



Why Is My Agile So Fragile?

@KevlinHenney

Process

FRAGILE

FR

How do you feel about agile now?

It's a devastated wasteland. The life has been sucked out of it.

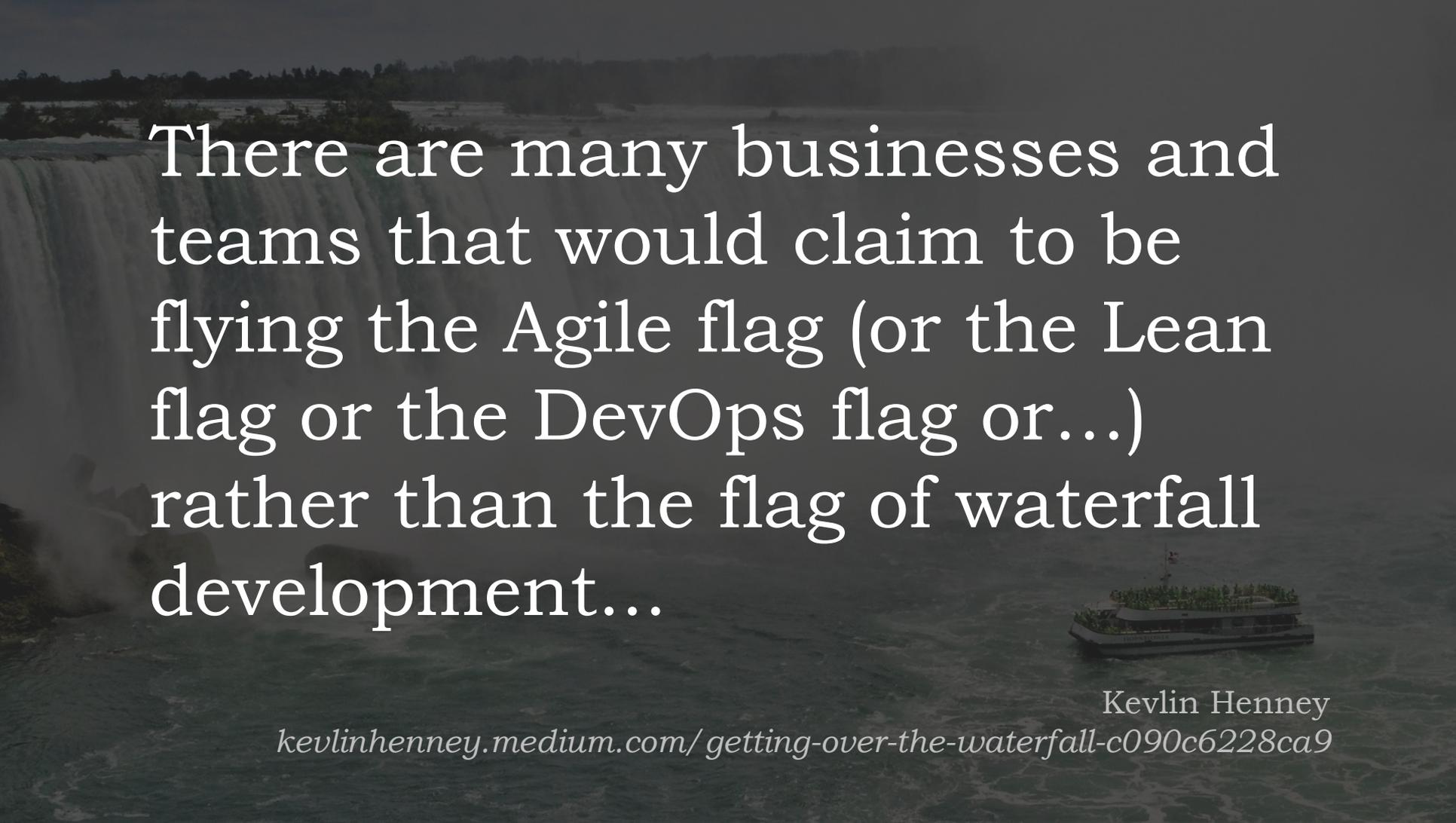
Kent Beck

builtin.com/software-engineering-perspectives/kent-beck-geeks-gusto-globalization

It's a few religious rituals
carried out by people who don't
understand the purpose that
those rituals were intended to
serve in the first place.

