

Extinct Victorian Vocations In The Era of Technology In The Late 20th- Century In Great Britain

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Abstract- *With technology taking over the important aspects of our life, this paper reviews the professions that were widely affected during the late 20th century when technology began to take over our lifestyle. Majority of the occupations which were on the verge of extinction in the late 20th Century were widely in demand 100 years ago which was called the Victorian era. The Victorian era gave rise to various inventions and make human lifestyle easier but at the same time the jobs which were available before the invention were threatened. This paper mentions a few occupations which were completely affected by technology. Sources from various books, internet, and older encyclopedia were used to know more about the occupation. This research mainly includes occupations which were based in Europe and Great Britain. Because back then, Great Britain was the leading center for technological inventions and the majority of applied science improvisation took place in Britain and Europe. This research was done to give a piece of information to the current generation on the scenario of the lifestyle which people used to live before applied science.*

Keywords- Victorian era; vocations; professions; technology; computer;

I. INTRODUCTION

In History, the Victorian era began in 1837 after Queen Victoria took over as the Queen of England and ended after the Queen's death in 1901. In this era, a wide range of occupation were available in western countries where people could work. The era has also been understood in a more extensive sense as a period that possessed sensibilities and characteristics distinct from the periods adjacent to it. The Victorians were impressed by science and progress and felt that they could improve society in the same way as they were improving technology. Britain was the leading world center for advanced engineering and technology. Its engineering firms were in worldwide demand for new inventions and new findings. But just 100 years later, the technology took over the professions which were helping the individuals to earn their bread and butter. Such individuals who were unaware of the fact that technology was taking over lost their jobs. Though the technology was making the life of human being's easier, it

still managed to raise the unemployment level upto some extent. A sector that transformed the most was the communication sector. The article focuses on the professions which were widely affected by the means of technology and their technological substitutes. After the Victorian era technology took over the day-to-day life of individuals slowly and steadily unlike the 21st-century technological growth which happened to take a drastic leap suddenly. The late 20th century period is considered from 1966 to 1999 which they call the "Computer Era" in the west.

i) Why Victorian vocations in Great Britain?

The scientific revolution in 17th century Europe stimulated innovation and discovery in Britain. During the 19th century, innovation in Britain led to revolutionary changes in manufacturing, the development of factory systems, and the growth of transportation by railway and steamship that spread around the world. The years 1900 to 1945 were dominated by the two World Wars, which disturbed the social and economical atmosphere of Europe. The employer wanted to reduce the manpower and use technology instead to save the cost of manpower. Hence, because of the easy availability of technology a wide switch-over to technology in Britain was considered as a great option for saving the cost.

ii) Why late 20th century?

The biggest invention of millennium, "Computer" was invented in the 20th Century and after that majority of the improvisation in computers took place in the same century. Machines and computers have been the sole reason for the reduction in manpower for doing a specific task and computer taking over their work. eg:- RADAR, Printer, Telegraphist. The innovations were in all subjects such as Physics, chemistry, biology, and geography. And hence, the late 20th century completely changed the world and whatever new inventions that did not take place in the last 500 years took place in the late 20th Century.

II. OCCUPATIONS AFFECTED

A. AIRCRAFT LISTENER

Most of the work on anti-aircraft sound ranging was done by the British. They developed an extensive network of sound mirrors that were used from World War I through World War II. Before World War II and the invention of radar, acoustic mirrors were built as early warning devices around the coasts of Great Britain, with the aim of detecting incoming enemy aircraft by the sound of their engines. An aircraft listener was deployed for controlling the acoustic mirror. With the acoustic mirror, the aircraft listener would get the sound of the aircraft and he/she would alert the nearby military stations so they could take the measures to tackle the threat of getting attacked by the enemy aircraft. Sound mirrors normally work by using movable microphones to find the angle that maximizes the amplitude of sound received, which is also the bearing angle to the target. Horns give both acoustic gain and directionality; the increased inter-horn spacing compared with human ears increases the observer's ability to localize the direction of a sound. Acoustic techniques had the advantage that they could 'see' around corners and over hills, due to sound refraction. For typical aircraft speeds of that time, sound location only gave a few minutes of warning. Hence, a special training was given to such individuals to hear and get the exact location of the aircraft. During various wars, these individuals played an important role and saved the lives of many people. But soon after the invention of Radio Detection And Ranging in the mid 20th century, the demand for this profession became less and eventually, this occupation vanished in the late 20th Century.

