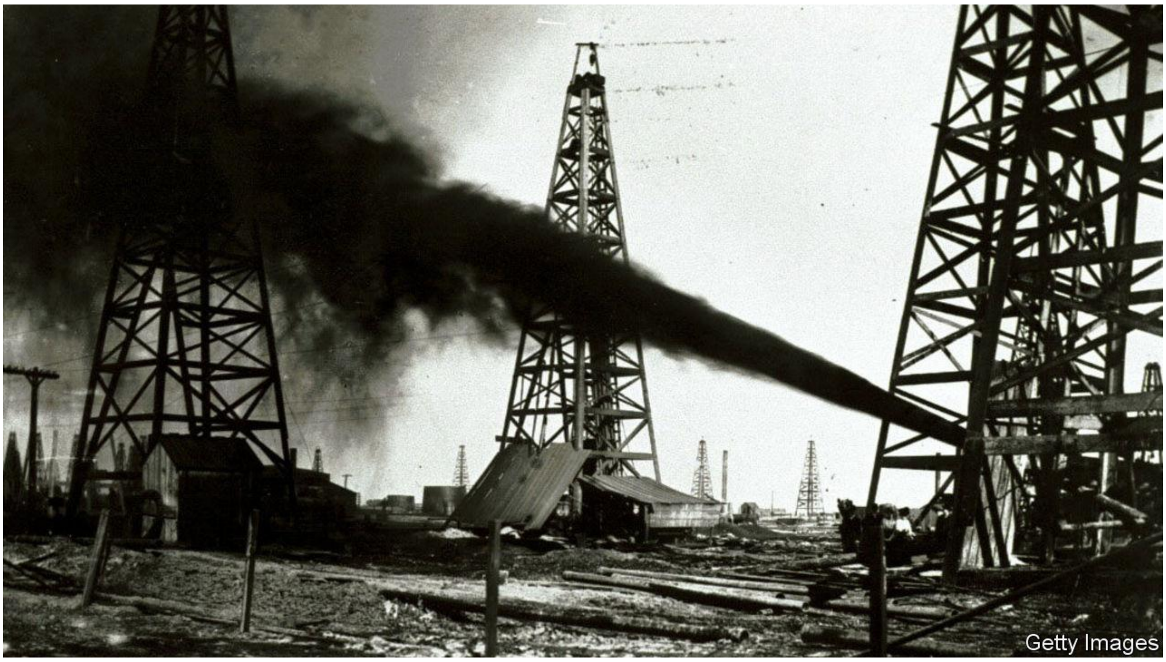
Oil rush

# Tech firms ramp up efforts to woo the energy industry

*Amazon, Google and Microsoft see old industrial giants as a new source of income*

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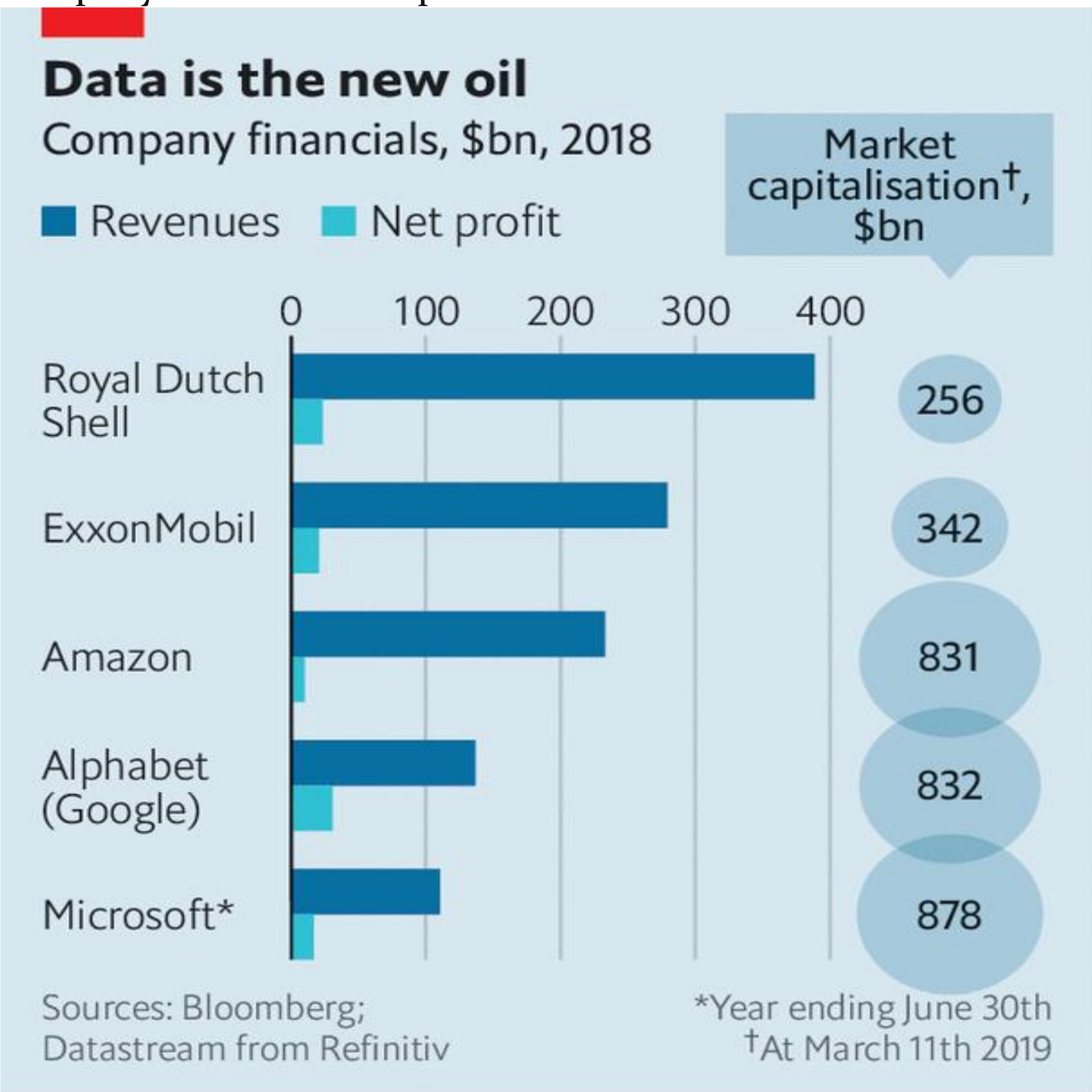
A giant hotel in Houston teemed with oil-and-gas executives on March 11th, the start of a cera Week. ihs Markit, a research firm which organised the shindig, lined up America's energy secretary, the chief executives of bp and Chevron (two of the world's largest oil companies), and other luminaries. Among the dark suits was an open-collared newcomer: Andy Jassy, head of Amazon Web Services. Speaking to a vast ballroom, he extolled the cloud-computing giant's virtues of moving quickly and learning from failure. Mr Jassy was there not just to offer management advice to what were once the world's most valuable companies. He was also after their custom.

