



MONDAY MOTIVATOR

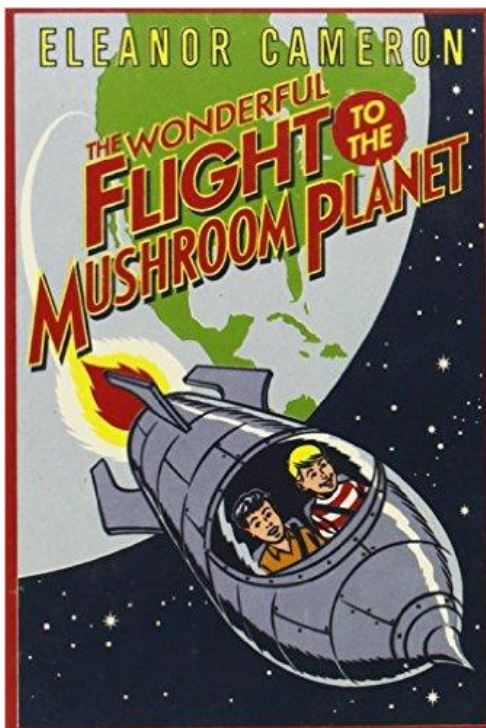
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MANAGEMENT CONSULTING GROUP / 800-242-1900

VOLUME 1 ISSUE 47

TECHNOLOGY PART ONE OF THREE

Welcome to our 47th edition of The Monday Motivator. In this issue we're going to explore TECHNOLOGY; specifically what it means to business. We'll look at what it was, what it is and what we're headed for. At the very least this is a 3 part fun read that takes us on a journey from 10,000 BC to the year 2100. This is a huge topic that can't be served in just one edition of our business journal so we're going to devote three editions to this study and review. In part one we're going to take a quick tour of how we got this far starting at about 10,000 BC and ending up in the year 1840. In part two we'll peek at what happened during the industrial age from 1840 to 1940. In part three we'll see what lies in store for the human race taking us to the year 2100.



This topic is one of my personal favorites. Since I was a boy of nine years old I have been fascinated by all things technology. From the endless hours of reading about two boys who travel to the alien planet Basidium in their homemade spaceship, to life on a working farm, my experiences let my mind roam the vast halls of imagination. Here I could actually hear voices from a tiny radio with only a tiny earpiece for sound. Next I was standing next to massive train engines that my grandfather took me to see at the railroad where he worked. Everything to me was a wondrous discovery.

For those born into a world where we've traveled to the moon, where cell phones and computers were the toys played with before age five, I feel they have not had the joy of experiencing how we arrived at such heights. We did it with only our collective intelligence added to our dauntless determination. Thus mankind was able to dream the really big dreams then make them happen.

When we use the word "technology" [Karehka Ramey](#) writes that "Technology is a body of knowledge devoted to creating tools, processing actions and extracting of materials. The term

“Technology” is wide and everyone has their own way of understanding the meaning of technology. We use technology to accomplish various tasks in our daily lives, in brief; we can describe technology as products, processes or organizations. We use technology to extend our abilities, and that makes people the most important part of any technological system.”

In this edition we will take a brief tour of what technology looked like starting long ago. We all take the use of fire for granted today but 500,000 years ago humans were just learning to make it, keep it and transport it. The use of fire later resulted in the creation of metals in addition to forming bricks and pottery. By 10,000 BC: Humans created the first boats including rafts, skin, hide and bark boats, kayaks, and dugouts. This might not sound like much to us today but back then this was a big deal. Think Apple Boats and imagine the line waiting to get one! Boats were a big business in the day. Boats allowed travel over water, on rivers and made it easier to move cargo or people from one place to another quickly. Later paddles and sails were invented making the boats self-propelled. Then about 8,000 BC people began to grow wheat, barley, peas and lentils instead of gathering them wild. By 7,000 BC they domesticated sheep, pigs and goats. By 6,000 BC they also domesticated cattle. Agriculture and farming had been developed. Business grew.



By 4,000 BC the yoke is invented to harness animals in order to pull heavy loads or accomplish hard work. At this time weaving also took place, creating crude cloth that could be used in many ways. All the newer developments were added to prior ones that aided in speeding up the innovations that made life a little easier and more predictable. Such advances also allowed society to stay in one place instead of constantly moving to follow animal herds or evade human enemies.

By 3,000 BC the ability to make metals allowed the plough to be invented and thus agriculture was expanded very quickly. This led to feeding more people using the same land over and over, eliminating the need for constant movement to find food. As we can see, most of what we call “technology” was really about tools, food, shelter, clothing and transportation prior to the industrial age and new businesses were a result. We modern humans tend to think of technology as a smart phone, 4k TVs, modern cars, airliners, satellites and space travel. None of this was even thought of 3,000 years ago. Just surviving was the key motivator back then. The average life span was only 33 years. Medicine, such as it was then, was only known to a few and nobody understood it very well.

