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Creativity Loves Constraint

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In product development, Google's Marissa Mayer, Vice President of Search Products &User Experience, believes that a small amount of constraint - whether in file size, pixels, or speed - fosters a lot of innovation. The lesson she shares? Too much creative freedom can make creativity unfocused. A solution with a strict set of barriers yields more concrete solutions.

Transcript

Creativity loves constraint. And this sounds really counterintuitive, because when you think about creativity you think about, you know, oh, having a lot of freedom to do whatever you want. And I think that, you know, from my perspective what I see is that a lot of times when you constrain your thoughts, that's when you ultimately see a lot of innovation happen. I have a good friend who's a clockmaker in London. He did the millennium clock among other things. And when I asked him, "Why are you a clockmaker? Why not just be a sculptor and you can sculpt whatever you want?" His answer was that when he was in art class, as a student, he preferred to start on paper that had a mark on it already. He just liked that constraint, because he said, "You know, I feel like if there's a mark on a piece of paper, I can take that mark and in my imagination I can figure out what to turn it into, but a blank piece of paper is almost just too intimidating." He said, "So, like, my sculpture's the same. If I know I'm building a clock, it's like a mark on a piece of paper. It's something that I'm constrained by, but it ultimately makes me want to think my way out of that box and do something really interesting." And I think you see the same thing happening inside of product development on the side of innovation. A lot of times it's when you say, "Okay, Google Desktop Search.

We want it to run on 90 percent of computers, so, you know, it can't have a memory footprint larger than 8 megs, and it can't take more than this amount of disk, and what can we do with that? How will the files need to be stored, and what kind of data will we be able to search, and what features can we rule out?" That's when you see a lot of really interesting innovation happen, is when you actually pen in the constraints.