Kent Beck

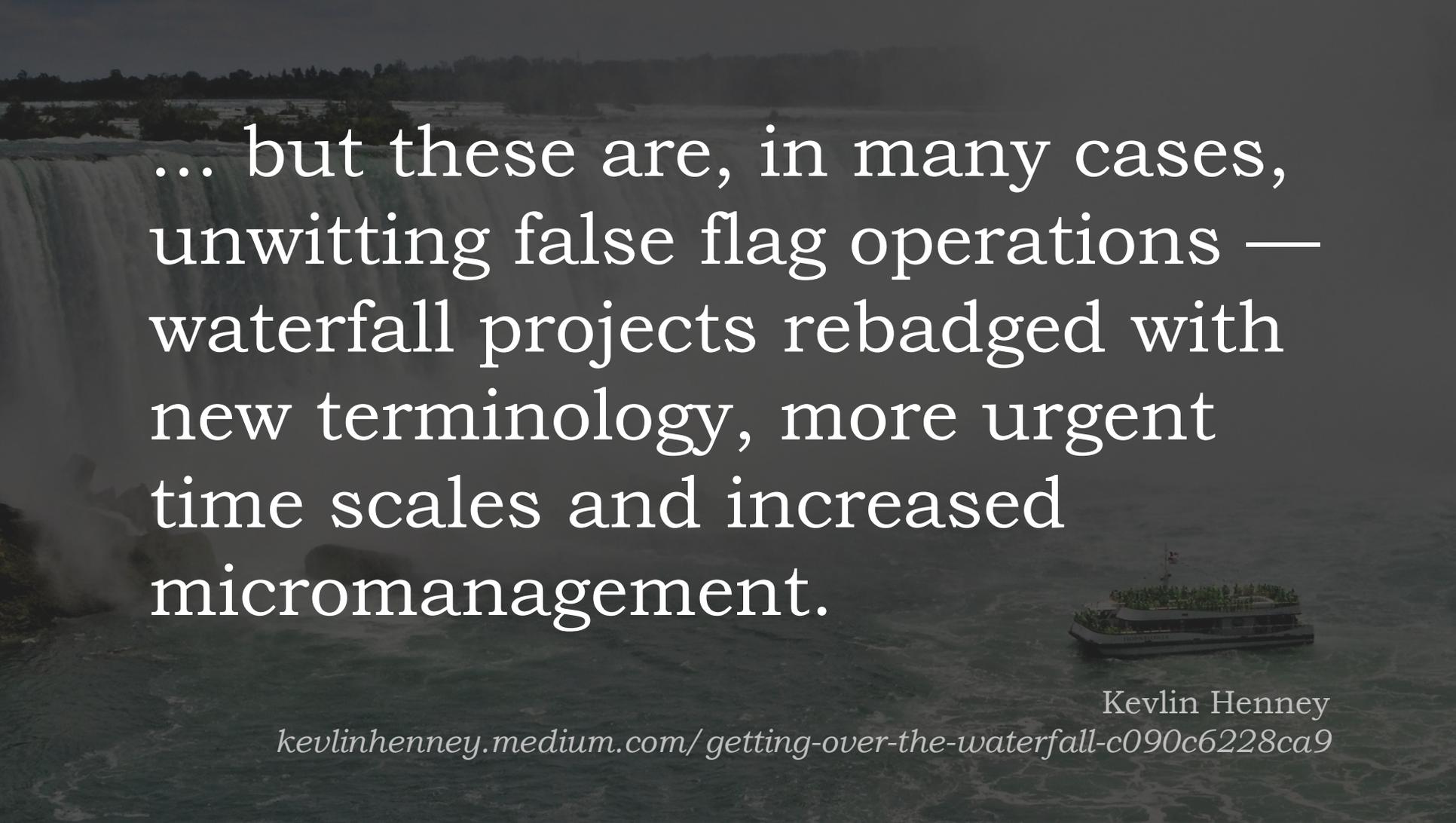
builtin.com/software-engineering-perspectives/kent-beck-geeks-gusto-globalization

A photograph of a waterfall with a small boat in the foreground. The waterfall is on the left side, and the boat is on the right side. The background is a dark, overcast sky. The text is overlaid on the image in a white, serif font.

There are many businesses and teams that would claim to be flying the Agile flag (or the Lean flag or the DevOps flag or...) rather than the flag of waterfall development...

Kevlin Henney

kevinhenney.medium.com/getting-over-the-waterfall-c090c6228ca9

A photograph of a waterfall with a small boat in the foreground. The waterfall is on the left side of the image, and the boat is on the right side. The text is overlaid on the image.

... but these are, in many cases, unwitting false flag operations — waterfall projects rebadged with new terminology, more urgent time scales and increased micromanagement.

Kevlin Henney

kevinhenney.medium.com/getting-over-the-waterfall-c090c6228ca9

No Agile & Iterative when:



- You know when you are not doing iterative development when:
 - Iterations are longer than 2-6 weeks
 - Team tries to complete specifications before programming
 - An iteration does not include testing
 - Iteration does not produce workable code
 - Detailed (task level) plans and accurate estimates are expected at the beginning of a project
 - The iteration plan doesn't reflect what team is doing
- You know when you are not doing agile development when:
 - There is little co-operation within the team
 - Design and code is produced in individual effort
 - Progress is measured by hours spend or documents created instead of working code
 - Builds are done once in three weeks.

Public

The Nokia Test is in two parts.

First, are you doing Iterative Development?

- Iterations must be timeboxed to less than 4 weeks
- Software features must be tested and working at the end of each iteration
- The Iteration must start before specification is complete

The next part of the test checks whether you are doing Scrum (in Nokia's opinion):

- You know who the product owner is
- There is a product backlog prioritized by business value
- The product backlog has estimates created by the team
- The team generates burndown charts and knows their velocity
- There are no project managers (or anyone else) disrupting the work of the team

Scrum, for our purposes, is the thought and action cloud around the word Scrum, around the Scrum “notion”. Scrum is what the whole Scrum system is and does.

