**QUANTUM COMPUTERS**

*(<http://www.futuretechnology500.com/index.php/future-computers/)>*

Future computers are on the forefront of becoming mainstream. If you think computing is all about silicon chips and bandwidth then you may want to think again in a few years as this will be irrelevant. Future quantum computers will make today’s desktops and laptops seem like wooden pegs and balls attached to sticks by strings. In the near future, computers will use nanotechnology to shrink the size of silicon chips, increasing speed and power with parallel processing.

But, this can go on only so long before a new technology steps in. The future quantum computers that are not based upon digital 1’s and 0’s are coming. Instead these future computers are based upon qubits (quantum bits). The power of magnetic forces at a subatomic scale will unleash the exponential power of future computers.

Scientists and researchers have always dreamed of artificial intelligence and computational neural networks and in the near future this will be so. Right now, silicon chips provide a limitation that will be overcome with the use of quantum mechanics in computing.

By manipulating the rotation of atoms, data can be transmitted and stored at an unprecedented rate. Qubits and kets are what future computers will be measured in, not gigabits or terabytes. Currently there is not enough computational power to pull off true artificial intelligence. There is also not enough computational power to decrypt complicated encryption methodologies.

But, with the exponential power of future quantum computers aided by nanotechnology and artificial intelligence there will be. Future computers will no longer have RAM or DRAM but rather MRAM (Magnetoresistive Random Access Memory) which is a present reality.

In today’s world, disabled people are being trained to work with computers using only their minds. When DARPA meets Sony and the brain-computer barriers come tumbling down, everyone will be able to command computers, robots, bionics and other quantum based electronics using only our minds. Future computers will interact with us on a neural level.

With the help of the qubit and the qubyte that can process 0’s and 1’s simultaneously in a process known as superposition, processing power will increase exponentially. Today’s gigaflops will be replaced by tomorrow’s teraflops, petaflops, exaflops all the way to lumaflops and beyond to words that haven’t even been created yet.

Future computers will allow us to communicate with others from a distance just by thinking. Researchers at IBM, UC Santa Barbara, Yale, Sony and many other companies are working on this now. Did I also mention DARPA is working on this?

Now, this may be scary for some people to know that the military is working on the next generation of future computers which could cause a doomsday scenario among the Superpowers. Or that countries that are not currently Superpowers could become ones by developing quantum computers for the military that become the bullies of the world.

But there is a more likely scenario. And this scenario is that with the advent of future computers the world will become a more democratic place. We are already seeing the revolts in the Middle East and Far East because of the Internet and Social Media.

As communication lines are opened up and data is spread fast, the barriers between upper class and lower and middle classes start falling. Dictators who restrict communications cannot stop future technology from rising and people across the world from using new technology.

Because of the properties of quantum entanglement, communications around the world will become instantaneous and without geopolitical boundaries. Coups and revolts will be settled quickly as problems will be resolved with instantaneous communication globally. Future computers will aid in space travel, communications, medical technology and practically every level of our day to day lives. And this future is not as far away as you may now think.