## Stanford eCorner

Keep it Simple to Reduce Cognitive Load 12-02-2014

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Stanford Professor Bob Sutton discusses the benefit of keeping things simple when adding new processes that may cause increased cognitive load on employees. Sutton, co-author of Scaling Up Excellence, also touches on the value of hierarchy and the role it can play in destroying bad bureaucracy inside organizations.

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## Transcript

When you think about the problem of more, a lot of what you're doing is you are doing things that add cognitive load to people.. You're adding more procedures, you're adding more process, you are adding more people, we'll talk about that more and so there is a lot of rhetoric and it's probably correct that if you're doing that you should follow A.G.. Lafley's model and keep things Sesame Street simple and there is a great set of studies by a guy named Bob Shriff who now actually teaches at the Stanford Business School, he did it early in his career I think he was at Duke and he did a pretty simple experiment where basically had two groups of people and one group typical undergraduates he randomly assigned them to conditions, memorized a 16 - a six I'm getting this wrong, a two digit number, I'm sorry, and so just like 16 that's why I said that like 16 and the other ones did a seven digit number like 3242257 and then what they did was they walked to like the end of a hall so about where the guy in the back is standing and they reported the number, but in between was cake and fruit.. So the question is what's the effect of the cognitive load because trying to remember that seven digit number is much more difficult than remembering the two digit number and the ones who did the seven digit number ate 50% more cake.. So what happens is when you give people cognitive load that they sort of lose the will and concentration on what's important.. So you've got to be careful of the cognitive load and one of my favorite examples, another Stanford graduate this is an attempt to - and no you can't read this, you're not supposed to be able to read this.. To bring essentially design thinking into it.. This is - they call it the D for D or design for delight movement.. And again at one of these early sort of kick-off things what they did was this was presented by Karen Hanson, who has a Ph.D.. in psychology from Stanford and Scott Cook who is the largest shareholder and co-founder of Intuit..

And even the title was convoluted, evoking positive emotion by going beyond customer expectations at ease and benefit delivery throughout the customer journey.. So when we talked to Karen and Karen let us talk about this in the book, she'll let me say this here, she says to her classes, she comes in and gives lectures.. She said people had two reactions to this.. One they couldn't understand what the hell we were talking about and number two they had this reaction that this too shall pass and so we sort of had a problem and pretty quickly they went to this.. This is what they still use.. This is their model, this is the only picture in the book, it's really simple and this is a case I think of sort of learning that making things is simple as possible, but no simpler is the way that you do scaling and here I hasten to add and there are certain management theorists and I had sort of a running polite squabble with Gary Hamel over this, who's a well-known management guru.. He's always talking about tearing down the bureaucracy and tearing down the hierarchy.. The fact is that as your organization or project grows, it gets more complex, you do need more roles, you do need a little bit more hierarchy, you do need a little bit of process it's just unavoidable and one guy who learned this is Mr.. Larry Page.. And it turned out when this is about 2003 or so, when Google got up to about 400 people he started longing for the good old days when they didn't have those annoying managers around..

So he got rid of all the annoying managers, because he's Larry Page so he could get rid of them and he had a situation where there was one executive who had more than 100 engineers reporting to him.. This did not last very long.. She's laughing.. Well he learned the hard way and now by the way I was just at Google yesterday doing something with a guy named Prasad Setty who runs sort of people analytics and now they're totally into essentially first-line supervisors, they're totally obsessed with them and think it's one of their keys to their success so they have learned.. So the last thing here is that as systems and projects get bigger, you've got to add more complexity.. But you have got to find some way to deal with it that sort of acknowledges and incorporates human limits.. So Ben Horowitz - of Andreessen Horowitz, has got a great line that

what you do is you put in just enough structure and process so you're giving ground grudgingly.. So and his perspective is you wait for things to crack a little bit, but not break.. And another expression, this is one of the heroes in the book, really interesting guy Chris Fry who before he was at Twitter, he has now head of engineering, but before he was at Twitter, he and another guy named Steve Green, they grew the development organization from 40 to 600 folks.. And he has got this great line that the purpose of hierarchy is to destroy bad bureaucracy..

And I think that's about right...