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A Local Revolution?

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Recently I realized I'd been holding two ideas in my head that would explode if combined.

The first is that startups may represent a new economic phase, on the scale of the Industrial Revolution. I'm not sure of this, but there seems a decent chance it's true. People are dramatically more productive as founders or early employees of startups—imagine how much less Larry and Sergey would have achieved if they'd gone to work for a big company—and that scale of improvement can change social customs.

The second idea is that startups are a type of business that flourishes in certain places that specialize in it—that Silicon Valley specializes in startups in the same way Los Angeles specializes in movies, or New York in finance. [1]

What if both are true? What if startups are both a new economic phase and also a type of business that only flourishes in certain centers?

If so, this revolution is going to be particularly revolutionary. All previous revolutions have spread. Agriculture, cities, and industrialization all spread widely. If startups end up being like the movie business, with just a handful of centers and one dominant one, that's going to have novel consequences.

There are already signs that startups may not spread particularly well. The spread of startups seems to be proceeding slower than the spread of the Industrial Revolution, despite the fact that communication is so much faster now.

Within a few decades of the founding of Boulton & Watt there were steam engines scattered over northern Europe and North America. Industrialization didn't spread much beyond those regions for a while. It only spread to places where there was a strong middle class—countries where a private citizen could make a fortune without having it confiscated. Otherwise it wasn't worth investing in factories. But in a country with a strong middle class it was easy for industrial techniques to take root. An individual mine or factory owner could decide to install a steam engine, and within a few years he could probably find someone local to make him one. So steam engines spread fast. And they spread widely, because the locations of mines and factories were determined by features like rivers, harbors, and sources of raw materials. [2]

Startups don't seem to spread so well, partly because they're more a social than a technical phenomenon, and partly because they're not tied to geography. An individual European

manufacturer could import industrial techniques and they'd work fine. This doesn't seem to work so well with startups: you need a community of expertise, as you do in the movie business. [3] Plus there aren't the same forces driving startups to spread. Once railroads or electric power grids were invented, every region had to have them. An area without railroads or power was a rich potential market. But this isn't true with startups. There's no need for a Microsoft of France or Google of Germany.

Governments may decide they want to encourage startups locally, but government policy can't call them into being the way a genuine need could.

How will this all play out? If I had to predict now, I'd say that startups will spread, but very slowly, because their spread will be driven not by government policies (which won't work) or by market need (which doesn't exist) but, to the extent that it happens at all, by the same random factors that have caused startup culture to spread thus far. And such random factors will increasingly be outweighed by the pull of existing startup hubs.

Silicon Valley is where it is because William Shockley wanted to move back to Palo Alto, where he grew up, and the experts he lured west to work with him liked it so much they stayed. Seattle owes much of its position as a tech center to the same cause: Gates and Allen wanted to move home. Otherwise Albuquerque might have Seattle's place in the rankings. Boston is a tech center because it's the intellectual capital of the US and probably the world. And if Battery Ventures hadn't turned down Facebook, Boston would be significantly bigger now on the startup radar screen.

But of course it's not a coincidence that Facebook got funded in the Valley and not Boston. There are more and bolder investors in Silicon Valley than in Boston, and even undergrads know it.

Boston's case illustrates the difficulty you'd have establishing a new startup hub this late in the game. If you wanted to create a startup hub by reproducing the way existing ones happened, the way to do it would be to establish a first-rate research university in a place so nice that rich people wanted to live there. Then the town would be hospitable to both groups you need: both founders and investors. That's the combination that yielded Silicon Valley. But Silicon Valley didn't have Silicon Valley to compete with. If you tried now to create a startup hub by planting a great university in a nice place, it would have a harder time getting started, because many of the best startups it produced would be sucked away to existing startup hubs.

Recently I suggested a potential shortcut: pay startups to move. Once you had enough good startups in one place, it would create a self-sustaining chain reaction. Founders would start to move there without being paid, because that was where their peers were, and investors would appear too, because that was where the deals were.

In practice I doubt any government would have the balls to try

this, or the brains to do it right. I didn't mean it as a practical suggestion, but more as an exploration of the lower bound of what it would take to create a startup hub deliberately.

The most likely scenario is (1) that no government will successfully establish a startup hub, and (2) that the spread of startup culture will thus be driven by the random factors that have driven it so far, but (3) that these factors will be increasingly outweighed by the pull of existing startup hubs. Result: this revolution, if it is one, will be unusually localized.

Notes

[1] There are two very different types of startup: one kind that evolves naturally, and one kind that's called into being to "commercialize" a scientific discovery. Most computer/software startups are now the first type, and most pharmaceutical startups the second. When I talk about startups in this essay, I mean type I startups. There is no difficulty making type II startups spread: all you have to do is fund medical research labs; commercializing whatever new discoveries the boffins throw off is as straightforward as building a new airport. Type II startups neither require nor produce startup culture. But that means having type II startups won't get you type I startups. Philadelphia is a case in point: lots of type II startups, but hardly any type I.

Incidentally, Google may appear to be an instance of a type II startup, but it wasn't. Google is not pagerank commercialized. They could have used another algorithm and everything would have turned out the same. What made Google Google is that they cared about doing search well at a critical point in the evolution of the web.

[2] Watt didn't invent the steam engine. His critical invention was a refinement that made steam engines dramatically more efficient: the separate condenser. But that oversimplifies his role. He had such a different attitude to the problem and approached it with such energy that he transformed the field. Perhaps the most accurate way to put it would be to say that Watt reinvented the steam engine.

[3] The biggest counterexample here is Skype. If you're doing something that would get shut down in the US, it becomes an advantage to be located elsewhere. That's why Kazaa took the place of Napster. And the expertise and connections the founders gained from running Kazaa helped ensure the success of Skype.

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