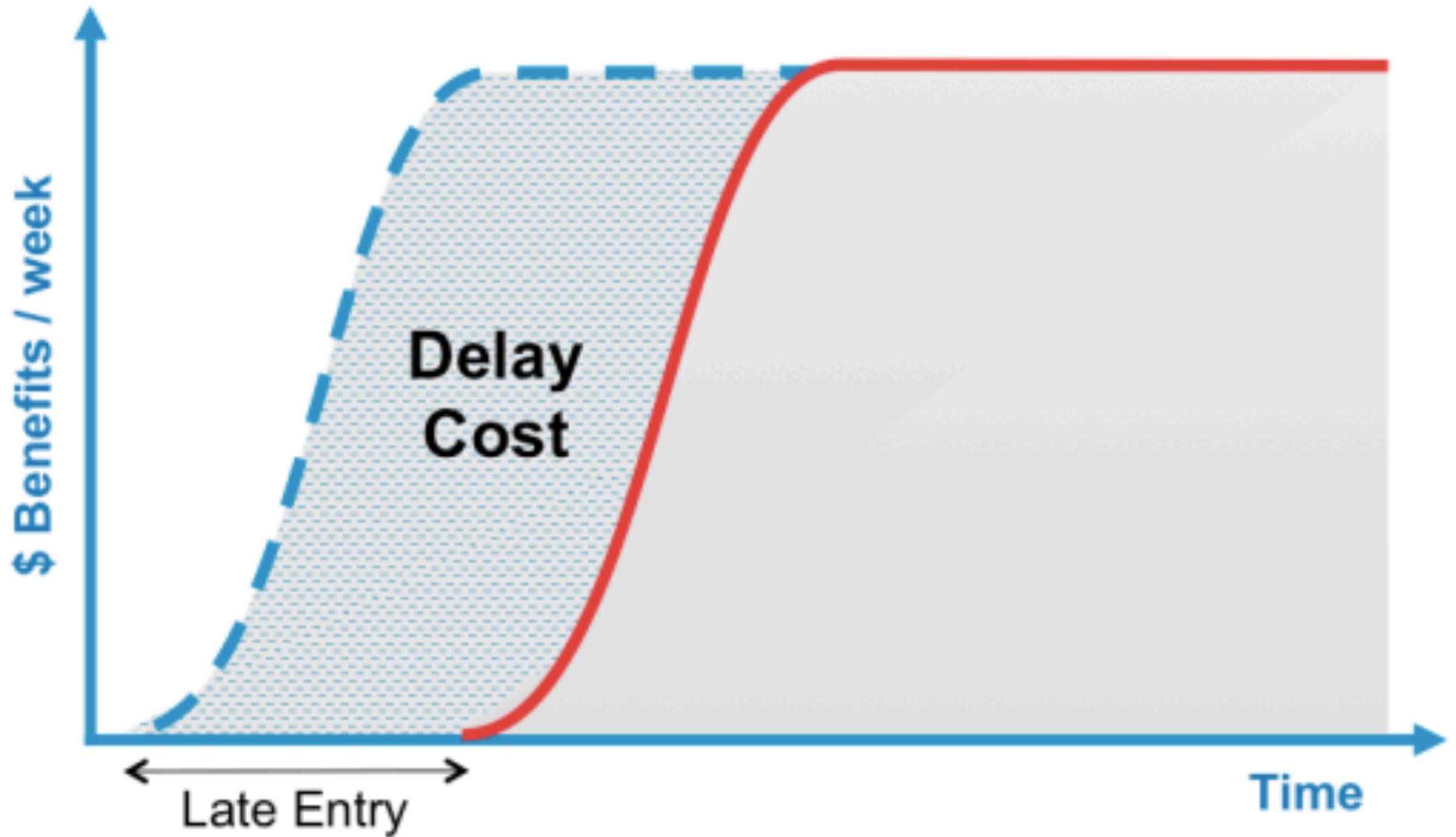
<http://www.gilb.com/dl460>

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Cost of delay

... is a way of communicating the impact of time on **value**.



