

# ENTREPRENEURSHIP EDUCATION FOR VET SCHOOLS

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INVENTIONS OF  
ENTREPRENEURS  
FROM YESTERDAY TO  
TODAY

WHAT IF WE HAD  
NOT FOUND FIRE?



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# INVENTIONS OF ENTREPRENEURS FROM YESTERDAY TO TODAY



**Human beings have developed many digital tools and equipment from past to present in order to meet all their vital activities as required by creation. Housing, health and clothing are among the top basic living needs of human beings. Thanks to the advancement of technology and dozens of different inventions, human beings have developed in every field, collected information resources and continued their lives. Let's take a look together at what kind of changes have occurred in the world with the development of technology.**

## THE INVENTION OF THE WHEEL

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Throughout history, all tools and equipment invented by human beings are products of technology. These produced and invented products have constantly improved themselves and differed in different ways in line with the developments and needs in science. Wheels, which have gone through various stages from past to present, are a part of these technology products as an invariable whole of our lives.

It is not known by whom and on what date the wheel was found. People in the past used to carry heavy and large items by rolling them on tree trunks. The tree logs used in this method were thinned over time to form wheels. The wheel, in its present form, was first used in a cart and vehicle in 3500 BC (BC).

It was used by the Sumerians in the 19th century. The wheel has served dozens of functions throughout history, making it more useful each time. It is noteworthy that wheels are widely used as the basis of many technology products today. Wheels are the main elements in the cars, pickup trucks and trains we use. As a result, the fact that the vehicles we have mentioned do not have wheels means that these devices have no meaning anymore. In addition to these vehicles, wheels are also used as the basis of operation of almost every machine used in factories. Another area where the wheel is widely used is flour mills. The millstone, which rotates like a wheel, is a tool designed to grind wheat into flour. Like wheels, cars have also gone through significant changes from past to present. When they were first produced, cars were produced based on the necessity of how transportation should be easier and faster, and in later times, how they became more comfortable and fast.

It has undergone developments on how to be comfortable and less costly. While in the past, journeys were made with trucks used for mail duty with the back sides covered with covers, or makeshift cars pulled by animals such as horses and oxen, today, with the development of technology, they enjoy the pleasure of transportation with innovations made beyond imagination. If we need to give examples of these technological developments, parking sensors in the latest model vehicles, vehicles that can be managed remotely,

Automatic pilots, vehicles with automatic transmission and heated seats are examples. What kind of further developments will come remains a matter of curiosity and mystery.



## THE INVENTION OF THE VACUUM CLEANER

Until the 20th century, the items we used, such as carpets and rugs, that got dirty quickly and caught dust, were cleaned by beating them with stick-style wood or by water for hours in a difficult and laborious manner by the water.

The inventor of the vacuum cleaner is HUBERT CECIL BOOTH. During a fair trip he attended in those years, our scientist became very interested in the dust removal device that caught his eye, and by doing different studies on it, he invented the vacuum cleaner, which is now known as the vacuum cleaner. Vacuum cleaners, which were carried by horse-drawn carriages when they were first produced, have changed over time to gasoline-powered models. With today's technology, vacuum cleaners have found a place in a corner of our homes as indispensable appliances and very useful depending on their size and size. In fact, with the development of technology, robot vacuum cleaners that clean carpets, rugs and parquet on their own are among the examples that have changed until today.



## THE INVENTION OF THE IRON

As a result of research, it has been suggested that iron was produced and invented in the early 17th century. The first form in which it was produced was a hard piece of iron with an iron handle and a flat bottom, which burned at high temperatures.

As a result of being kept on it and warming up, it took its initial shape in order to be moved on the clothes. Later, with the exchange of ideas, irons in which burned ash and coal pieces could be placed began to be produced. Later, in 1882, Henry Seely invented the first electric iron, similar to the irons used today. The feature of this iron produced at that time was that when the electrically heated iron reached a certain temperature, it was disconnected from the electricity and started ironing. However, since electricity was not widespread at that time and the price of the iron produced was high, it was not very popular at first. In 1926, a dry cleaning company invented steam irons and made their work easier. This is the technological change of iron from past to today.