TECHNOLOGICAL SUBSTITUTE:

RADIO DETECTION AND RANGING (RADAR)

B. BALLAST HEAVER

Ballast is a material that is used to provide stability to a vehicle or structure. Ballast, other than cargo, may be placed in a vehicle, often a ship or the gondola of a balloon or airship, to provide stability. A compartment within a boat, ship, submarine, or other floating structure that holds water is called a ballast tank. Water should move in and out from the ballast tank to balance the ship. The job of the ballast-heaver was to balance the level of the ballast to keep the ship below the water level. A ballast heaver would pour the water out of the boat to maintain the balance of the boat. A system called Ballast Water Management System was invented in the 1980s and it started implementing across the globe. Due to this system, most of the ballast heavers were unemployed. By the

early 21st century, it was widely implemented in most of the Boats and Ships.

TECHONOGICAL SUBSTITUTE:

BALLAST WATER MANAGEMENT SYSTEM

C. CARTOGRAPHER

A cartographer is a person involved with developing and producing maps. In simple words, it is the outmoded process of producing paper maps. That chain of production required a whole set of people who each had their own skills. This profession was widely considered important from the 14,500 B.C. era. It was improvised and specially trained professionals were widely considered for this job in the Victorian era. The Cartographers would point out certain locations and find ways to reach there with the help of other maps. The invention of GPS in 1973, made improvisations in this profession and people started taking geographical jobs such as geologists and geographers. In recent decades, history repeated itself with a slight twist. The rise of the Internet and mobile devices has resulted in a tremendous increase in the creation and use of maps. Most of those maps are of the where-is-it and how-do-I-get-there type. But with social media and our growing habits of sharing information, there has also been a surge of people making mashup maps with online mapping tools.

TECHNOLOGICAL SUBSTITUTE:

GLOBAL POSITIONING SYSTEM (GPS)

D. CLOCKKEEPER

The earliest method of measuring time was through observation of the celestial bodies - the sun, moon, stars and the five planets known in antiquity. The rising and setting of the sun, the solstices, phases of the moon, and the position of particular stars and constellations have been used in all ancient civilizations to demarcate particular activities. Later, the concept of sundial arrived. In the Roman Empire, portable sundials became popular, some with changeable discs to compensate for changes in location. Public sundials were present in all major towns and their popularity is evidenced not only in archaeological finds - 25 from Delos and 35 from Pompeii alone - but also in references in Greek drama and Roman literature. When the clocks were invented the concept of a clockkeeper came into existence. A clockkeeper, sometimes seen as clock keeper, refers to a form of employment seen prevalently during Middle age Europe involving the tracking of time and the maintaining

of clocks and other timekeeping devices. However, the practice and its appearance throughout history fluctuated in centuries following the Middle Ages, and the necessity of an attendant to clockkeep remained long after the invention of the mechanical clock. Quartz crystal clocks replaced the Short clock as the standard in the 1930s and 1940s, improving timekeeping performance far beyond that of pendulum and balance-wheel escapements.