For ideas with a very long-life, with peak unaffected by delay

Getting started with Cost of Delay:

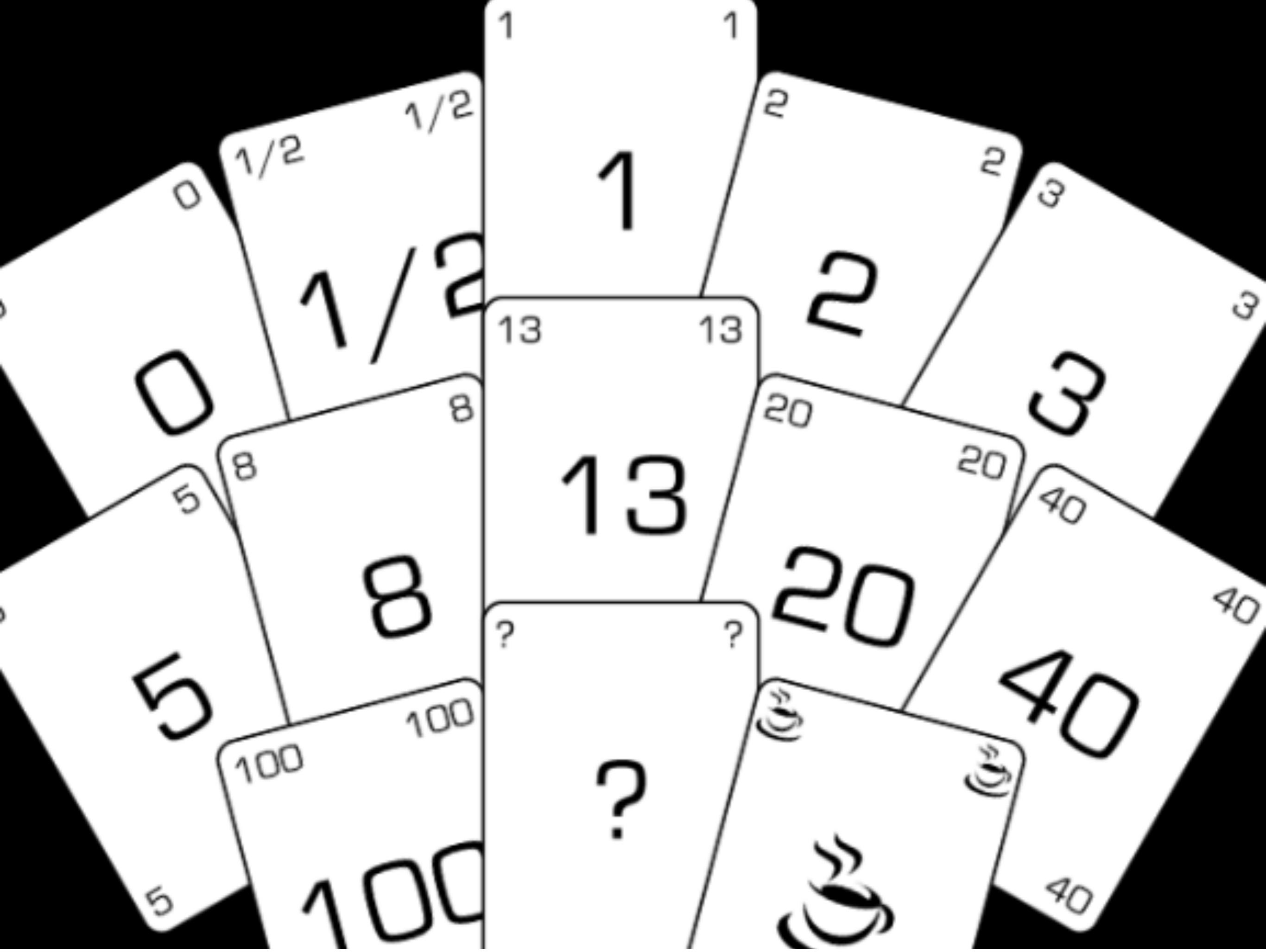
- ① Identify benefit types
- ② Consider urgency
- ③ Estimate peak benefits
- ④ Calculate Cost of Delay