By 3,000 BC the wheel as used on axels became the new technology. Everyone used them along with the yoke to move cargo and people over land. This was a huge advance in technology for the time. Think pickup trucks and imagine the lines at the wheel and axel maker’s shop! The technology of the day was not just the wheel. They were used in a number of applications but not

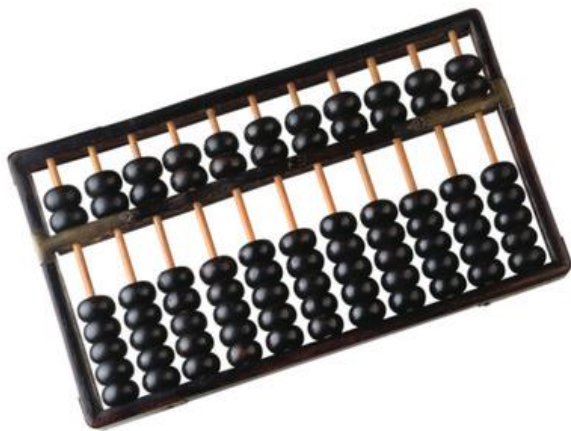
on an axle. The axle was the new technology! With it heavy loads could be moved with the aid of animals. Think the first trucking companies of the day with people lined up to hire them! Now there was a business! That sort of business is stronger today with ships, planes, trains and trucks.

From 4,500 BC forward technology started to move much more quickly, such as it was in those days. Because people no longer have to hunt and gather they can stay in one place. Cities are born. Societies start to form. Tribes are formed to tie common culture and language together. Bricks are used to build dwellings. Leaders are created called kings. Between 4500 and 3100 BC early cities developed in the region known as **Mesopotamia** along a river still called the Euphrates. The city of Uruk, today considered the oldest in the world, was first settled in c. 4500 BC and walled cities, for defense, were common by 2900 BC throughout the region.

By 2,560 BC the pyramids are built in Egypt. The largest required 2.3 million stone blocks with an average weight of 2.5 tons each. The three largest are in Giza and took over 20 years to construct. Writing is created. Laws are created to regulate social and business behavior with crimes and punishments put in writing for all to be aware of. Today we think of writing on an i7 PC or Mac computer. Back then just making dents in a clay tablet was high technology. And it was a business. Throughout history those who could read and write were held in high esteem.

By 1,500 BC astronomy, astrology, early physics, mathematics, law, **literature**, architecture, and sculpture becomes a reality. All these developments resulted in new business opportunities in a number of ways. Education was one of the more important additions to human civilization with the first university established in 1088 AD in Bologna, Italy and is still in operation today. I once visited this city and was blessed to be able to stand in the world's first medical auditorium at this university where they still teach surgery.

Food is stored for the lean times. Trade is formalized first with barter then with money coined by the city states and sanctioned by the governments of the day. Taxes are levied to pay for the protection of the city states and to provide for the common welfare of the people. Classes of society are formed from the royal courts to the merchants and finally to the ordinary people. Agreements and alliances are formed with and to the benefit of the many city states. Because of this organized military campaigns are formed to balance the differences between the haves and the have nots. This is still going on today as we are all well aware of.



In 2,400 BC the abacus became the first human calculator, created in Babylonia. It was crude but easy to use and very accurate for its day. No batteries required! In many parts of the world it is still used to this day even with cheap electronic calculators everywhere.

In 300 BC the binary number system is created. For its day this was as important as the integrated circuit was to us in 1950. At 214 BC the Great Wall of China is started and then completed in

just 10 years. By 87 BC a way to track the movement of the stars was created. Time became the method of coordinating events that took place in far off places such as trading ports where ships

were bigger, faster and stronger than before. Navigation added to their ability to go farther into uncharted waters and thus exploration was created. By 300 BC the very first fully mechanical clock was invented in [ancient Greece](#). Everybody wanted one so a huge business was created in the clock industry. Many such ancient clocks still exist in museums for all to see.

By the time of the founding of the great religions technology was moving at a blistering pace with new innovations, techniques, inventions, processes and conveniences shared among a growing population on a global scale. The printing press is invented in 1041. Eyeglasses are invented in 1280. Suspension bridges are constructed in Peru in 1350. Ball bearings are invented by Leonardo Da Vinci together with the concept of flying machines, including a helicopter, the first mechanical calculator and one of the world's first programmable robots. After this technology took off like a rocket. Telescopes and microscopes exist by 1642. The barometer, vacuum pump and Newton formed the foundation of modern science with his new world of physics. Steam engines came along in 1698, Benjamin Franklin invents the Franklin Stove in 1742. His invention was not to cook food; it was to warm a dwelling. An image of it is shown here. It was safer than an open fireplace. Everyone wanted it.



Following this, automated weaving, planetary discoveries, the hot air balloon and the steamboat came along. Perhaps one of the most important developments of all was the vaccination in 1798. 1814 saw the first steam powered locomotive. 1838 saw the telegraph. 1842 saw anesthesia – a blessing to those in need of surgical procedures. Typewriters, sewing machines, electric motors came along next. Then perhaps one of the biggest business drivers of all; the internal combustion engine is demonstrated in 1859. 1866 saw the introduction of dynamite making mining easier. By the 1870s Edison and the inventors of the day were introducing new innovations every week. Business exploded in every direction. From science to social structure, photography to telephones, energy to housing and transportation, business was the order of the day. Part two of this three part series will explore technology from 1840 to 1940 in what we commonly refer to as the “industrial age.”

If you would like to research further on this topic here are a few links to help you do it:

<http://humanhistorytimeline.com> and
<http://www.datesandevents.org/events-timelines/12-technology-timeline.htm> and <http://www.ancient.eu/city/> and
<http://en.wikipedia.org/wiki/Electricity>

Until next time I'm Will Robertson sending you good wishes from our team at [Performance Strategies, Inc.](#) / Management Consulting Group; Specialists in Change Management, Executive Communications and Sales. For booking Mr. Robertson or any of our associates as a speaker, trainer, consultant or coach call 1-800-242-1900 or E Mail prospeaker@cox.net In person and online training programs are available at the corporate level.