TECHNOLOGICAL SUBSTITUTE:

QUARTZ CLOCK

E. ICE - CUTTER

The *coupeur de glace*, or ice cutter, went out onto frozen rivers, lakes or ponds in wintertime (generally from late December to April) to cut and collect surface ice for personal use, or for sale. This risky occupation was moderately paid and did not require any specific education. In some of the European countries, Ice-Cutter was considered an important occupation because of the Frozen Ice situated in various lakes and ponds. Ice cutters went out onto frozen rivers, lakes and ponds with shallow, slow-moving water because it formed solid, clear ice. First, they'd use a horse-drawn plow to keep the area free from snow, which warmed it and retarded the freezing process. Then, they made the cuts in ice. Before the advent of mechanical refrigeration, people would keep "ice boxes" in their homes or small "ice houses" in order to keep foodstuffs cold. Families that lived in the countryside sometimes collected their own ice, but most households, especially in cities, relied on ice cutters or icemen (sellers of ice) for regular ice deliveries. The blocks of ice were then floated through a pre-cut channel to a spot where they could be removed and delivered. In the 1920s the Automatic Ice Cutting machine was invented which gave a decline to this profession.

TECHNOLOGICAL SUBSTITUTE:

ICE-CUTTING MACHINE

F. KNOCKER-UP

A knocker-up, sometimes known as a knocker-upper, was a profession in Britain and Ireland that started during and lasted well into the Industrial Revolution when alarm clocks were neither cheap nor reliable. A knocker-up's job was to rouse sleeping people so they could get to work on time. A knocker-up's job was to rouse sleeping people so they could get to work on time. The profession was useful, especially to those who had to work early shifts, as they had to be up and

running sometimes as early as three o'clock in the morning. This applied to the dock workers as well, for they sometimes had to wake up in the middle of the night, due to the shifting of the tide that dictated their working hours. First of all, a knocker-upper is one of the long-lost skills and trades that became redundant in the face of ever-developing technology. Throughout the 19th century, and partially the 20th, it was quite common for a person to come knock on your bedroom window at an arranged time to wake you up. By the 1940s and 1950s, this profession has died out, although it still continued in some pockets of industrial England until the early 1970s. A knocker-up would use a long bamboo stick or a wooden stick to knock on the window or doors to wake people up. The knocker-up was paid on a weekly basis. This profession was mainly considered because the alarm clock back then wasn't reliable for waking up. But as soon as the improvisation of alarm took place in the late 20th Century, the knocker-up was widely ignored by the people and the people preferred modern alarm clocks.

TECHNOLOGICAL SUBSTITUTE:

MODERN ALARM CLOCK

G. PINSETTERS

In the 1930s, an Egyptian child's grave unearthed objects thought to have been a crude form of bowling. If true, then bowling has been around since 3200 BC. A lot has changed in the game. Not just in the materials used to make the balls and pins, but the exact rules for the game have varied. By the end of the century though most states had seen an increase in bowling enthusiasts. During the earlier period of bowling, a pinsetter (commonly known as a pin boy) was originally a person who manually set the pins and returned the ball to the bowler through simple ball-return rails. The first mechanical pinsetter was invented by Gottfried (Fred) Schmidt, who sold the patent in 1941 to AMF, which largely did away with pinsetting as a manual profession, although a small number of bowling alleys still use human pinsetters. While humans usually no longer set the pins, a pinchaser, or in slang 'pin monkey', often is stationed near the equipment to ensure that it is clean and working properly, and to clear minor jams. Beginning in the 1970s, modern pinsetters are integrated with electronic scoring systems of varying sophistication. While many pinsetters have a manual reset button to use in case the pinsetter does not automatically activate at the correct time, other types have no automatic tracking of the state of the game – especially for the candlepin and duckpin bowling sports which use smaller balls – and are almost always manually activated.

TECHNOLOGICAL SUBSTITUTE:

AUTOMATED PINSETTING MACHINE

H. RAT CATCHER

Diseases like the plague were very common in the Victorian era across the world. Such diseases were mainly spread from insects and rodents. Pest control system and rat killers weren't available then so the Rats Catcher came into demand. The rat-catching profession came into existence since the 14th Century. Rat-catchers may attempt to capture rats themselves, or release "ratters", animals trained or naturally skilled at catching them. They may also set a rat trap or other traps. The rat catcher was also considered as a secondary job or a part-time job which was done during the night time. Most of the Rat Catchers were paid on a contract basis per rate or by daily wages. Until, the invention of Rodenticide in the late 20th Century. The rodenticide is colloquial rat poison, which is typically non-specific pest control chemicals made and sold for the purpose of killing rodents. The rodenticide only kills rodents and not other insects or animals. Due to the high demand of rodenticide and its cheap price in the rat-catching job became extinct.

