Smith N., (2018), “**Big Tech Sets Up a ‘Kill Zone’ for Industry Upstarts”,** *bloomberg.com*

Today’s star companies hire the best engineers and copy the novel ideas of startups, choking off potential competition.

Back in the early days of digital photography, I used a website called Picasa to organize and share my photos. It was like a whole new world opened up to me — suddenly I could get feedback from much more experienced and skilled photographers halfway around the world, discover their work and find visual inspiration. But by the time I started using it, Google had already acquired the company. During the next few years, the app seemed to stagnate — there were rumors that Google was starving it of resources, and users drifted away. In 2016 Picasa was killed off for good, and anyone who still had photos there had them moved to Google Photos — a site I have never heard of anyone using.

Of course, that didn’t signal the end for online photo sharing — Instagram has become everything Picasa ever was, and much more. The nature of network effects means that it’s hard for multiple photo sharing sites to exist — everyone has an incentive to congregate on the site that has the most users. But if Google had put more resources into Picasa — or failed to acquire it in the first place, and left its destiny in the hands of its founders — it might have won the market instead of Instagram, which received large and sustained investment after being acquired by Facebook. And Picasa’s acquisition, and subsequent decline, was a powerful demonstration of big tech companies’ ability to devour and destroy promising young startups. Similar things have happened to some other companies in the social-media space.

People in the industry are starting to worry about this phenomenon. O’Reilly Media founder Tim O’Reilly talks of big tech companies “eating the ecosystem.” Others are talking about a “kill zone,” where new and innovative upstarts are throttled. For some startup founders, acquisition by a big company is the dream — they’re happy to walk away with a small fortune and move on to the next stage of their careers. But there’s a danger that big companies, being less emotionally invested in the companies they acquire, will leave them to wither on the vine.

And even more importantly, a kill zone can result not from acquisition, but from the threat of overwhelming competition. If founders believe that big companies will copy their innovations cheaply and compete them out of the market, they’ll never spend the time and effort to create those innovations in the first place.

A third way big tech can kill startups is by hiring all the best engineers. Technology ecosystems thrive on talent, and when Google and Facebook and Amazon are offering unbeatable compensation packages with strong job security and plenty of perks and benefits, startups might have to scrounge for the scraps.

Do kill zones really exist? Researchers have been trying to answer that question. Facebook commissioned a study by consultant Oliver Wyman that concluded that venture investment in the technology sector wasn’t lower than in other sectors, which led Wyman to conclude that there was no kill zone.

But economist Ian Hathaway noted that looking at the overall technology industry was too broad. Examining three specific industry categories — internet retail, internet software and social/platform software, corresponding to the industries dominated by Amazon, Google and Facebook, respectively — Hathaway found that initial venture-capital financings have declined by much more in the past few years than in comparable industries. That suggests the kill zone is real.

A recent paper by economists Wen Wen and Feng Zhu reaches a similar conclusion. Observing that Google has tended to follow Apple in deciding which mobile-app markets to enter, they assessed whether the threat of potential entry by Google (as measured by Apple's actions) deters innovation by startups making apps for Google's Android platform. They conclude that when the threat of the platform owner's entry is higher, fewer app makers will be interested in offering a product for that particular niche. A 2014 paper by the same authors found similar results for Amazon and third-party merchants using its platform.

If innovation is being deterred, it's a bad thing. The U.S. has experienced a decline in the number of high-growth companies since 2000, contributing to a reduction in business dynamism. Nor are the big platform owners necessarily picking up the slack — if the mere threat of their competition is enough to generate a kill zone, they may never end up entering many of the new markets or offering new products. The innovation simply won't happen.

What is to be done? Breaking up big tech companies wouldn't help, since the power of network effects would simply result in the re-establishment of one dominant platform in each sector. Economist and antitrust consultant Hal Singer suggests that the Federal Trade Commission enforce a nondiscrimination standard on platform companies, forcing them to treat third-party providers the same as their own competing products or services. That seems like the best place to start. If that's not enough to negate the kill zones, tax breaks or other policies to help startups compete might be in order. Big technology companies aren't necessarily bad, but they shouldn't be allowed to close the market off to young and innovative upstarts.

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