blackswanfarming.com

Cost of delay

1. Better Decision-making – by making the economic trade-offs **visible**
2. Better Prioritisation – by using CD3 (Cost of Delay Divided by Duration) we deliver more **total value**
3. By changing the focus – from efficiency and cost (which encourages the wrong behaviours), to **speed and value**

Analysis



Is it small,
or just far away?



HOW TO SPLIT A USER STORY

1 PREPARE THE INPUT STORY



SIMPLE/COMPLEX

Could you split the story to do that simple core first and enhance it with later stories?

MAJOR EFFORT

Could you group the later stories and defer the decision about which story comes first?

Can you split the story so you do the beginning and end of the workflow first and enhance with stories from the middle of the workflow?

Can you take a thin slice through the workflow first and enhance it with more stories later?

DEFER PERFORMANCE

Could you split the story to just make it work first and then enhance it to satisfy the non-functional requirement?

Does the story get much of its complexity from satisfying non-functional requirements like performance?

Does the story have a simple core that provides most of the value and/or learning?

When you apply the obvious split, is whichever story you do first the most difficult?

Can you split the story to handle data from one interface first and enhance with the others later?

Does the story get the same kind of data via multiple interfaces?

Is there a simple version you could do first?

WORKFLOW STEPS

Does the story describe a workflow?

Does the story include multiple operations? (e.g. is it about "managing" or "configuring" something?)

OPERATIONS

Can you split the operations into separate stories?

BUSINESS RULE VARIATIONS

Can you split the story so you do a subset of the rules first and enhance with additional rules later?

Does the story have a variety of business rules? (e.g. is there a domain term in the story like "flexible dates" that suggests several variations?)

VARIATIONS IN DATA

Can you split the story to process one kind of data first and enhance with the other kinds later?

BREAK OUT A SPIKE

Are you still baffled about how to split the story?

Can you find a small piece you understand well enough to start?

Write that story first, build it, and start again at the top of this process.

3 EVALUATE THE SPLIT

Are the new stories roughly equal in size?

YES

NO

Try another pattern on the original story or the larger post-split stories.

Is each story about 1/2 to 1/4 of your velocity?

Do each of the stories satisfy INVEST?

Are there stories you can deprioritize or delete?

Try another pattern. You probably have waste in each of your stories.

Is there an obvious story to start with that gets you early value, learning, risk mitigation, etc.?

Try another pattern to see if you can get this.

You're done, though you could try another pattern to see if it works better.

2 APPLY THE SPLITTING PATTERNS

INTERFACE VARIATIONS

Does the story have a complex interface?

Does the story do the same thing to different kinds of data?

