



How to write a good [systems] paper (things I wish my mother had told me)

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1. Many papers are rejected because of poor presentation and poor choice of content – not the ideas they present.
2. Good ideas aren't getting published; authors are getting frustrated, and some even disengage.
3. Applying just a few rules of thumb can make it easy for reviewers to see the brilliance in your work, and prevent most of this.
4. The result will be better acceptance rates for good ideas, happier authors, happier reviewers, and happier readers 😊.



I try to have four sentences in my abstract. The first states the problem. The second states why the problem is a problem. The third is my startling sentence. The fourth states the implication of my startling sentence.

— *Kent Beck*

Ralph E. Johnson, Kent Beck, Grady Booch, William Cook,
Richard Gabriel, and Rebecca Wirfs-Brock.
How to get a paper accepted at OOPSLA.
SIGPLAN Notices 28(10):429-436, Oct. 1993.

Idea #1

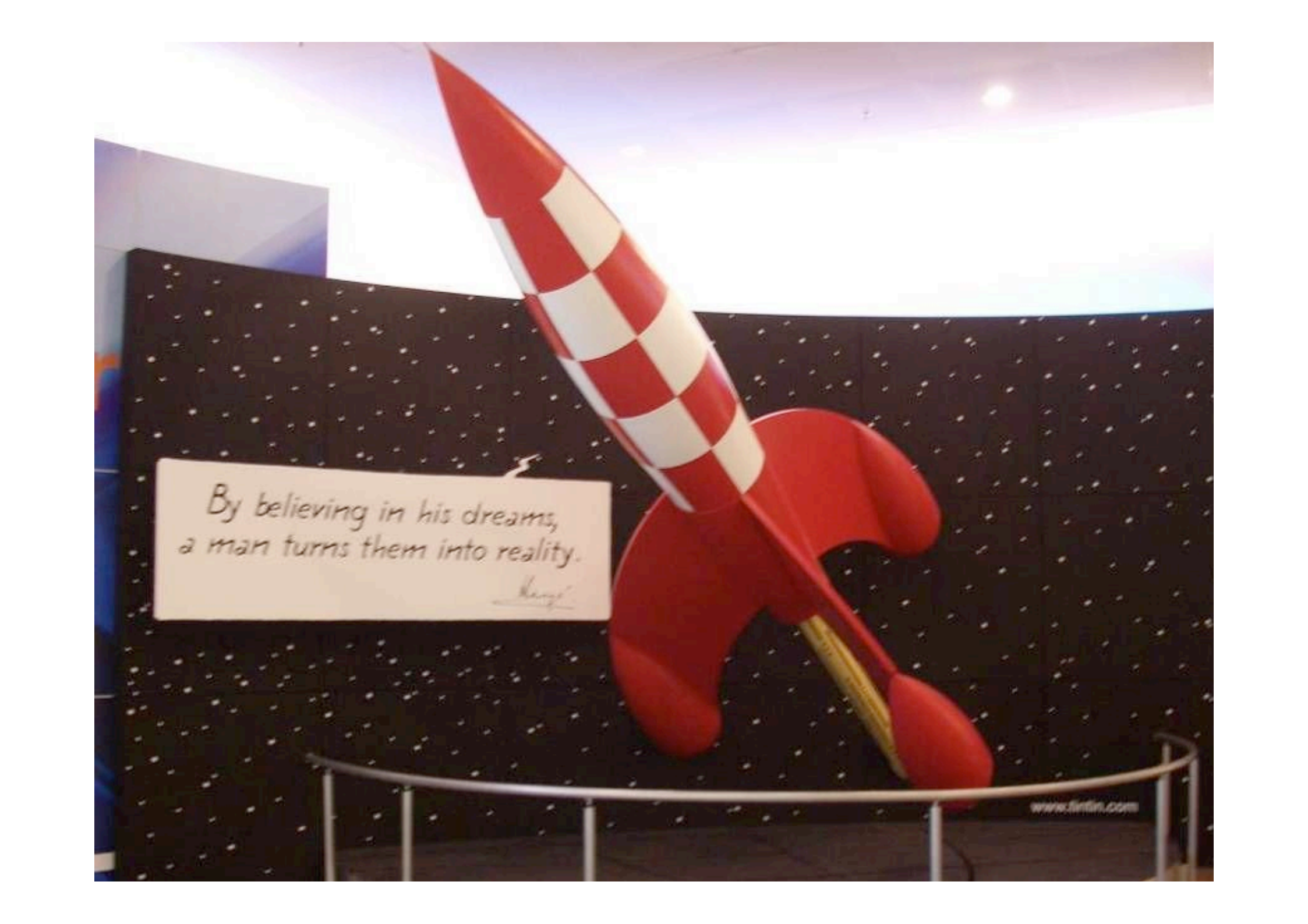
Have a good
abstract









A large, stylized model of a rocket ship is the central focus. The rocket's body is decorated with alternating red and white horizontal stripes. It has a pointed nose cone and a red base with three large, curved fins. The rocket is angled upwards from the bottom right towards the top left. The background is a dark, curved wall covered in numerous small, white, star-like specks, creating a night sky effect. To the left of the rocket, a white rectangular sign is mounted on the wall. The sign contains a handwritten-style quote in black ink. A thin metal railing runs across the bottom of the scene, separating the viewer from the display. The ceiling above is a light, neutral color with a few recessed lights.

