



## Stanford eCorner

### Risk is a Necessity for Exploration and Growth

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Video URL: <http://ecorner.stanford.edu/videos/2003/Risk-is-a-Necessity-for-Exploration-and-Growth>

Space entrepreneur and X PRIZE Founder Peter Diamandis believes that the world today is far too adverse to risk. True breakthroughs that expand scientific capability take a tremendous amount of adventurous spirit, which means real mavericks need to be audacious in order to discover greatness.



#### Transcript

I was in a congressional hearing and one of the congresswomen stood up and said, "Dr. Diamandis, aren't you in fact going to cause people to kill themselves as they go after this X PRIZE?" I was really taken aback by the question. I thought for a moment and I answered her the following way. I said, "Five hundred years ago, thousands of people gave their lives as they crossed the Atlantic to open up this great nation. Two hundred years ago, thousands gave their lives again as they crossed the Great Plains to open up the West. And you're telling me on the verge of the greatest human exploration ever, people shouldn't risk their lives? That's un-American." And she didn't follow up with any further questions. But it's true. You stop and you think about it. To have true breakthroughs, require taking risk. I think we're killing ourselves in this country by our inability to take risk.

The day before something is truly a breakthrough, it's a crazy idea. If it's not a crazy idea, then it's a small incremental improvement. It's not a true breakthrough. So, where do we incentivize really risky stuff? It used to be in the government programs. I mean, for God's sake - Saying in 1961, they were going to the moon after we had not even sent anybody to orbit yet. We had just put Alan Shepard up on a sub-orbital flight. The medical journals, if you go back and you read the late 50s and the early 60s or late 50s, didn't know how the human body physiology would react to space. Would the brain work in the Van Allen Belt, because it's basically electromagnetic machine. Could you even swallow in zero gravity? Now, the fact of the matter, anybody who has ever watched someone drinking a beer while standing in their head would be able to know that you can swallow in zero G. But they asked these questions, and so the audaciousness of this - and I want to share a metric with all of you to really empower you in something.

The average age of the engineers in 1961 who designed the Apollo program, invented the propulsion, the navigation and guidance, the structures, the rendezvous and docking system, the average age was 26. The average of the engineers who designed the Apollo program was 26 years old, because there was no one there to tell them it couldn't be done. They were literally at the peak of their creativity. These people were given a clean sheet and said, "Go and make this happen. You have a Presidential mandate." And they did. The same average age as who created the dot com revolution. So, to the faculty in the room, the next time someone in their mid-20s comes to you with a crazy idea, listen. To the students in the room, if you have a crazy idea and someone tells you it's a crazy idea, well, maybe it is for them; go and do it. So, literally, there's a way of thinking that we have to take risk.