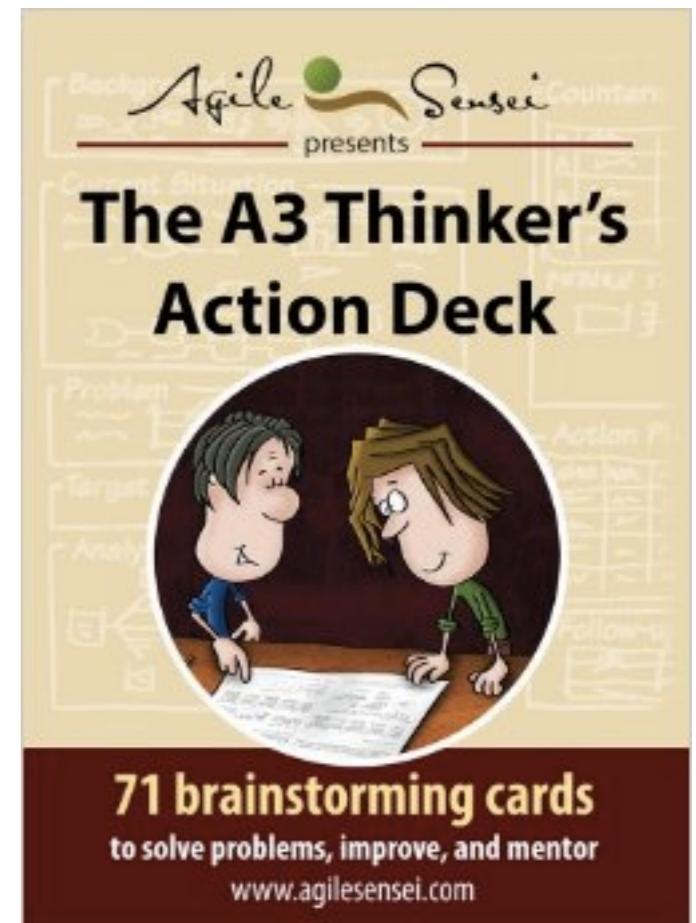
Can you split the story to process one kind of data first and enhance with the other kinds later?

last report

* INVEST - Stories should be:
Independent
Negotiable
Valuable
Estimable
Small
Testable

Toyota's secret

“The A3 Process helps people engage in collaborative, in-depth problem-solving”



<http://www.coe.montana.edu/ie/faculty/sobek/a3/index.htm>

<http://www.amazon.co.uk/The-Thinkers-Action-Deck-Brainstorming/dp/B00CQ9CVBO>

Cracking Big Rocks

“The collection of Cracking Big Rocks cards ask questions and give you suggestions to help you get perspective. They can help you come up with unexpected answers, and choose new avenues to pursue.”





OBLIQUE STRATEGIES

Brian Eno / Peter Schmidt

Faced with a choice, do both

You don't have to be ashamed of using
your own ideas

OBLIQUE STRATEGIES

Over one hundred worthwhile dilemmas

BRIAN ENO and PETER SCHMIDT

First, Revised Edition, Second edition, 2004
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<http://other-ai.org/wp-content/uploads/2011/11/oblique-strategies.jpg>

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<https://estimation.lunarlogic.io/assets/cards-range-8fc41b2e3fd282125f4602a712020204.png>

