Stanford eCorner

The Benefits of Advanced Technical Training

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Dominic Orr, CEO of Aruba Networks, argues that the unique benefit of advanced technical training is not necessarily analytical thinking-this skill can be developed in many places. Rather Orr suggests that the benefit of advanced technical training is the courage to address uncertain problems with brutal intellectual honesty. For Orr, this quality has allowed him to innovate on the technical frontier while having the courage to recognize when he might have failed and needed to redirect his efforts.

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Transcript

I would say, if you ask a lot of people who've gone through the Ph.D.. thing and then in management, they would say, "Well, it trained me in my analytical capability to question and so on." That is true, but it is very generic.. You can go through a lot of other routes to gain that analytical... For me, being, in a way, I was very very lucky to be working with--both while I was in Physics at Caltech, and when I was in neurobiology in Caltech, I was working with people who were pushing the state of the art of their research.. Through that observation of just how people handle the question of what's the scope of the problem that they want to ask, gave me one major psychological insight that I think a lot of my counterparts do not have... It is the courage to face uncertainty.. A lot of people are just not comfortable when you are actually at the edge.. When you have a business plan, they say, "How do you define your market? What's your objective? How many points of market share that in a year or two, with your business, can you achieve?" The answer is, if you're a good entrepreneur, you say, "If you really can segment that market that well, and predict, in two years, what your market share is, it's not worth going.. The big gun's already going at it." So the only way you can have a chance to succeed is to go for an area where it cannot be defined and actually be segmented.. And a lot of people are just not comfortable with that..

But in your pursuit of really good scientific research, that is exactly where you want to go.. And another thing is, the flip side of that is, you're not afraid of failing and then having to restart.. That comes hand in hand.. But you cannot get locked in too long, and that is really where another aspect of the brutal intellectual honesty comes in.. Another aspect of that, other than just applying it at the staff level is, at the executive level.. You want to invoke, when you are in territory like that, you need the courage.. How do you derive the courage? You derive the courage by having a passion.. Passion is derived from the vision.. The good visions are that you are ahead of the game.. Those are the good visions, right, and that means that you could be mad wrong..

A lot of people, the problem they have is, because they need that courage, they have to invoke, they psyche themselves up, so to speak.. And so when you work on something that people don't see, and then you wake up in the morning... I have gone through many times, I drive to work, I don't know whether I'm visionary, or the grandest delusionist in the Silicon Valley.. And I fluctuate within the month several times, depending on that basicworking or not, and the people delivering something and so on.. So my point is, the whole scientific training of pursuit of truth, and let truth dictate, so you're not afraid, if you look at a wrong answer, to go back and find another one.. And that brutality applied to yourself, to be totally driven by intellectual integrity, if you are wrong, after two and a half years and getting down and getting the product, say, "Sorry." Go back, rather than waste another two and a half years by justifying to yourself, because you're not ready to give up the two years' investment...