Energy companies are keen to produce oil and gas more efficiently, as they grapple with volatile prices and uncertain long-term demand. Digital investments promise to cut costs and boost output. Tech giants like Amazon, Microsoft and Alphabet, as well as a clutch of startups, want to help. For all of Silicon Valley's professed support for clean power over fossil fuels, the energy industry represents a huge opportunity. Oil companies' valuations are dwarfed by tech firms', but their coffers remain deep (see chart).

Countless industries claim that big data and artificial intelligence (ai) will usher in new prosperity. The trend in oil and gas is nevertheless notable, partly because it is marked, partly because it comes late. For years, many companies remained focused on increasing reserves of oil, not extracting it cost-efficiently. Managers struggled to use data siloed in different parts of the company or in different parts of the world.



The Economist

That is changing. Abundant shale oil has made the hunt for reserves less urgent than the need to protect profits. Shale also highlights the utility of new analytics, says Paul Goydan of bcg, a consultancy, as data gush from thousands of wells studded through Texas, North Dakota and other rich fields. Falling costs of sensors, storage and computing power have made digital investments even more attractive.

Early projects are starting to bring results. bp is combining real-time information from sensors with its own models and analytics to optimise output—it estimates such digital tools boosted oil production by more than 30,000 barrels per day last year. Yuri Sebregts, the chief technology officer for Shell, says it could take months for a geoscientist to map faults underground. Software can now sort through seismic data, performing the same task in a few hours for about $20.

As such efforts ramp up, energy firms are pairing in-house expertise with that of the tech industry. Microsoft has courted them the longest. In February ExxonMobil announced that its sprawling shale operations in the Permian basin, in Texas, would use Microsoft's cloud, ai and other services. That may help ExxonMobil to drill and deploy staff more efficiently, and limit methane leaks. Amazon is trying to catch up. The size of its oil-and-gas team has tripled in recent years, and the company is working with energy giants such as Halliburton and Shell. In Houston it showed off data-storage kit that was continuously showered with water, to prove its mettle in inhospitable oilfields.

Alphabet, Google's parent company, is a relative laggard, but hopes to change that. Last year Google Cloud hired Darryl Willis, a former bpexecutive, to lead a new energy group. He estimates that the industry is using 1-5% of available data. Alphabet has signed deals with Total of France, as well as Anadarko, an American oil company that is testing automated drilling and has an ai specialist on its board of directors.

Energy companies feel somewhat jittery about working with large tech firms—and not just because the Silicon Valley stars have outshone them. Automation raises the risk of hacking. Tech firms' ballooning ambitions raise eyebrows. One questioner asked Mr Jassy if Amazon would itself start producing oil and gas. He said no, as the room giggled nervously.

It is not just the oilmen who are uneasy about the partnerships. Amazon, Microsoft and Google rely on clever young coders, who dislike working for controversial industries. "We are a partner and we follow the energy partner's needs," says Caglayan Arkan, who oversees Microsoft's work with the energy sector. But in February Microsoft employees demanded that it cancel a contract to sell augmented-reality headsets to America's military. Last year Google decided not to renew a contract with the Pentagon, after some staff argued the company should not be in the "business of war". Tech workers may yet insist they not be in the business of fossil fuels either.