Ron Jeffries

ronjeffries.com/articles/021-01ff/what-about-scrum/

Scrum, seen as the whole system,
is very much anti-maker and anti-
making, *despite the good will of
everyone I know inside that system.*

Ron Jeffries

ronjeffries.com/articles/021-01ff/what-about-scrum/

SOFTWARE ENGINEERING

Report on a conference sponsored by the

NATO SCIENCE COMMITTEE

Garmisch, Germany, 7th to 11th October 1968

SOFTWARE ENGINEERING

The design process
is an iterative one.

Report on a conference sponsored by the

NATO SCIENCE COMMITTEE

Garmisch, Germany, 7th to 11th October 1974

Andy Kinslow

Plan

Establish hypothesis,
goal or work tasks

Do

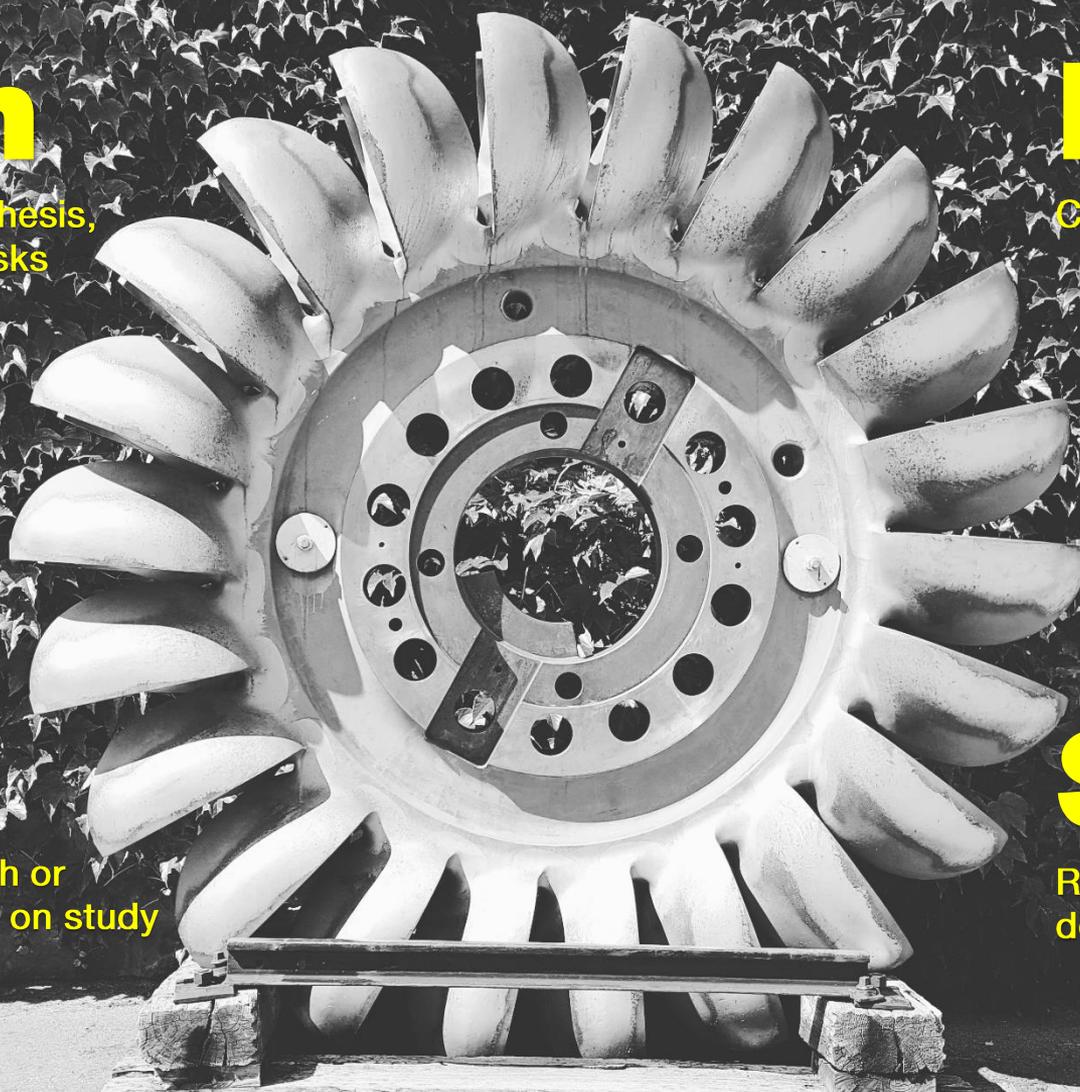
Carry out the plan

Act

Revise approach or
artefacts based on study
(a.k.a. *Adjust*)

Study

Review what has been
done (a.k.a. *Check*)



SOFTWARE ENGINEERING

The most deadly thing in software is the concept, which almost universally seems to be followed, that you are going to specify what you are going to do, and then do it.

Report on a conference sponsored by the

NATO SCIENCE COMMITTEE

Garmisch, Germany, 7th to 11th October 1972

Douglas Ross

SOFTWARE ENGINEERING

And that is where most of
our troubles come from.

Report on a conference sponsored by the

NATO SCIENCE COMMITTEE

Garmisch, Germany, 7th to 11th October 1968
Douglas Ross

You have to finish things —
that's what you learn from,
you learn by finishing things.

Neil Gaiman

A group of people in a meeting room, with one person pointing at a whiteboard.

Manifesto for Agile Software Development

We are uncovering better ways of developing software by doing it and helping others do it.