*By believing in his dreams,
a man turns them into reality.*

Henry

Idea #2

Tell a story

Tell a story

- Have a story to tell
 - why are you writing? why would anybody read it?
 - what is the story? (be precise)
- Tell only that story
 - Don't tell any other stories
 - Only show results/justifications that belong to the story
- Decide on the story before you begin
 - Make the story drive the paper – not the reverse
 - Work backwards from the punch line

Introduction

The adoption of service-oriented computing is a dominant trend in enterprise computer systems [Patrick2005]. In a service-oriented computing environment, business functions and processes are composed from separable, loosely-coupled services that can be reused in many situations; the grid can be viewed as its non-commercial counterpart [Foster2003]. Both are examples of reuse and modularity at large grain.



Introduction

We have a colleague who often runs 100,000 jobs over a weekend on a shared compute cluster in order to perform an experiment. Each job takes a few minutes to run and produces one data point on a graph. The graph is nearly useless if too few data points have been obtained by Monday morning; but completing 90% is almost as good as completing all of them. No particular job is more important than any other – it's the aggregate set of results that counts.



Idea #3

Start your story
with a problem
statement





Idea #4

Tell the simplest
story you can

How not to tell a story (1)

- Spend the first 2 pages motivating the problem
- Spend the first 2 pages explaining your solution
- Explain why all other approaches are wrong
- Lovingly motivate and describe the big system in which you tested your idea

How not to tell a story (2)

- No picture on page 1
- Sentence fragments; sloppy proofreading
- Don't test your ideas – it's clear they are right!
- Don't explain your results – they can stand alone!

- Key assumption:
 - ➔ communication faults are the readers'



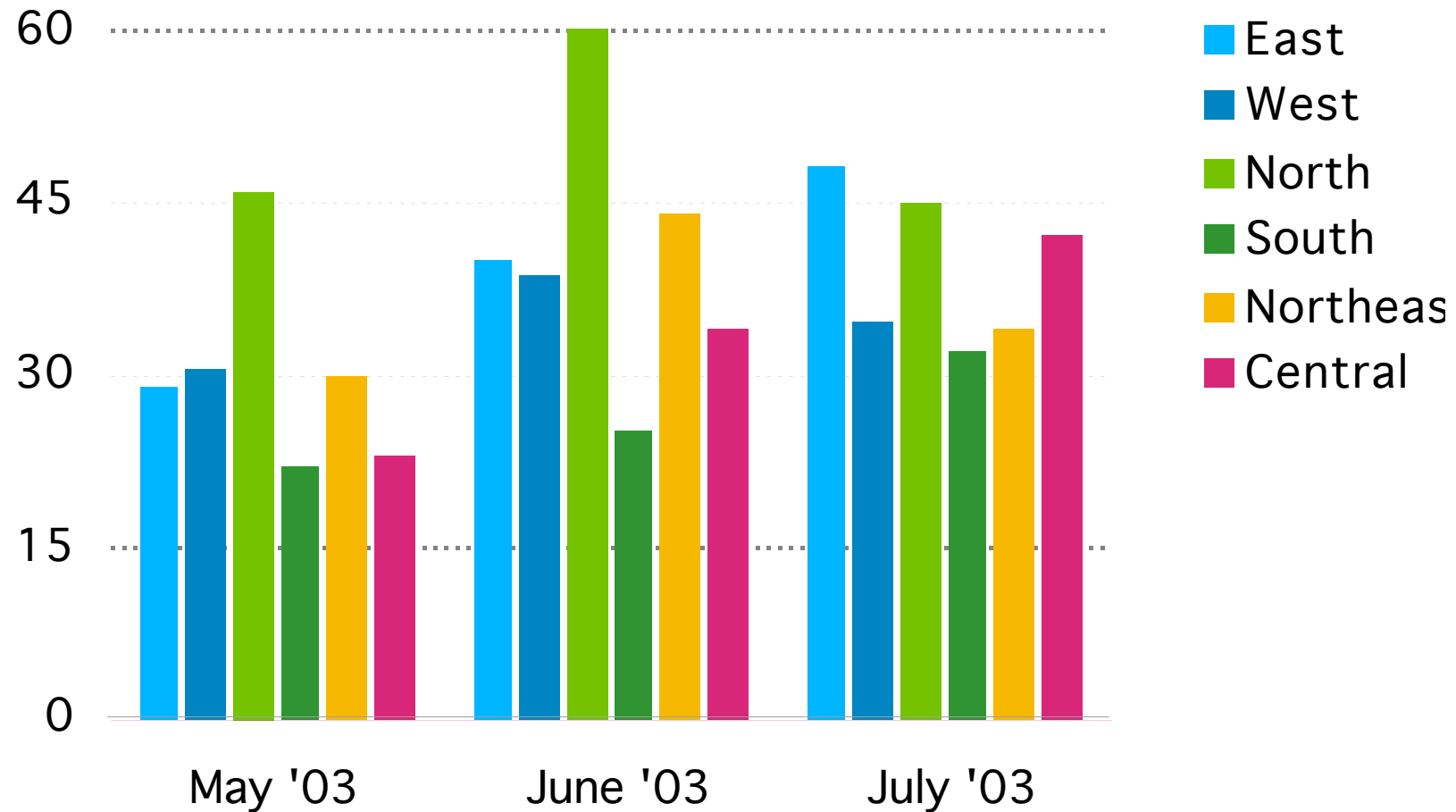
Related work

... is your friend, not your enemy!



- The better you make the related work look, the better you make your own work look
- Don't:
 - denigrate related work
 - give incompl referncs
 - over-cite (or miss) the reviewers' own work

It's always good to have data



It's always good to have data

- Why is it here?
 - how does it help the story?
(work backwards from the conclusions)
- Is it statistically sound?
 - repeatability?
 - variance data?
 - statistically significant?
 - appropriate loads?











Idea #5

Tell only your
story – not the
system's

Questions?