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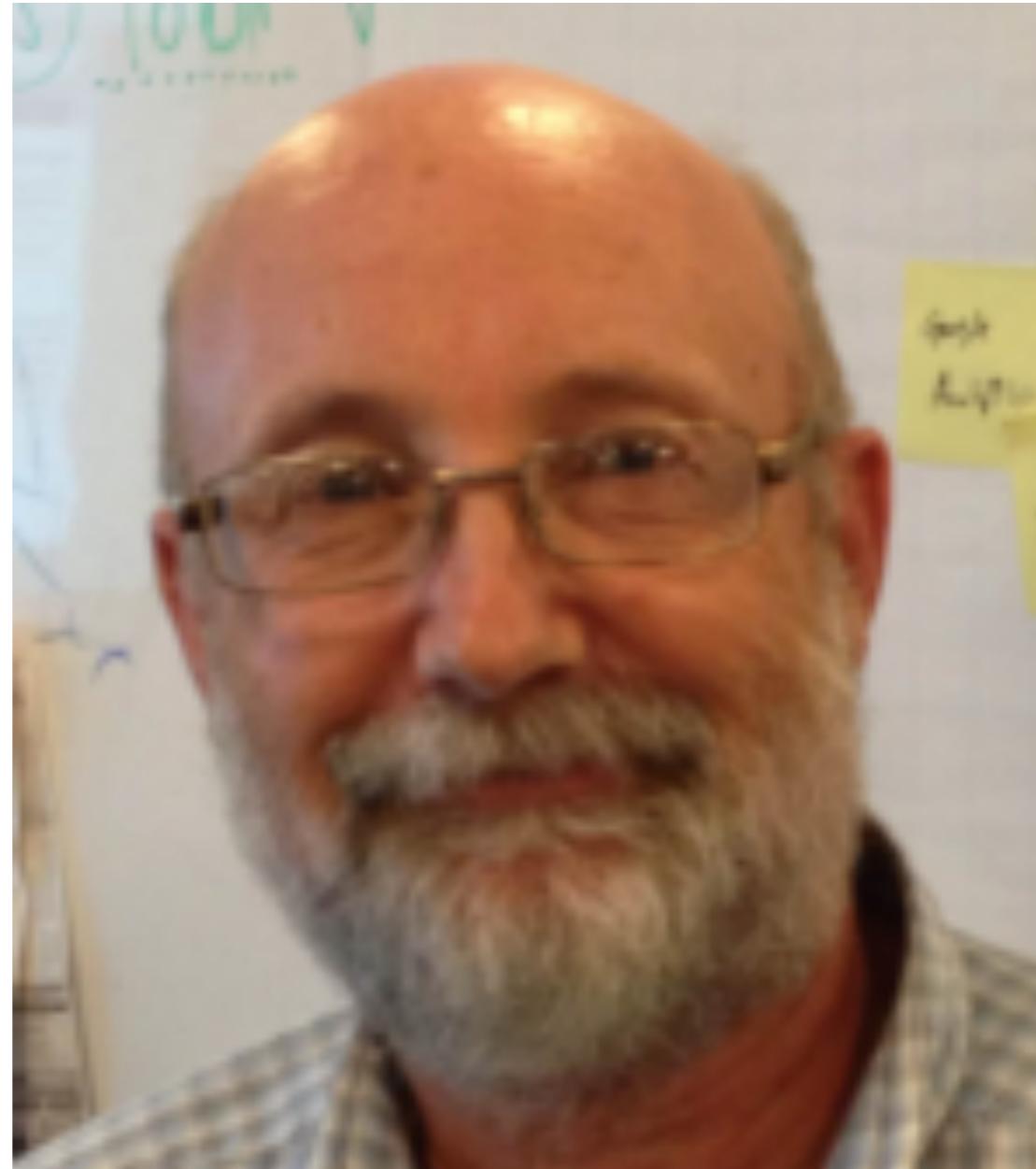
Deliberate discovery

“... during an inception, when we are **most ignorant** about most aspects of the project, the **best** use we can possibly make of the time available is to attempt to **identify** and **reduce** our **ignorance**”