## THE INVENTION OF THE WASHING MACHINE

With the coming of human beings to the world, clothes produced for the purpose of dressing, which were seen as the basis with the developing time and technology, had been studied for many years in terms of cleaning, and were at the top of the list in the invention of products that would make washing easier. For centuries, women have tried to clean their laundry by scrubbing in their hands and beating with sticks, next to rivers and streams. When there were no streams and rivers, they tried to wash in basins, cauldrons and barrels. In later times, laundry tins and scrubbing boards made of wood began to be invented. Until 1906, these washing machines were made by human power. Later, the first electrically powered washing machine was invented by Alva John Fisher. Again, with the development of technology, the first automatic washing machine was invented in 1937.



## THE INVENTION OF THE PHONE

Since the existence of humans, many studies have been carried out to communicate and send messages to people in distant places. In the early days, mail birds, smoke and mirror reflections were used as communication tools. The first message transmitting machine was invented by Cloud Chabbe in 1793. This invention was called "telegraph", which means writing from a distance. The system of communication with signs was replaced by the American scientist, Samuel Mors, in the electric telegraph machine invented by the American scientist Samuel Mors in 1840. With the effect of electric current in response to the pen moving on the pen, communication took place with lines on the role of the door. After the invention of electric telegraphs, communication began to accelerate considerably. . Alexander Graham Bell noticed that electric currents change the sound vibrations. Mobile phones have become smaller, lighter and modernized with the advancement of technology. This invention of ours is currently the most widely used communication invention in the world.

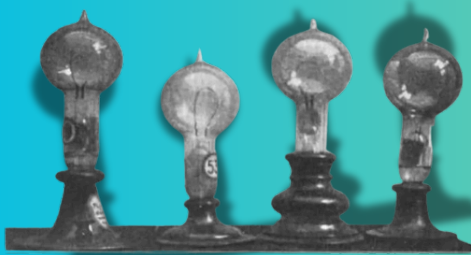
After realizing this, he invented the telephone in 1876, which allowed sound waves to be transmitted to the other party through wires. As additional information, the telephone was first used in our country in 1908. Yes, communication is possible in this way, but wireless communication was developed because laying wires across the world would be very costly and require a lot of work. As a result of these efforts, Marconi, also known as the inventor of the radio, invented the communication invention called true radio in the late 19th century. Following research conducted in 1973, this radio was turned into a mobile phone with the development of technology. The first mobile phone produced was almost the size and shape of a brick.



## THE INVENTION OF THE LIGHT BULB

After the evening hours, when it got dark, people continued their lives with only the lights coming from the MOON. After the invention of the light bulb, people gained convenience in every aspect, were able to continue their work and continue their daily lives at night. The first studies on the invention of the light bulb were made by the English scientist Humprey Davy in 1802. At first, Davy did not find the brightness level and lifespan of the light he obtained by passing current through a thin platinum strip sufficient. In 1840, Warren de la Rue concentrated on Davy's method. By placing the platinum strip, which was my electrical mind, inside a transparent and thin-layered glass tube, he managed to emit more efficient and long-lasting light. Again, this invention could not become widespread due to the purchasing power and the expensiveness of platinum at that time. The most successful and most advanced studies on the development of light bulbs were made by the scientist THOMAS EDISON. Edison failed in his numerous attempts.

After the studies, he used carbon wire and came to the conclusion that this wire gave high efficiency and produced an improved bulb. The development of light bulbs did not stop there. It evolved over time and came into different models and shapes. In 1901, a scientist named Peter Hewit invented steam lamps that emit blue light, which were the beginning of fluorescent lamps. In 1911, the tungsten filament bulbs used today began to become widespread. In 1980, halogen-containing fluorescent lamps, which were introduced today, began to become widespread. Lighting technology is constantly changing from yesterday to today. The latest types that have entered the usage areas of our lives are LED lamps. LED bulbs, which were first introduced to the market in early 1996, began to be widely used because they use 90% less energy than other bulbs and have more illumination area. For example, it is used in my car headlights, LED TVs and street lighting.



