



Stanford eCorner

Cost-Benefit Analyses at X

Astro Teller, X

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Video URL: <http://ecorner.stanford.edu/videos/4215/Cost-Benefit-Analyses-at-X>

Astro Teller explains how the audaciousness of an idea for generating electricity once shared in Alphabet's moonshot factory outweighs its impracticality in his mind. He discusses how committing resources to a bad idea costs his organization more than turning down a good idea before looking into it. "Humanity is in no danger of running out of huge problems to work on," Teller says.



Transcript

- Could you put a ring of copper around the North Pole or the South Pole I guess, and use the Earth's magnetic flux, right. The molten core of the Earth kind of sloshes back and forth a little bit and you get sort of a moving B-field which would generate a current in this huge piece of copper that you put around Santa Claus' house. Then you could pipe that current back down here. It turns out not to work, but I mean it works, it's just not at all cost effective. But it actually would generate electricity. AC obviously. (audience laughs) But very slow full wave AC. But I love those questions because they make me believe that we haven't even scratched the surface of our collective creativity as a species yet. It's important because it shapes something about X. Part of what I've just described about killing these projects as fast as we can has a hidden assumption in it, which I believe very strongly.

But you have to believe this in order for what I've just described to be right. The cost of a false positive at X, at any innovation factory, is huge relative to the cost of a false negative. A false positive is where we think we have a great idea and it's not a great idea. That's a false positive. But if we think it's a great idea when it's really not, we're spending money, we're spending money, we're spending money, it's all this management time, and the team keeps growing. We're wasting all of our money because at least in this thought experiment, it's a bad idea. What's the cost of a false negative? If we say that something which is actually a great idea, we look at it and we say, no that's not a great idea. That's only a cost to us if there's a really limited supply of great ideas, of really big problems with really innovative solutions. Sadly, humanity is in no danger of running out of huge problems to work on, and I really don't believe that we're in any danger of running out of really interesting, incredibly different potential solutions. Because both of those things are so rich in such great supply, that false negatives cost us almost nothing relative to the false positives.

Better to lean fairly heavily towards the false negatives rather than the false positives.