Reflections on technology from Davos 2020
From artificial intelligence, 5G, and reskilling to social responsibility and climate change—the opportunities and challenges of new technology were front and center at Davos.

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Davos is a candy store for the curious. But the sheer number of ideas generated—from those in dynamic presentations to deep discussions in the back corner of a room—can be overwhelming. Here are five reflections that struck us as particularly meaningful.

1. We're on the edge of the next wave of computing power

Tech was dominant at Davos—a cursory look at the storefronts on the main promenade populated with the world's biggest tech companies made that clear. But what was most striking was that shifts in tech's power and usability are ushering in some big changes:

- **Ease of use.** At one breakfast, Microsoft CEO Satya Nadella predicted that 500 million apps will be developed in the next five years because tech is becoming so much easier to use. That allows "citizen developers," as Nadella referred to them, to create many more applications. This data point helped to underscore the trend toward democratization of technology.

- **Greater accessibility.** While quantum computing generated plenty of buzz and excitement, the more serious conversations revolved around 5G. With 5G ramping up and the implications more clearly visible, and with the shift of so much of today's high-performance computing to the cloud, massive increases in connectivity speeds will revamp how people and organizations access the internet. Combined with tech's increasing ease of use, 5G is expected to kick off a new wave of innovation, especially in Industry 4.0, but in many other areas as well. These developments in turn will make it increasingly attractive—and necessary—for companies to build new businesses.

With technology moving strongly into the mainstream, the big story emerging is that tech is an enterprise issue, not limited to just the CIO or CDO. Capturing the value from technology at scale requires a significant new IT role. With the democratization of tech, today's leaders—particularly CEOs—need to have a clear technology agenda that incorporates a comprehensive transformation across three areas: reimagining IT's role in creating value, rethinking how it delivers its capabilities, and future-proofing its foundations.

2. Corporations are becoming educators and making a commitment to lifelong learning

As tech and artificial intelligence (AI) tools become better and easier to use—some said that using AI will soon be like using spreadsheets—the business side can work with them more easily. That is leading to a drive toward insourcing, because it's becoming much easier, and more necessary, for tech and business to work together.

This move toward greater consumerization of tech is also driving a trend to increase learning and reskilling, particularly on the front lines where people need to know how to use tech and

maximize its value. One large tech company in the Netherlands, for example, trained almost 40 percent of its workforce, most of them engineers, to write their own code.

Many executives spoke about the real need to constantly educate and train workers as well as what leadership will look like in tomorrow's more tech-enabled company. Given this reality, one executive talked about finding people with high "learning quotients." Historically, companies have screened for skills and experience. But it is becoming less important to know, for example, specific computer languages than to have the intrinsic ability to learn and learn again. Several companies talked about <u>academies</u> they had set up to make this systematic. Corporations are becoming educators.

<u>This drive extended to leaders</u>, who are asking themselves how they can keep learning. Many understand that to challenge their own organizations and successfully lead them, they must stay on top of the changes. And because things are moving and changing so quickly, the need to keep learning never ends.

3. Companies are aware of the need for tech leadership around social responsibility

For all the excitement about technology, there was significant concern and thoughtful discussion about how to think through all the second- and third-order, perhaps even unintended, consequences of the technologies companies are scaling. They realize they are under scrutiny and need to provide more transparency on how their data and tech are being used and what their algorithms are doing.

This translated into people thinking hard about bias and "explainability," for example. There was a real sense that companies must take the lead in coming up with thoughtful solutions. They're thinking in terms of new kinds of multifunctional teams—data scientists, engineers, lawyers, ethicists, regulators, and many more—working together to figure out the problems and how to use <u>tech for good</u>.

This concern about technology figured in discussions of the geopolitical sphere as well. Both the United States and China are investing at high speed in technology infrastructure. But with 5G, for the first time, there is no agreement on global protocols. There is a concern that the internet is going to become the "splinternet."

4. AI is getting real

While some people expressed healthy skepticism about AI's impact, we were struck by how many real examples there are of enterprises scaling AI. Whether in process acceleration or mining throughput, AI at scale is really happening, even at large incumbent companies. Two years ago, it would have been cool to have a single use case and get a proof of concept off the ground. We now have 1,000 use cases for deploying AI—400 in automotive alone.

Key to this shift is a deeper understanding that when companies implement AI, they need to pay particular attention to changing processes and how people work with the technology. A change in tech requires a change in the operating model. People are accepting the reality that, to gain full value from technology, for every dollar spent on it, multiple dollars need to be spent on change management. Our own <u>experience and research</u> have derived a set of necessary core practices to capture value at scale, including aligning business, analytics, and IT leaders on the

potential value at stake; investing in talent, such as <u>translator expertise</u>; and ensuring that <u>business staff and technical teams</u> have the skills necessary for successful scaling.

5. Technology has a growing role in addressing climate change

The increasing sophistication and usability of technology is leading to some promising developments in terms of addressing <u>climate change</u>. One entrepreneur, for example, is equipping ships with high-tech sails, which he claims can reduce their energy consumption by 20 percent. Based on the deep-learning tech developed for the America's Cup, it can predict when wind is coming and from which direction, and then automatically open a sail and position it to best use the wind.

In another example, the open-banking movement is leading to an open-carbon-data movement. A number of players are using technology and AI to build the technical infrastructure to support the development of financial instruments that facilitate carbon trading. If someone wants to release a "green bond," for example, to raise capital for a program to reduce emissions, sensors can be applied to track and report on whether that company is meeting its stated goals and obligations. That data can then be tracked in an open marketplace.

These ideas and developments from Davos left us with a sense of great optimism about the role technology can play in improving not just business but people's lives as well.

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