Through this work we have come to value:

Individuals and interactions over processes and tools

Working software over comprehensive documentation

Customer collaboration over contract negotiation

Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

Manifesto for Agile Software Development

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

Individuals and interactions over processes and tools
Working software over comprehensive documentation
Customer collaboration over contract negotiation

Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.



**101 Things I Learned
in Architecture School**
Matthew Frederick

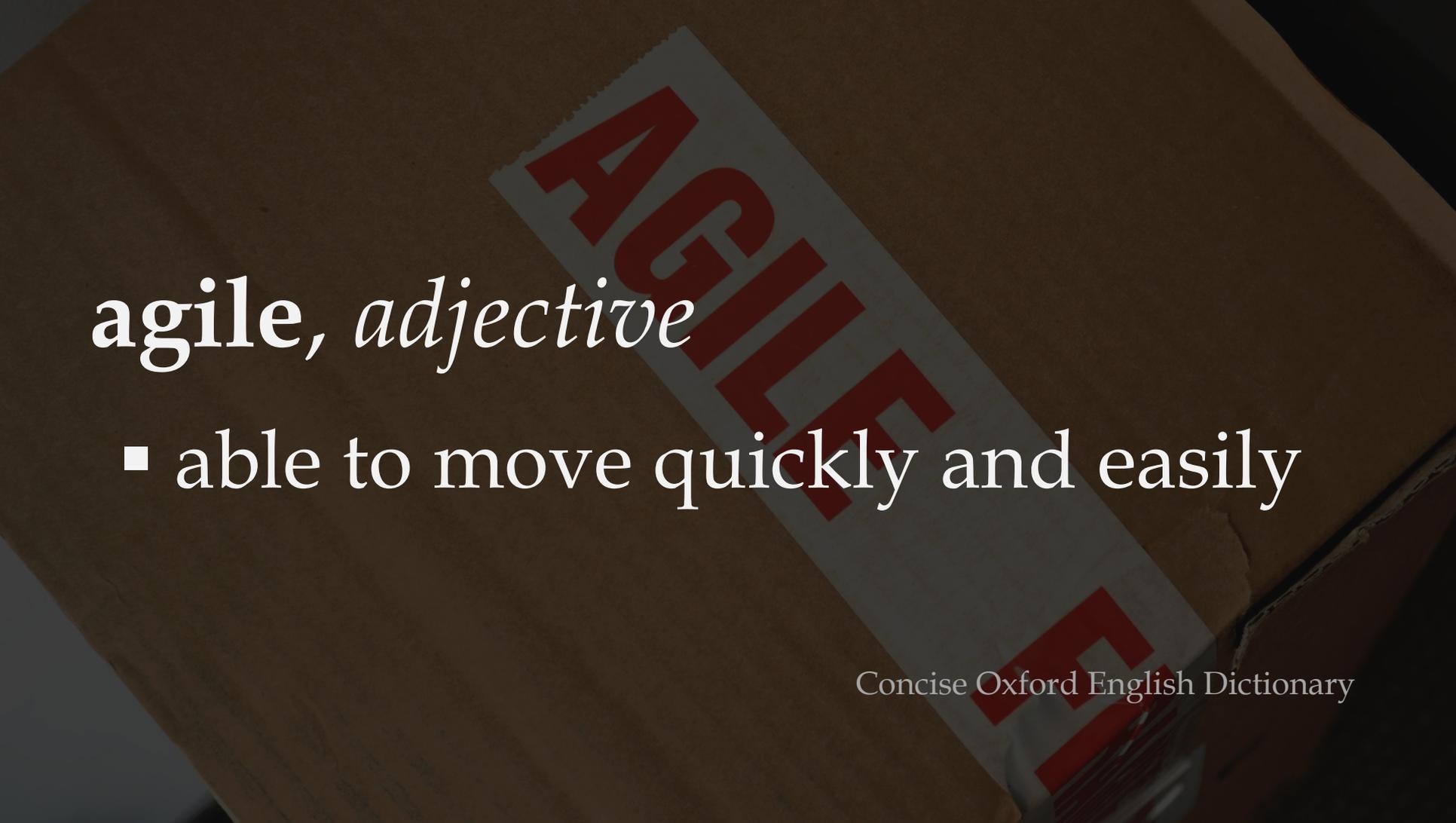
Properly gaining control
of the design process
tends to feel like one is
losing control of the
design process.