# WHAT IF WE HAD NOT FOUND FIRE?

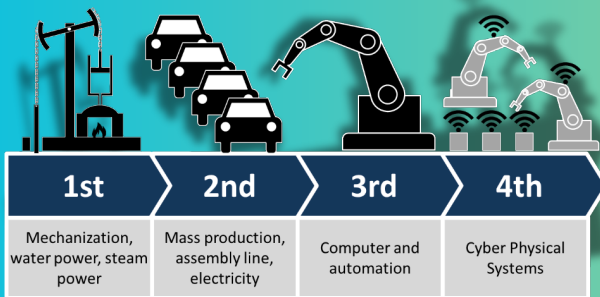
Since our existence until today; We lit the first fire, built giant factories, and even made humanoid robots that look very similar to ourselves. All of this happened thanks to a concept we studied as a course subject in primary school: Technology. By definition, technology makes daily life easier; It is the whole of knowledge, methods and techniques. It derives its origin from the combination of the Greek words "techne", meaning art and craft, and "logos", meaning word, speech. The purpose of technology is to discover a new method, and the new method provides a certain benefit. If we synthesize the definitions and our history, can we say that fire is a technological development? When examined; Fire has a certain method and a benefit it provides. So, what happened after this primitive technology? Could a small spark be the ancestor of the concept we call 'Industry 5.0' today? To understand this, we only need to consider the evolution of fire up to 5.0.



We need to address it individually.

Industry 1.0 is the beginning of the mechanical production revolution with James Watt's development of the steam engine. In this process, which took place between 1760 and 1830, labor power was replaced by machine power. Since mechanization was faster than labor force, more products were produced in the same period of time. This means the spread of mechanization.

While the process continued until the 1840s, the electrical revolution took place. Between 1840 and 1870, electricity began to be used as widespread power, taking away the power of steam and water. With the developing industry, the iron and steel industry, that is, the heavy industry, has developed significantly. Great advances have also been made in the technologies of means of transportation (airplane, ship, car) and means of communication (radio, telegraph, telephone). Here again, USA; Countries such as Germany and England started mass production.



While electricity continued to be the main power, this process evolved into another concept and brought about a new process. This concept, called the electronic information age, emerged in the first half of the 20th century. The spread of informatics and automation in the field of manufacturing has enabled programmable logic processors to be automated using information. Mass production, which was introduced with Industry 2.0, began to be kept under control and digitalized with Industry 3.0. For this purpose, the footsteps of smart systems were heard for future processes and, in fact, this had become a necessity.

This need began to be observed in 2011. The steps taken at the Hannover Fair in Germany were among the pioneers of combining the physical world with the virtual world. Here, all processes developed so far are intended to be smart enough to be taken over by machines. For this purpose; There were components such as artificial intelligence, three-dimensional printers, reducing production from the factory to the individual, and the realization of machine learning by gaining data over time. While Industry 4.0 has become so widespread and smart, Industry 5.0 entered our lives with the aim of resetting the labor force from 2017 to the present. If you remember in Industry 1.0,



While even steam and water caused a great decrease in labor power in their period, how can labor power not be reset to zero in a completely intelligent system, right? As you can observe in all processes, the world has been polluted enough with heavy industries and people have been taken into the background with mechanization. For exactly these reasons, Industry 5.0, referred to as "Society 5.0", aims to use smart systems to take care of the benefits of society. Goals such as more sustainable lives, uninterrupted access to services, and the elimination of social difficulties are at stake here. Don't you think the evolving process is very strange? Today, we can talk about a utopian world order by saying "Society 5.0" after our ancestors, whom we now consider very primitive, discovered fire. When you take a step away and read the entire article, a single spark; We can observe that it caused the industrial revolution, the internet, robots and perhaps even the virtual universes we will live in in the future. But I'm wondering about one more thing:

What if we hadn't found fire?

