

First man made stone and bone tools, later metal tools. Most of the beginning tools that our pioneers used were hand made. often the pioneer made his own tools from what resources were available. Gords were used as storage containers. Buckets were made of wood bound by rings of vines. As mankind used language we could communicate. Later writing evolved and painting. Later paper and books. Then the printing press. In times of peace libraries gathered knowledge.

**As mankind shared knowledge in cultures technology developed.**

Things were invented one item at a time. There were no nails, fasteners, screws, nuts or bolts. Instead of nails logs or beams were notched. Later a brace and bit was used to drill a big hole in wood joints and a wood pin tightly inserted. In many old houses these held up for over 100 years. The heavy thick metal things needed were made by a blacksmith. Some of these items were: horse shoes, pot hooks, fireplace hardware such as pot holders, pokers, hoes, shovels, axes, rakes, pitch forks, and horse harness hardware.

Light thing things were made by the white smith also called the tin smith. Examples are lanterns, pots, pails, candle holders, lamps, tubs, pans, corn planters, pitchers, cups, metal boxes.

Many items were made of animal parts. Animal bladders made excellent containers. Animal skin was used for clothing, straps, containers, coverings.

Clay was worked into pots, bowls, plates, storage bottles. Storage was a problem as insects and rodents would find and eat stored food. The tightly closed clay pot or bottle was a lifesaver. Food was often dried and hung up. Food was also salted, pickled, canned and kept cool. 1914 canneries produced many food products in tin cans



Ice was cut from the lake or pond and kept in an ice house. The Ice box. Later the iceman put a block of ice in the ice compartment (freezer) and the rest of the cabinet was kept cold. Under it was a pan to collect the melted ice water. If you came up on at night in your bare feet and the ice water pan was overflowing you had a rude freezing shock to your feet.

1916 refrigerator cost \$900 then by 1920 10,000 were sold, by 1925 75,000 were sold.

1910 Center Line and Warren soon had electricity and phones.

Baths were not undertaken much prior to piped in water because it was a big job to take one. First one had to have a large wash tub. It had to be filled with water usually one bucket at a time from a well. The water was usually not very warm. There was no bath room. The bath was done if one was in a main room and sometimes a blanket would be erected for a little privacy. Very little.



In the summer time it was easier to go skinny dipping in local lakes and ponds usually in the nude. Children both boys and girls often swam in the nude even in their teens and it was no big deal. Remember this was rural life and usually not crowded.

The boys didn't mess with the girls because if a girl complained there was a severe whipping in line for the boy. People were expected to act responsibly. Most folks had a big galvanized iron or canvass tub just big enough to sit in. First the father took his bath, then the mother, then each child. All of this was done with the same water. Then of course the kids had to empty it outside. By the time the baby got washed the water was so dirty that an old saying said "Be careful not to throw the baby out with the bath water."

Clothing washing was done first in a local stream. Then by heating water in a big pot outside. The clothes were stirred and poked by a wash stick. Also note that clothes got pretty vile with lice, insects and no toilet paper used by most people. Usually the water was brought to a boil or at least very hot. Some clothes were made from wool which had its own washing problems. Later a washing board was used when washing along with various tubs some of which were semi automated to agitate the clothing. Later ringers were added. Much later after the washing machine was invented in 1914 and electricity came in, electric washing machines made their ways into sheds and homes.

Light was by daylight and firelight and torchlight. A torch is a rod shaped piece of wood with flammable material on one end. Oiled paper and skins served as windows before glass. Oil lamps and candles and candle lamps The Light bulb meant we could have safe lighting. They replaced stinky and very dangerous oil lamps and candles. Edison in 1880 invented the long lasting filament and an entire lighting system. Others had worked on light bulbs since 1800. In our area electricity came in around 1910. At first the only electric item were electric bulbs.



1893 electric irons were the first commonly available electric appliance.

1890 18.9% of all women worked outside the home. 40.5% of single women were in the paid labor force, but just 4.6% of married women worked outside the home.

1900 Sewing needles could be bought at the general store.

1900 Among American women, 20.6% worked in the paid labor force. 43.5% of unmarried women held jobs; 5.6% of married women worked outside the home. Among wage-earning women in America, 50% were either farmhands or domestic servants.

1900 Two wheel bicycles were beginning to be popular

1904 tractor, 1904 ice-cream cones, 1916 Radio tuner invented.

The sewing machine did not need electricity. It saved women countless hours of time over hand sewing.

1908 Model T Automobile (see page on autos)

1908 first electric vacuum cleaner for home use

Ladies the bra was invented by Mary Jacob in 1913. These replaced corsets, before that take your best guess.