Progress

FRAGILE

FR



agile, *adjective*

- able to move quickly and easily

Concise Oxford English Dictionary



agile, *noun*

- quick movement

The goal pursued by many organisations 'doing' agile



agile, *noun*

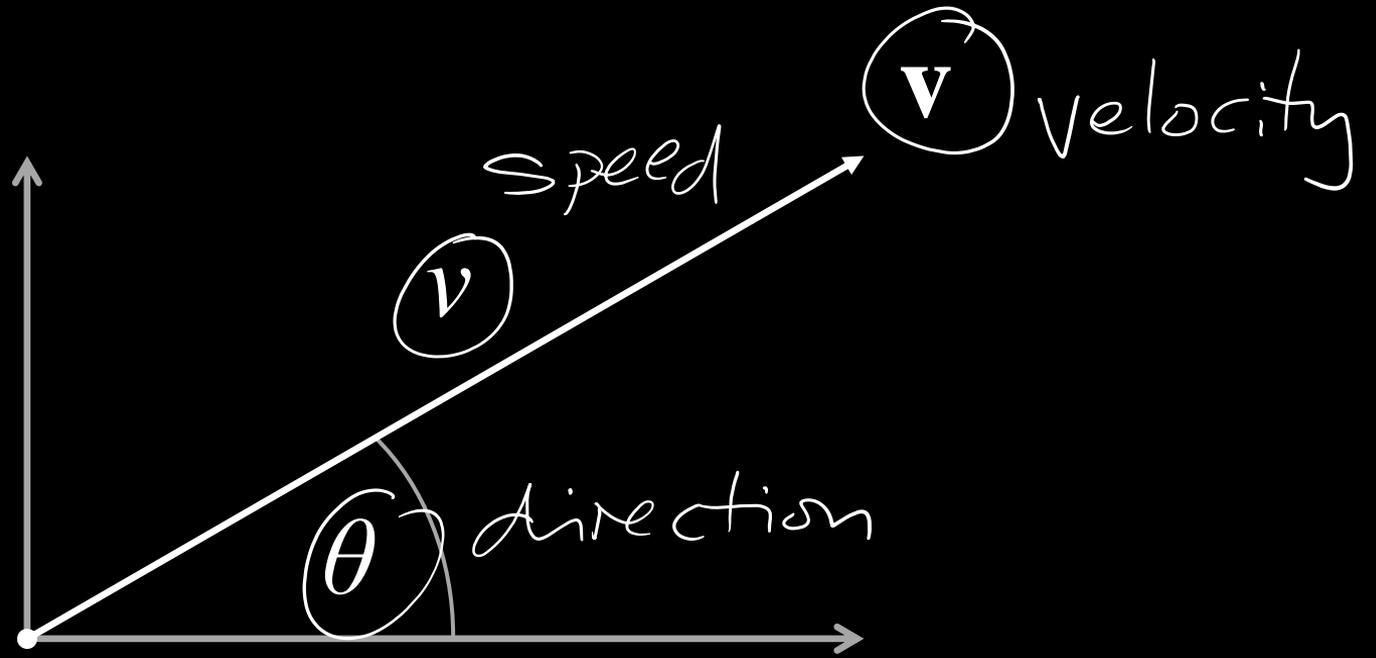
