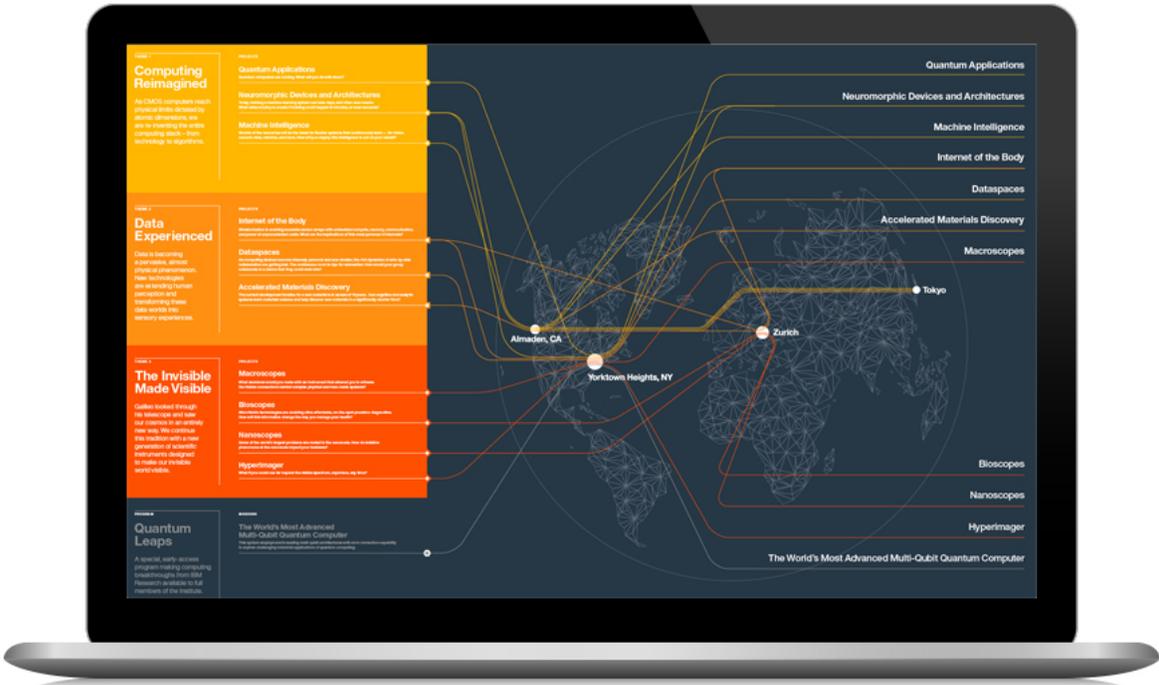


IBM announces cloud-based quantum computing platform

May 4 2016, by Bob Yirka



(Tech Xplore)—IBM has announced the development of a quantum computing platform that will allow users to access and program its 5 qubit quantum computer over the Internet. Called the IBM Quantum Experience, it is, the company claims, the first ever system to allow outside users to work with a quantum computer via the Cloud.

The Cloud and computer, in this instance is an IBM facility in New York with a team that has been focused on developing a true [quantum](#) computer. The current machine is housed in an extremely cold storage facility and those who wish to use it must learn to use the interface that has been developed and the programming language that IBM has created to go along with it—it looks, team members note, like writing music; commands are entered by adding symbols to a staff.

Quantum computer technology is still, of course, in its infancy—no one has yet built such a machine that can compete with the current digital models, though when they do, it will be called quantum supremacy—most in the field agree that there is still a long way to go before that happens. In the meantime, researchers are building computers that are both analog and quantum, which reduces much of the error correction that is inherent in [quantum computing](#). Most in the field do not expect quantum supremacy to be reached until engineers figure out a way to dramatically increase the number of qubits being used, to perhaps 50, as opposed to the five, seven, eight or nine that have been developed thus far.

IBM is not alone in trying to figure out how to build a true quantum computer, Google has made clear its ambitions (building a quantum computer that uses 100 qubits in just a few years time) as have several college groups. Most agree that as the technology improves, so too will the number of groups working on creating something truly useful—machines able to take advantage of the unique special properties of [quantum physics](#), such as superposition, are expected to be able to do things that modern computers cannot, such as very accurately forecast the weather.

In its announcement, IBM explains its reasoning for bringing quantum computer programming to people who do not have access to such systems—the more people that are exposed to such machines and the

skill sets that are required to program them, they believe, the sooner we will all be able to benefit from the development of such machines.

More information: www.research.ibm.com/quantum/

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