

THE FUTURE IS NOW!

A gasoline engine has 20,000 individual parts. An electrical motor has 20. Electric cars are sold with lifetime guarantees and are only repaired by dealers. It takes only 10 minutes to remove and replace an electric motor. Faulty electric motors are not repaired in the dealership but are sent to a regional repair shop that repairs them with robots. Your electric motor malfunction light goes on, so you drive up to what looks like a Jiffy-auto wash, and your car is towed through while you have a cup of coffee and out comes your car with a new electric motor!

Gas stations will go away. Parking meters will be replaced by meters that dispense electricity. Companies will install electrical recharging stations; in fact, they've already started. You can find them at select Dunkin Donuts locations.

Most (the smart) major auto manufacturers have already designated money to start building new plants that only build electric cars.

Coal industries will go away. Gasoline/oil companies will go away. Drilling for oil will stop. So, say goodbye to OPEC!

Homes will produce and store more electrical energy during the day and then they use and will sell it back to the grid. The grid stores it and dispenses it to industries that are high electricity users. Has anybody seen the Tesla roof?

A baby of today will only see personal cars in museums.

The FUTURE is approaching faster than most of us can handle.

In 1998, Kodak had 170,000 employees and sold 85% of all photo paper worldwide. Within just a few years, their business model disappeared, and they went bankrupt. Who would have thought of that ever happening?

What happened to Kodak will happen in a lot of industries in the next 5-10 years and, most people don't see it coming.

Did you think in 1998 that 3 years later, you would never take pictures on film again? With today's smart phones, who even has a camera these days?

Yet digital cameras were invented in 1975. The first ones only had 10,000 pixels but followed Moore's law. So as with all exponential technologies, it was a disappointment for a time, before it became way superior and became mainstream in only a few short years. It will now happen again (but much faster) with Artificial Intelligence, health, autonomous and electric cars, education, 3D printing, agriculture and jobs.

Forget the book, Future Shock, welcome to the 4th Industrial Revolution.

Software has disrupted and will continue to disrupt most traditional industries in the next 5-10 years.

UBER is just a software tool, they don't own any cars, and are now the biggest taxi company in the world! Ask any taxi driver if they saw that coming.

Airbnb is now the biggest hotel company in the world, although they don't own any properties. Ask Hilton Hotels if they saw that coming.

Artificial Intelligence: Computers become exponentially better in understanding the world. This year, a computer beat the best Go-player in the world, 10 years earlier than expected.

In the USA, young lawyers already don't get jobs. Because of IBM's Watson, you can get legal advice (so far for right now, the basic stuff) within seconds, with 90% accuracy compared with 70% accuracy when done by humans. So, if you study law, stop immediately. There will be 90% fewer lawyers in the future, (what a thought!) only omniscient specialists will remain.

Watson already helps nurses diagnosing cancer, it's 4 times more accurate than human nurses.

Facebook now has a pattern recognition software that can recognize faces better than humans. In 2030, computers will become more intelligent than humans.

Autonomous cars: In 2018 the first self-driving cars are already here. In the next 2 years, the entire industry will start to be disrupted. You won't want to own a car anymore as you will call a car with your phone, it will show up at your location and drive you to your destination. You will not need to park it, you will only pay for the driven distance and you can be productive while driving. The very young children of today will never get a driver's license and will never own a car.

This will change our cities, because we will need 90-95% fewer cars. We can transform former parking spaces into parks.

1.2 million people die each year in car accidents worldwide including distracted or drunk driving. We now have one accident every 60,000 miles; with autonomous driving that will drop to 1 accident in 6 million miles. That will save a million lives plus worldwide each year.

Most traditional car companies will doubtless become bankrupt. Traditional car companies will try the evolutionary approach and just build a better car, while tech companies (Tesla, Apple, Google) will do the revolutionary approach and build a computer on wheels.

Look at what Volvo is doing right now; no more internal combustion engines in their vehicles starting this year with the 2019 models, using all electric or hybrid only, with the intent of phasing out hybrid models.

Many engineers from Volkswagen and Audi are completely terrified of Tesla and so they should be. Look at all the companies offering all electric vehicles. That was unheard of, only a few years ago.

Insurance companies will have massive trouble because, without accidents, the costs will become cheaper. Their car insurance business model will disappear.

Real estate will change. Because if you can work while you commute, people will move farther away to live in a more beautiful or affordable neighborhood.

Electric cars will become mainstream about 2030. Cities will be less noisy because all new cars will run on electricity. Cities will have much cleaner air as well. (Can we start in Los Angeles, please?)

Electricity will become incredibly cheap and clean.

Solar production has been on an exponential curve for 30 years, but you can now see the burgeoning impact. And it's just getting ramped up.

Fossil energy companies are desperately trying to limit access to the grid to prevent competition from home solar installations, but that simply cannot continue - technology will take care of that strategy.

Health: The Tricorder X price will be announced this year. There are companies who will build a medical device (called the "Tricorder" from Star Trek) that works with your phone, which takes your retina scan, your blood sample and you breath into it. It then analyses 54 bio-markers that will identify nearly any Disease. There are dozens of phone apps out there right now for health purposes.

WELCOME TO TOMORROW; it actually arrived a few years ago.

Education is the most powerful weapon you can use to change the world!

Patrick McKinnon