- busyness

The result of many organisations 'doing' agile

velocity

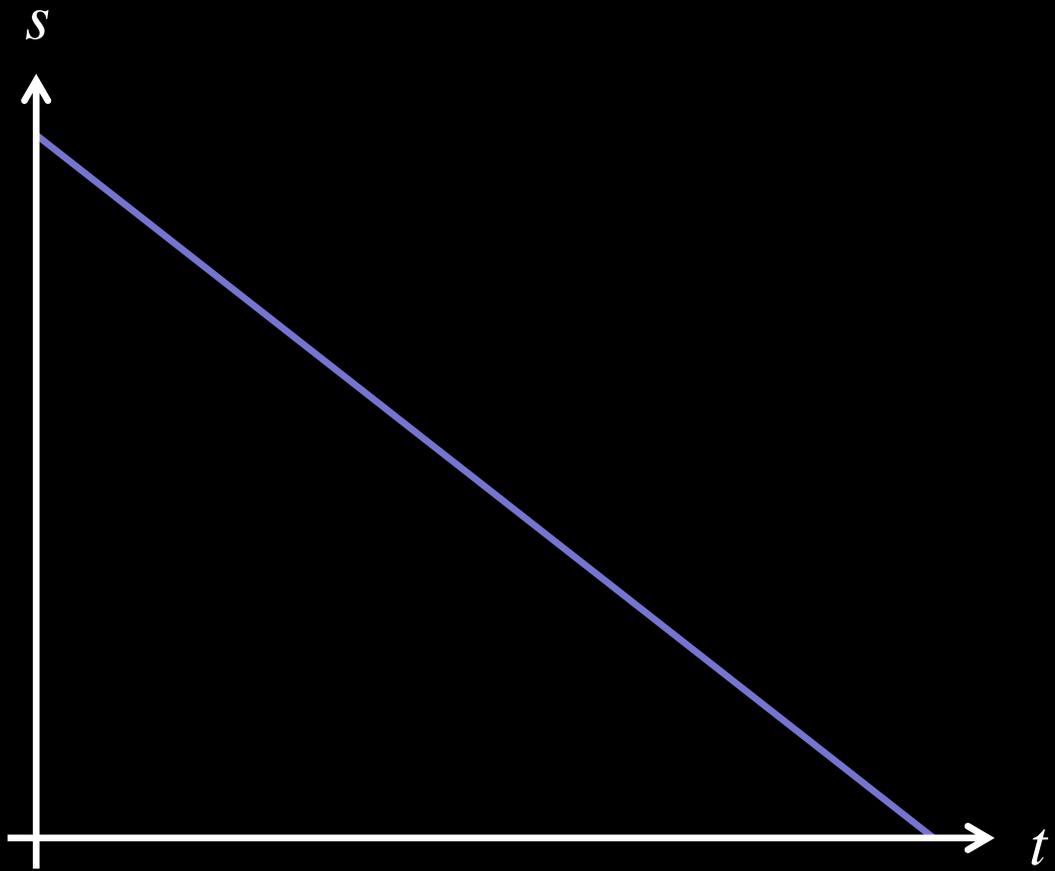


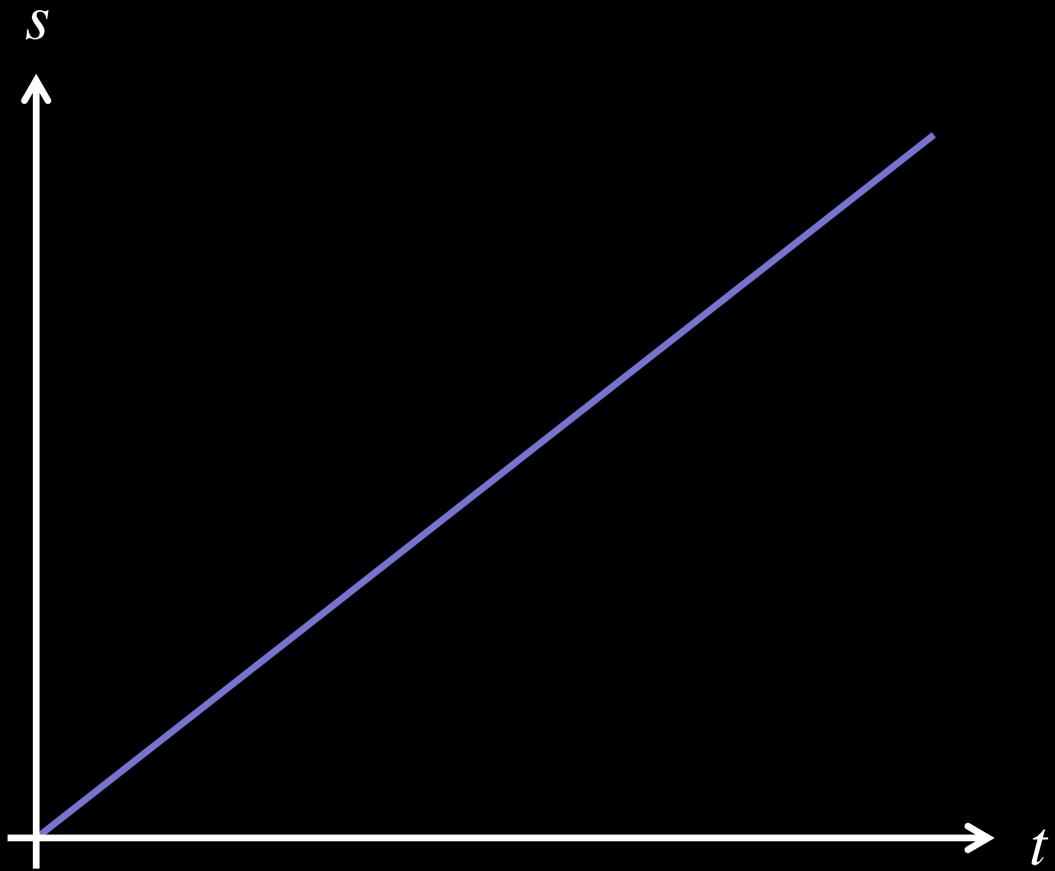
You keep using that word.
I do not think it means
what you think it means.



