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## **Kuang: China needs a 'third way' between inventing and copying**

*By Ken Kuang, Special to The Mercury News* POSTED: 07/14/2016 10:30:00 AM PDT

When you attend a consumer electronics show, you expect to see the next-gen Fitbit, iPhone or tablet. You might not expect to encounter armed U.S. marshals raiding and breaking up exhibitor booths -- but that's what happened at the Consumer Electronics Show in Las Vegas this January.

Quite a few Chinese companies' booths were raided over issues of patent violation. The raid that got the most publicity was on Changzhou First International Trade, where they were showing a self-balancing, one wheeled electric skateboard that looked "strikingly similar" to the one patented by the Silicon Valley startup Future Motion. Future Motion was neither amused nor flattered by the imitation.

The US takes issues of intellectual property protection very seriously, which presents a challenge to the business model followed by many Chinese firms; take an innovative new product developed elsewhere, copy it with minor alterations, then manufacture and sell it at a lower price than the original.

China has laws on the books against this, but enforcement is spotty, and Chinese companies hungry for trade have taken advantage of that weakness to purloin intellectual property with relative impunity.

Even Chinese-American inventors aren't immune. A Chinese company owner openly admired our three-roll mill design: "It's so sleek! Maybe I'll copy it and manufacture it in China. What could you do to stop me?"

He was half-joking, but only half. I told him, "If you copy it, I can't do too much in China -- but the world is very small. If the U.S. government found out about that, I might not have the opportunity to buy you dinner in the States." My message was clear: I'd use this country's muscular intellectual protection laws to nip his copying in the bud, and his chances of getting a U.S. visa would be nil.

As a Chinese-born engineer and business owner, I understand the temptation to copy, especially in a country like China, where the newly minted capitalists are striving to catch up. It's enticing to copy from a country so rich in invention and well-capitalized R&D. It is very difficult and expensive to create something, and it takes a long time. Even then, the thing you create may fail.

There are a hundred ways to rationalize taking what isn't yours, but at the end of the day, it's no better than stealing someone's iPhone. There's a price to pay, both personally and for the organization if you're caught. And as Western nations tighten enforcement, the likelihood of getting caught increases.

Between inventing new technologies and copying others' work, China needs to find a third way -- one that builds on previous ideas but utilizes them in a wholly original way.

Everything, even a failed invention, has a purpose. Think of the Post-It note, invented when a scientist trying to develop an ultra-strong glue instead created a "low-tack" reusable adhesive. Consider Viagra, repurposed as a drug for erectile dysfunction when it disappointed its creators in trials as a heart medication. What is useless in one application can be brilliant in another; the third way.

This is not a new idea. The science of bionics is based on applying and repurposing biological systems from nature and adapting them to modern technology. A bird's aerodynamic wing, the ability of bees to swarm without running into each other, an ostrich's back-jointed knee -- all of these have been borrowed as jumping-off points for invention.

China doesn't have to reinvent the wheel every time. Thinking in terms of this third way could be a step in a better direction.

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