<http://dannorth.net/2010/08/30/introducing-deliberate-discovery/>

#NoEstimates

Woody Zuill



http://www.agileroots.com/wp-content/uploads/2014/06/WoodyZuill_2013-150x168.png

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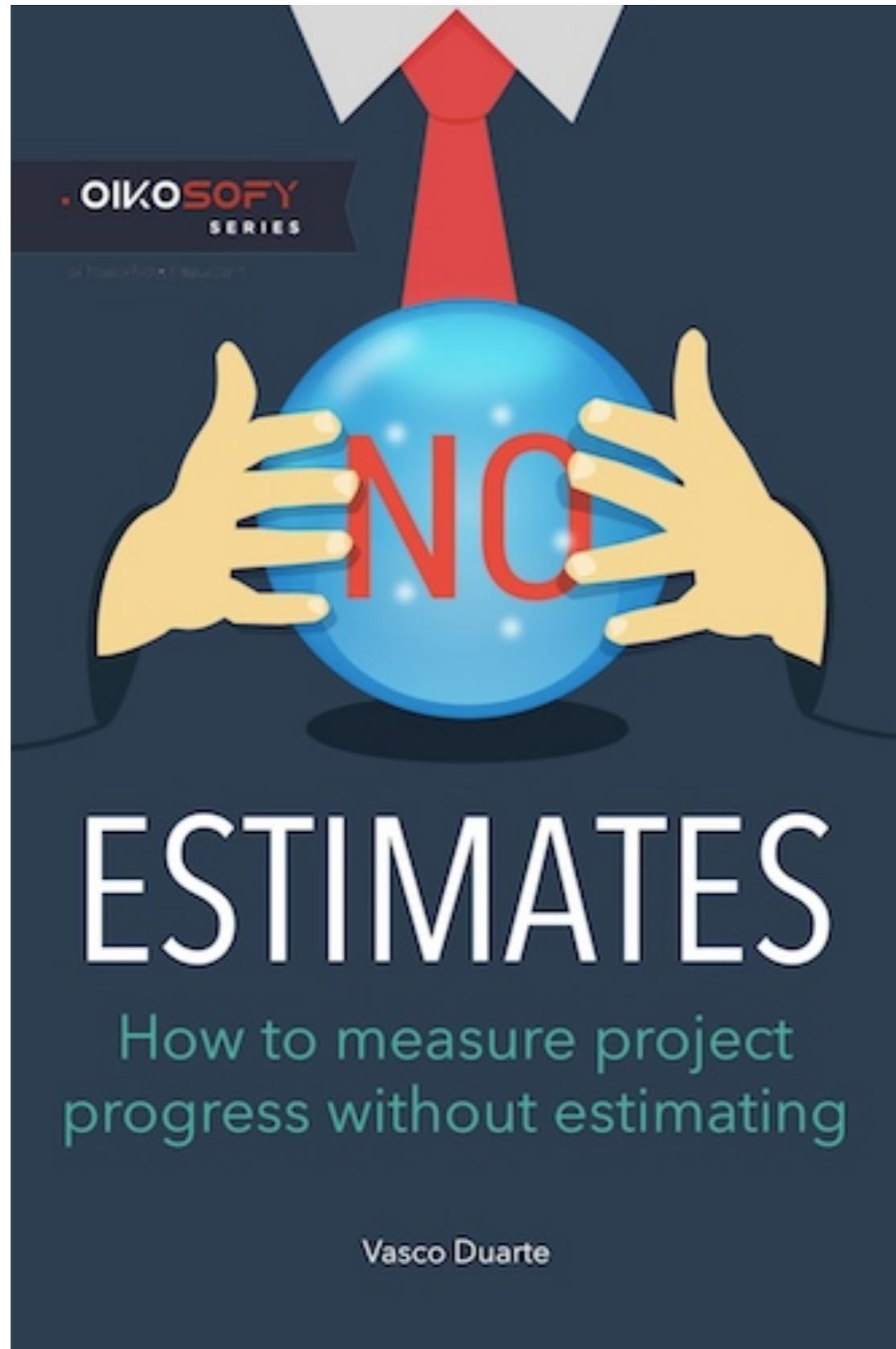
Vasco Duarte



<http://2013.itakeunconf.com/wp-content/uploads/2013/03/vasco-duarte-300x400.jpg>

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Neil Killick



https://media.linkedin.com/mpr/mpr/shrink_200_200/p/7/000/2c4/38d/0ea9e25.jpg

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Glen Alleman



http://pbs.twimg.com/profile_images/1176417752/Headshot_2.jpg

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The idea behind the #NoEstimates approach to software development
isn't to eliminate estimates

[it is] to explore other ways to solve
problems

without specifically asking,

'How long will it take?'

<http://www.cio.com/article/2381167/agile-development/-no-estimates-in-action-5-ways-to-rethink-software-projects.html>

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<http://claysnow.co.uk>

Giving software projects an **API**

... [is] about

“yes, yes, yes”.

<http://xprogramming.com/articles/artifacts-are-not-the-problem/>

Take aways

Challenge the use of estimates

- what are they we trying to achieve?