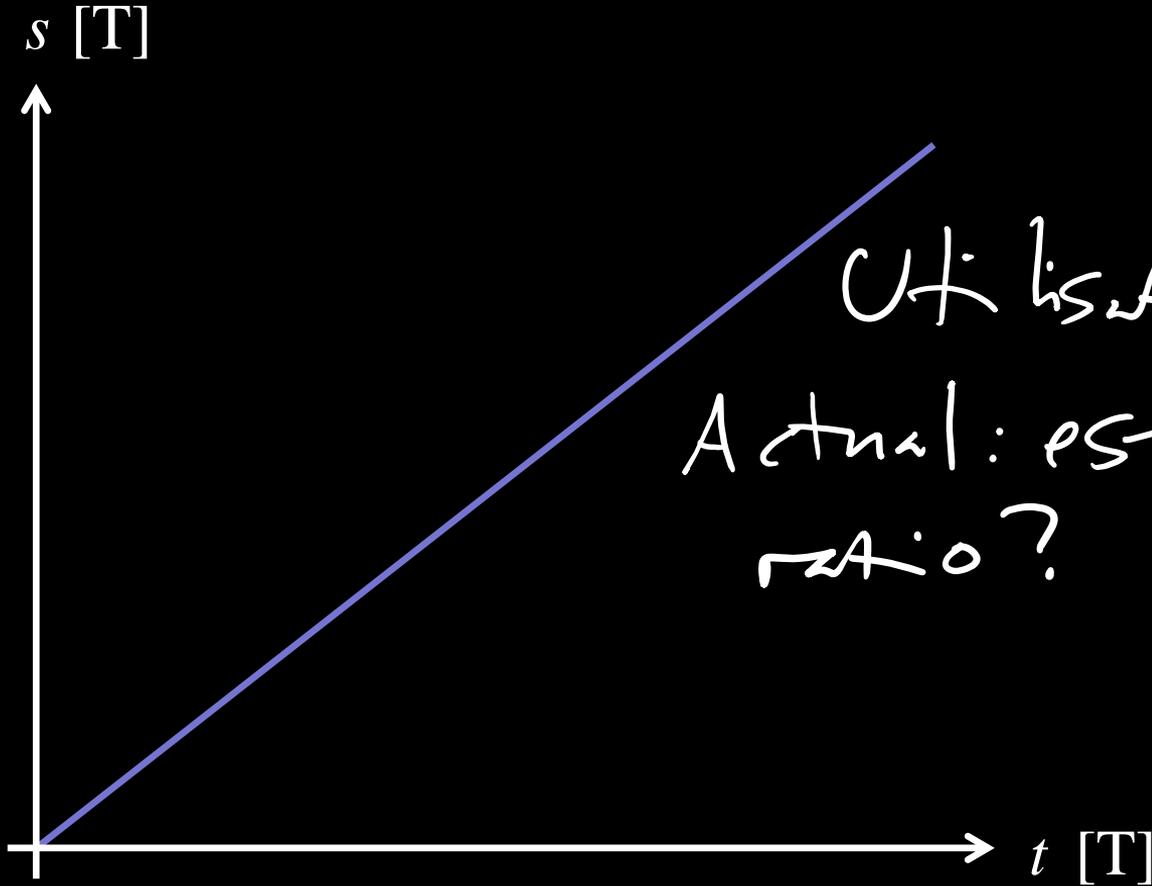
$$v = \frac{ds}{dt}$$

$$v = \frac{s}{t}$$





Stop
points?



Utilisation?
Actual: estimate
ratio?

KEEP GOING →

FROM THE
NEW YORK TIMES
BESTSELLING
AUTHOR OF
**STEAL LIKE AN
ARTIST**

10 WAYS TO STAY CREATIVE IN GOOD TIMES AND BAD

AUSTIN KLEON

It's impossible to pay proper attention to your life if you are hurtling along at lightning speed. When your job is to see things other people don't, you have to slow down enough that you can actually look.

**Move fast and
break things**

**Move slow and
mend things**

**Deliver sooner,
not faster**

Planning





"Yes, the planet got destroyed, but for a beautiful moment in time we created a lot of value for shareholders."

business value

~~prioritise by
business value~~



POLICE PUBLIC CALL BOX

FREE PUBLIC CALL
PULL TO OPEN

SPACE INVADERS
PLAYER 01

NEW

prioritise by
estimated
business value

time to
market

time in
market

sustainability

Prediction is very difficult,
especially about the future.

Niels Bohr?

Scale

AGILE

F

This body which was called and
which still calls itself the Holy
Roman Empire was in no way
holy, nor Roman, nor an empire.

Voltaire

Voltaire's observation on the Holy Roman Empire seemingly offers a template for describing SAFe, the Scaled Agile Framework.

twitter.com/KevlinHenney/status/1465596898937556993

scale

scale?

no

yes

up

down

**Software development does not
have economies of scale.**

**Development has diseconomies
of scale.**



Allan Kelly

Beyond Projects

<http://www.slideshare.net/allankellynet/no-proiects-beyond-projects-refreshed-version>