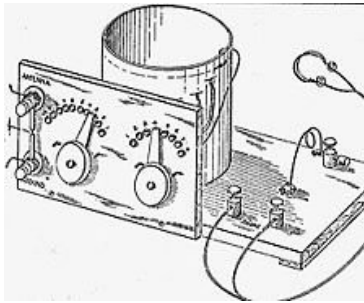
1914 electric washing machine

Long range communication. Was done by horse back and by mail. Signal Flags offered communication over distance as did signal lights as in the story of Paul Revere. Good long distance communication was made possible by The Telegraph Samuel F. B. Morse and his electromagnetic telegraph in 1832 and in 1844, when he built a line from Baltimore to Washington, D.C.

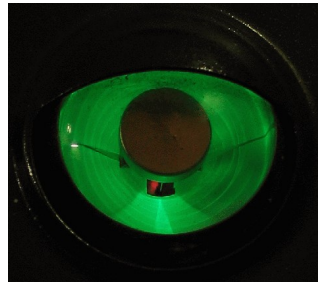


The Telephone. Wikipedia states "Credit for the invention of the electric telephone is frequently disputed, and new controversies over the issue have arisen from time-to-time. As with other great inventions such as radio, television, light bulb, and computer, there were several inventors who did pioneering experimental work on voice transmission over a wire and improved on each others ideas. An undisputed fact is that Alexander Graham Bell was the first to be awarded a patent for the electric telephone by the United States Patent and Trademark Office (USPTO) in March 1876. That first patent by Bell was the master patent of the telephone, from which all other patents for electric telephone devices and features flowed." Wikipedia

Radio was even greater. After a long history of inventions and improvements beginning in 1820 the Detroit station that became WWJ began program broadcasts beginning on August 20, 1920. Soon there were radios in every home. First there was the crystal set.



By 1922 there was a radio in most homes and 7 Michigan stations. One could make a crystal radio from some basic parts. And it would work. The magic eye radio tube on big sets helped you to select stations.



Television The first licensed stations began in Michigan in 1947

Cooking was first done outside over a fire. Later hanging pots were added.



Then the fire was moved inside when a good fireplace was built. This was followed by the wood stove.



This was followed by the Gas then electric stoves.

So When did fast food come to our area? There were a few hamburger places around including drive ins such as A&W on Van Dyke at Toepfer, Big Boy on Van Dyke. Ronnies on Van Dyke just S of 11 Mile Road. Around 1960. Peppies at 12 Mile and Van Dyke and MacDonaldis at 11 1/4 Mile and Van Dyke opened. That was followed by Hardies, Arbys, Roy Rogers, Jack in the Box.

Typewriters speeded up the processing of information



The computer. Beginning about 1640 many people learned and invented components that eventually became part of modern computers. Work progressed and electronic computers emerged in the 1940s. The Harvard Mark 1 began in 1944. This was followed by many huge machines. On April 7, 1964, IBM introduced the System/360. While a technical marvel, the main feature of this machine was business oriented. In 1975 the first personal computer was marketed in kit form. The Altair featured 256 bytes of memory. Bill Gates, with others, wrote a BASIC compiler for the machine. The next year Apple begins to market PC's, also in kit form. It includes a monitor and keyboard. The earliest RISC platforms become stable. In 1976, Queen Elizabeth goes on-line with the first royal email message. By 1977 stores begin to sell Personal Computers. IBM introduced it's PC in 1981 Radio Shack had its #1. In 1982 Commodore brought out the Vic20 with 3 k of ram, then the Commodore 64 with 64K of ram. Texas Instruments, Sinclair and Apple, and Atari were selling computers. Commodore Amiga (above) had only a floppy drive to start. The personal computer evolved to the present day notebooks above. Super computers and network servers speed information processing around the world.

The creation of the Internet has allowed individuals and groups to share, gather and distribute information all around the world. Electronic mail, electronic data recording using digital technology has revolutionized information storage and processing. One can at the time of this writing 2012 store 64 billion bytes of information on a portable USB stick smaller than a human little finger. The actual chip used is about the size of the finger nail on that finger. Pictures and music are now digitally recorded, processed printed, stored and can be transferred to anyone anywhere in seconds even to their portable cell phone.

You can see the progression of inventions in the phone, computer and automobile. Our cars are better faster, get better mileage than in the past but looking at the future they will be much better.

Pictures of our everyday inventions were not included because anyone can go to the library and get books on inventions and will see hundreds of pretty color pictures.