What's the **value** of the project

- estimates of cost may not be necessary

Is it small or just far away?

- **ignorance** is our major constraint

Finally....

Ask yourself whether the value you get from estimates justifies the cost of producing them.

#**NoEstimates** is the banner under which people who answer “**NO!**” are looking for **better, cheaper** ways of getting the **benefits** that we want, without the **waste** that we don’t.

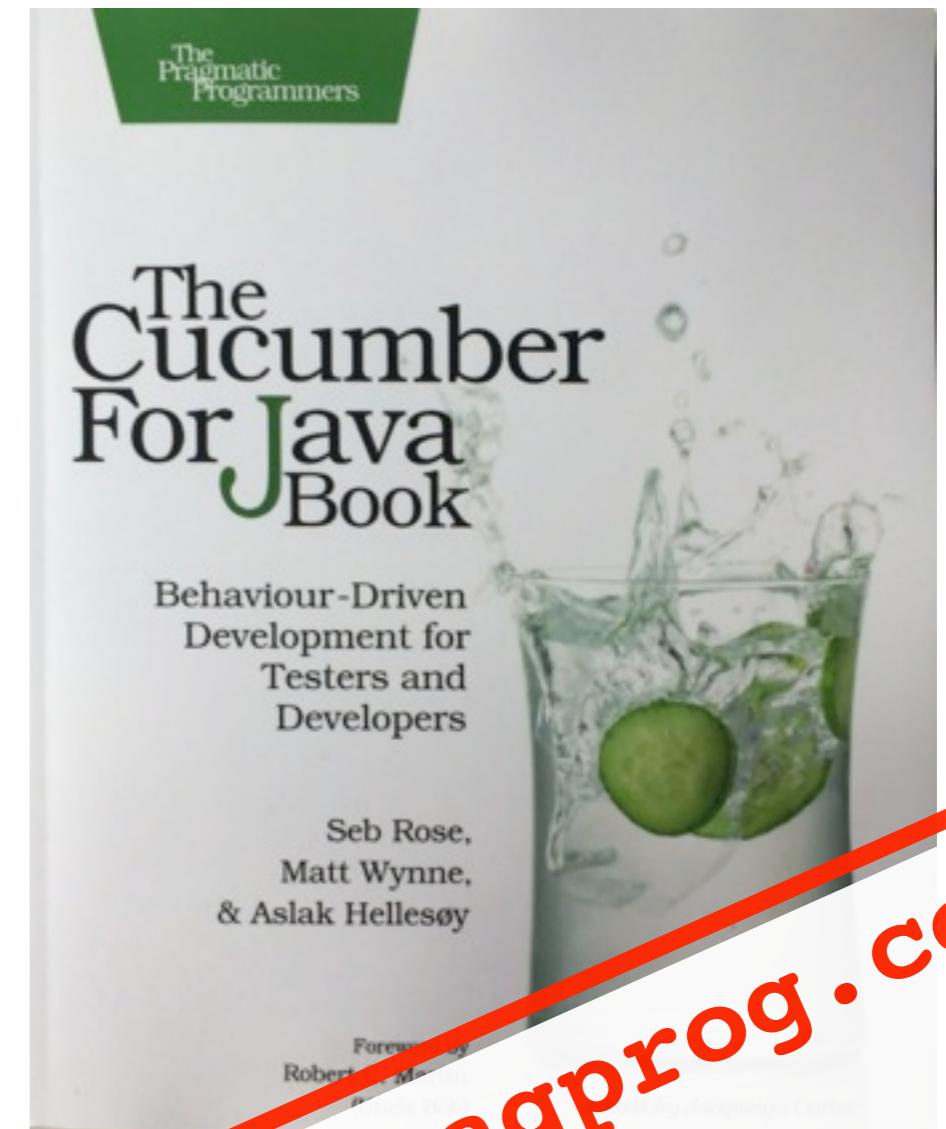


Seb Rose

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