$$t = t_1$$

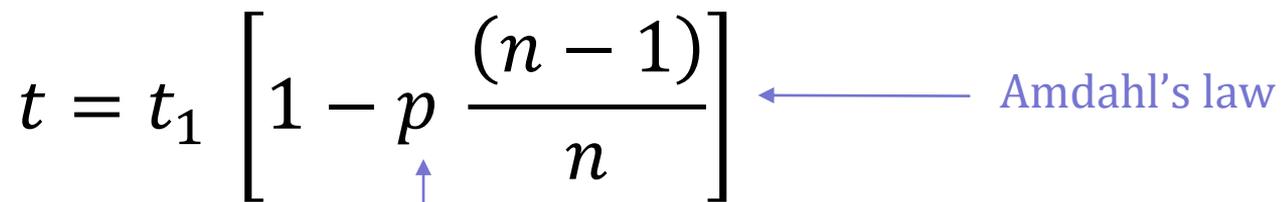


completion time
for one person

$$t = \frac{t_1}{n}$$



division of
labour

$$t = t_1 \left[1 - p \frac{(n - 1)}{n} \right]$$


Amdahl's law

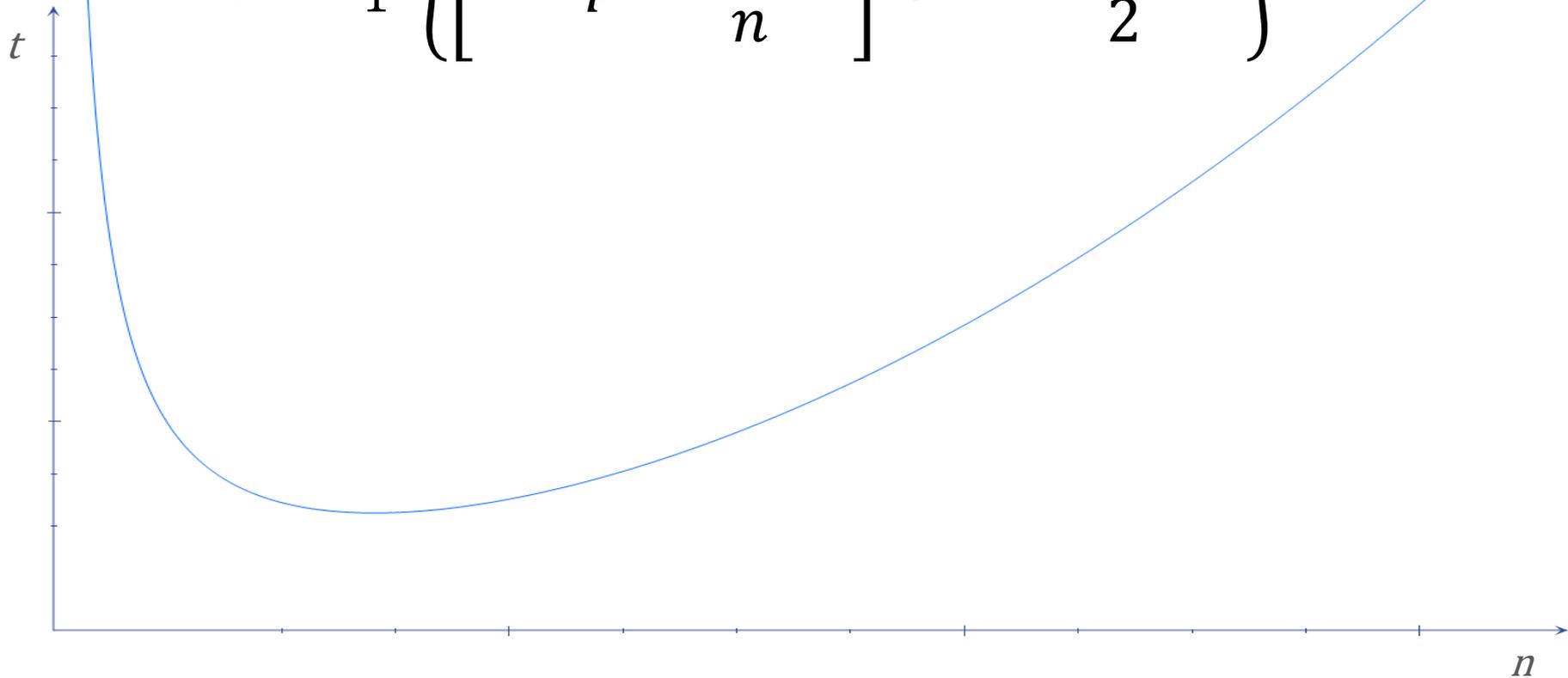
portion in
parallel

$$t = t_1 \left\{ \left[1 - p \frac{(n-1)}{n} \right] + k \frac{n(n-1)}{2} \right\}$$

connections
(worst case)

communication
overhead
(typical)

$$t = t_1 \left\{ \left[1 - p \frac{(n-1)}{n} \right] + k \frac{n(n-1)}{2} \right\}$$



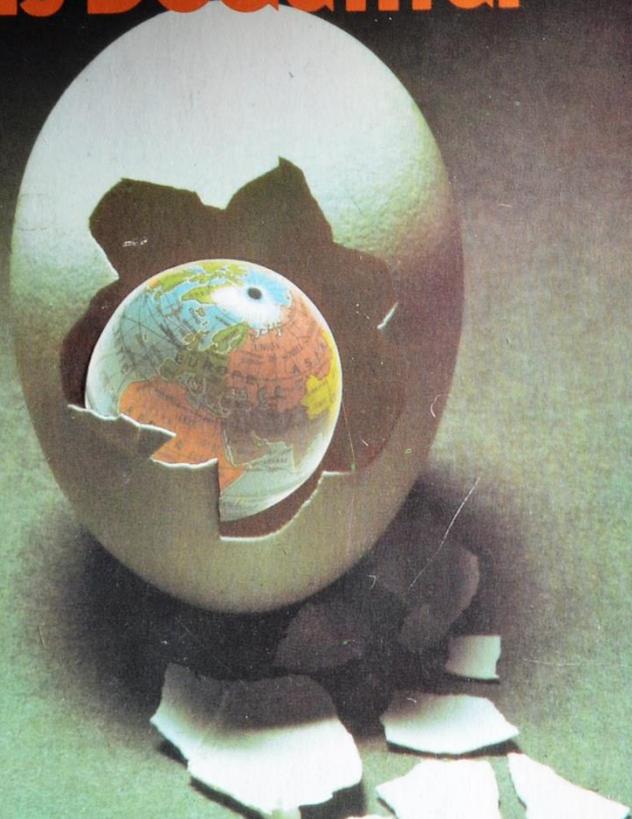
The Facebook iOS app has over 18,000 Objective-C classes, and in a single week 429 people contributing to it.

Facebook's code quality problem

Graham King

<http://www.darkcoding.net/software/facebooks-code-quality-problem/>

E.F. Schumacher
**Small
is Beautiful**



For every activity
there is a certain
appropriate scale.

Productivity is a function of codebase size. Developers are dramatically less productive on larger bodies of code.

Rob Smallshire

sixty-north.com/blog/predictive-models-of-development-teams-and-the-systems-they-build

Calm

We don't develop proper recognition for the skills and qualities of mind that in fact help make collaboration successful, productive and enjoyable.

The task of collaboration is, in fact, beautiful and serious. It is one of the grandest undertakings to coordinate the efforts of groups of people.