But there is something much more important going on. As a college professor who teaches IT (Information Technology) one sees other aspects to inventions. There is an ongoing change in our culture that is and will affect almost everyone especially our young people. Ease of living with machines doing the heavy work is obvious. But the office automation that has been going on along with office computers is not so obvious. Automation is not limited to the office but is going on in many fields. Too many organizations have put profit ahead of obligation to workers and their families.

Example remote electric meter readers. OK the electric company saves a tiny amount of money which it usually does not pass on to the consumer. But hundreds of meter readers are out of work and their families now have no income. The community benefits from these readers as they have other functions such as reporting hazards, occasionally saving lives etc. But worse now the electric company records your personal electric usage and records your personal activities 24 hours a day.

Of course surveillance cameras are being put in almost everywhere in public and private places even at traffic lights that can identify you and track your actions. RFIDs and Mu chips are replacing bar codes and in things (passports, drivers licenses, credit cards, clothing, tires, cars) and will soon enable Big Brother to track almost everything and everybody. Electronic money will soon almost replace paper money but is trackable and shut-offable by Big Brother. (see Vol 1 page 10)

Your personal phone, Internet, ATM, Bank transactions and credit card use are now tracked and recorded. (No I am not making this up. Although difficult to confirm this is true, especially the first two.) This may even include GPS locations and time. Lets put it another way just as in the movie "Enemy of the State" most your activities can be located tracked and recorded. Many of them for most of us are already being recorded as a standard homeland security practice. Personally, as I have nothing to hide, I don't care either way but do feel it is an invasion of my privacy. Of course privacy is already dead in our world. However in a totalitarian society those who read articles on bomb making or revolution may find themselves being considered an enemy of the state. In writing my history books I heard that Indians were promiscuous so I did an Internet search on Indian sex. Oh dear some of the stuff I saw was a real education even to an army veteran. I did not see anything about American Indians but rather much vulgar x rated stuff you wouldn't want your kids to see. But I am sure somewhere the feds have me listed as a sex pervert who likes Indian sex. Nothing is further from the truth I am a 70 year old senior citizen who writes history books and couldn't care less about sex.

OK privacy is dead and Big Brother may be watching. But now it is about to get worse. The agriculture economy was replaced by the industrial economy which was replaced by the service economy. The conservative American culture of the early and middle 1900s has been replaced by the entertainment culture. Children today spend more time watching TV than going to school. And what does TV offer them. Depending on the parent a few children get a high quality expanded education. But the majority get thousands of hours of educationally lacking even decrepit violence and sex ridden garbage topped off with a morally lacking couldn't care less attitude. As a college teacher I see many kids who are clueless, moral less, can't think, stand for nothing and are addicted to watching TV and endless texting to friends. Many of them even though they graduated from high school have not even acquired the equivalent of a 6<sup>th</sup> grade education in 1890. They can't make change for a \$20 dollar bill without a calculator and don't know who we fought in WWII or why and can't tell you which rights the Bill of Rights protects, but they can tell you who won on Idol last night. If you ask them how things work, such as a phone, or CD player they don't know. Worse they are almost totally uninformed about important current events and issues.

Back to inventions. We are entering a post human, trans-human era. Trans-human means using artificial parts. Ok We have clothing, glasses and now artificial legs, hearts, kidneys, hearing aids but increasingly more machine parts such as entire artificial robotic arms and legs, ear inserts, eye inserts, implanted chips that control Parkinson's. But soon we will have brain inserts for other things. Soon robotic parts will be put in humans. This will lead to a trans-human era. See Brave New World Trans-human on youtube. Scientists are growing human organs from animals that work in humans. They are actually growing new body parts. They are replacing human parts with robotic parts that are longer lasting.

The science of robotics is expanding. There are robots that you cannot tell apart from humans from 50 feet away. They are teaching machines how to learn. See my website [macombhistory.us](http://macombhistory.us) and also search youtube for robots, trans-human, future technology. Robotics may soon produce robots that have a better functioning body than the human body. Factories can be built where these robots can be built on a mass production basis. Imagine having a robot servant to do the work and tasks you do not wish to do.

AI (artificial Intelligence) is advancing. Many in the know are predicting machine intelligence that will surpass human intelligence within 30 years.

In a 1951 science fiction film *The Day the Earth Stood Still* inhabitants of the universe send a human like man and a robot to earth with a message to stop the violence and not to spread it. These indestructible robots were programmed to destroy weapons. In looking at what may be possible in the next 30 years one may wonder is this possible and could it be used to solve the violence problem humans have had for centuries. Robot police officers could be used in situations so that real humans don't have to risk their lives. Bomb squads already use little robots for this.

The future of inventions may be fascinating.

