



# The Long Tail of Innovation

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## Take Home Message

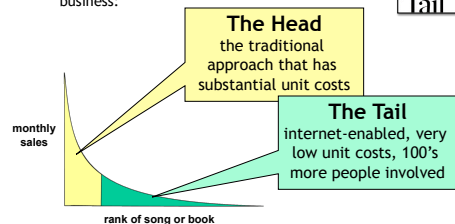
Cooperative problem solving is a long-tail phenomenon, regardless of industry, company, or methodology.

Half of your ideas and value lie "down the tail," beyond the reach of traditional teams and meetings.

This has consequences for your competitive advantage, and the predictability, scale, costs, expectations, and infrastructure to support innovation.

## The Concept

In his book "The Long Tail," Chris Anderson shows that the internet, by helping to lower transaction costs to nearly zero, has forever expanded and disrupted the book and music business:



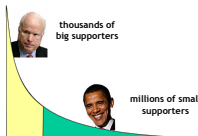
## Tails are Everywhere

The examples below show how widely this reality applies; this poster tells a detailed story about solving business problems.

### Selling Music and Books



### Getting Elected



### Solving Business Problems



## Yes, We Have a Tail

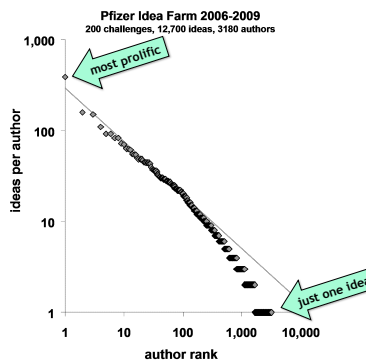
To the right is a rank-frequency plot of all of the ideas entered into the Pfizer Idea Farm over a three year period.

The most prolific author put in about 500 ideas, while the least put in just one - but there were thousands of such people!

A straight line on a log-log plot is a *power law*. It is the signature of *scale-free* phenomena, caused by *positive feedback*.

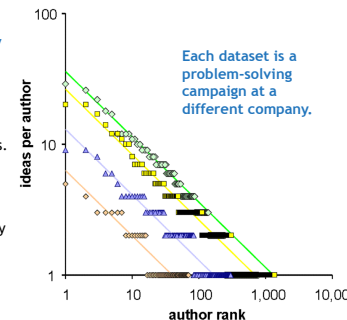
There are many scale-free systems in nature and human behavior, for example

- wildfires & avalanches
- salaries & sizes of cities
- internet connections

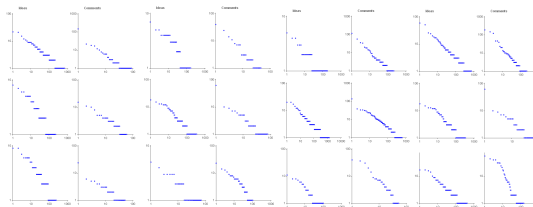


## True in Every Company

These graphs show the same analysis from individual campaigns at Cargill, CSC, Pfizer, and Bombardier. The smaller graphs below show 24 more examples from many other companies.



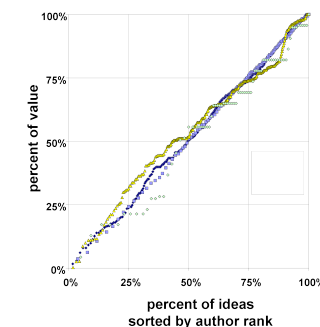
As long as participation is voluntary and not more than about 40% of the total invited audience (which is nearly always true), this pattern holds up.



## The Value of an Idea

Here are the results of sponsor-team reviews of ideas from four large events. We assign a value to each idea based on the team's binning (usually high-medium-low). No matter how this is done, what we see is that the ideas from the "head" (the most prolific authors) have the same value as those from the "tail" (people who put in just one idea each).

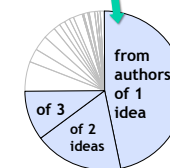
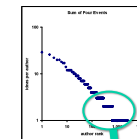
This is a huge concept and lets us put a value on collaborative innovation --- and value on the opportunity lost by just doing things the same old (head) way.



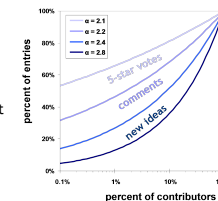
## The Tail Wags the Dog

The tail is *huge*. If we combine the four campaigns shown below-left and put them on one graph, we find that three-quarters of the ideas came from people who put in 3 or fewer, and nearly half from people who just put in that one idea.

Remember our value metric: this means that half the value in a voluntary collaborative problem-solving campaign comes from people who contribute just once.



Notice how this debunks the social network buzz on "reputation." Reputation, in this Web 2.0 sense, is driven by quantity. People who put in just one idea are not going to make the cut, and if we discourage them we'll lose the tail -- and half our value.



There is a deeper mathematical analysis based on data from Digg, Wikipedia, and others, which shows that our business problems are about the hardest problems getting solved on the web, and the harder the problem, the more the solution depends on the tail.

## Practical Consequences and Advice

- The long tail in collaborative innovation is real and universal. Don't pretend you're different, don't deny it, and adapt to what it tells us about people everywhere.
- The tail offers a real competitive advantage, in the same way that Amazon has over traditional bookstores or iTunes over music stores.
- Adopt systems and practices that make accessing and managing the tail easy.
- Work with sponsors who welcome head *and* tail value.
- Advertise and seed campaigns. Power law systems are driven by positive feedback, use that to your advantage.
- Make search and review easy (the genius of Amazon...)
- Give equal access, don't expect equal contribution.

## Thank You !



imaginatik

BOMBARDIER

Cargill

CSC

Arthur D Little

Steve Street, Doug Phillips

Mark Turrell, Geoff Carss, Tim Woods, Colin Nelson

Mike Hatrick, Dave Wootton

Anne Rogers

Howard Smith

Alan Martin

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Mr. Darcy