Cleveland Clinic, IBM ink a ten-year quantum computing deal—here are 2 ways the tech can be used in healthcare

Article

The news: Cleveland Clinic and **IBM** struck a ten-year partnership to use AI and quantum computing tech to facilitate healthcare research initiatives, like precision medicine and drug discovery. As part of the deal, Cleveland Clinic will get to install IBM's first private sector quantum computing system.

Here's how it works: Quantum computers process information in a different way than traditional computers: For example, quantum algorithms can outperform regular computers in tackling issues like drug discovery, running searchers through all possible molecules at unimaginable speed.

Why this could succeed: It appears IBM is learning from its shuttered Watson Health venture: Instead of tackling a wide variety of AI problems, it's narrowing its focus on cloud computing.

The bigger picture: Quantum computing's presence in healthcare is still unfolding—besides drug discovery, hospitals could leverage the tech for two key use cases:

- **Diagnostics.** Quantum computing can considerably improve low resolution and replicability of medical imaging techniques like CTs and MRIs, according to IBM. This means the tech could eliminate the need for unnecessary imaging, which costs hospitals and healthcare organizations millions annually.

Health insurance pricing models. When determining health insurance premiums, payers take population health levels, disease risks, and treatment costs into account—which can be an incredibly complex process, per IBM. Quantum computing can make payers' risk analysis models more accurate and give them a more "granular" approach than ever before.