MOORE’S LAW: As computers get smaller, they get more powerful, essentially doubling in power and halving in energy use.

QUANTUM MECHANICS TAKES HOLD!

Things in the quantum world behave very differently than they do on larger “classical” scales.

SUPERPOSITION

Quantum objects can be in a “superposition” of states — essentially here and there, up and down, on and off.

UNCERTAINTY

Quantum laws mean you can’t determine a system without altering it.

ENTANGLEMENT

Quantum objects can be “entangled,” or strongly correlated with each other, even over large distances. Einstein called this “spooky.”

We can harness quantum phenomena to create...

QUANTUM INFORMATION TECHNOLOGIES

QUANTUM COMPUTERS

We can harness quantum computers to outperform classical computers. Quantum bits, called qubits, can be both 1 and 0.

QUANTUM CRYPTOGRAPHY

Quantum cryptography capitalizes on the quantum laws that prevent observers from eavesdropping. Instantaneous secure communication?

QUANTUM SENSORS

Exploit quantum mechanics for unprecedented precision —

QUANTUM COMPUTERS CAN...

- Get extremely fast calculations
- Protect your privacy
- Achieve the greatest sensitivity —

We do not yet know all the technologies that will emerge from quantum information. But we do know they’ll be

UNPRECEDEDENTED AND POWERFUL!