TECHNOLOGICAL SUBSTITUTE:

RODENTICIDE

I. SANDWICH-BOARD MAN

A sandwich board is a small advertisement hoarding that was used since the 18th Century but got a huge demand in the 19th century due to the increase in shops and commercial enterprises. A sandwich board man would usually stand in front of a shop or nearby a shop and hold an advertising board pointing towards the shop or an advertisement regarding the shop. There was seen an increase in the number of customers visiting a shop and commercial enterprise. Hence, the Sandwich Board Man was considered as a great option for guiding the citizens to the commercial enterprise. The demand for this profession became less when the hoarding and billboard arrived in the 20th Century. The modernized use of hoarding led to the extinction of this profession.

TECHNOLOGICAL SUBSTITUTE:

HOARDINGS/BILLBOARD ADVERTISING

J. TELEGRAPHIST

The telegraphist was a high-technological job in the late 19th century after the invention of the telephone. The telegraphist was very highly paid and was responsible for managing the telephone lines. The job of the telegraphist was to transfer and manage the phone line in a telephone exchange. Many of the young men and women in Britain left their occupation of farming and fishing and shift to urban areas where they could learn the job of telegraphists and work. During the Great War the Royal Navy enlisted many volunteers as radio telegraphists. Telegraphists were indispensable at sea in the early days of Wireless Telegraphy, and many young men were called to sea as professional radiotelegraph operators who were always accorded high paying officer status at sea. Subsequent to the Titanic disaster and the Radio Act of 1912, the International Safety of Life at Sea (SOLAS) conventions established the 500kHz maritime distress frequency monitoring and mandated that all passenger carrying ships carry licensed radio telegraph operators. High paying jobs as seagoing ship's radiotelegraphy officers were still common until the late 20th century. This was until the late 20th century when the automatic telephone exchange and mobile phones came into existence. Even today this job is available but it means just to keep a check on whether the system is working perfectly or not.

TECHNOLOGICAL SUBSTITUTE:

MOBILE PHONES SYSTEM

K. TYPESETTER

The typeset process refers to the selection and setting of type for a document. It is sometimes confuse typography, which refers to the type design, because both focus on the visual presentation of text. The process results in text and images carefully being arranged in preparation for printing. This required typesetters or graphic designers select the most appropriate size and style of every text chain and design. Although the typeset process may appear simple, it is actually a very technical and time consuming act to properly manage and edit the typeset will result in visually unappealing flaws within the text. Since the invention of modern printing machine blocks in 1450, the typesetter profession was demand. The main job of the typesetter was to set the font of the printing machine according to the texts and sentences to be printed e.g.: Newspapers, Gazettes, etc. The typesetter was considered a must needed occupation as the newspaper was the only source for information. The Typesetter was in huge demand since the invention of newspaper in 1690. During the 20th century, automatic printing machines were invented and this occupation was improvised to handling the machine or setting the fonts or designing the layout on the computer. But

the primary typesetter vocation whose job was to set letter by letter is no more available or in demand.

TECHNOLOGICAL SUBSTITUTE:

COMPUTER/MODERN PRINTING MACHINE.

III. CONCLUSION

This concludes with the fact that the profession which in huge demand that too in the province of Britain and Europe where the Industrial Revolution took place are no more in demand in the modern era of technology. These were the professions where most of the people were ready to leave their profession of farming and agriculture and join. But just a century later the scenario was changed, it was a situation where most of the work is done by the machines or computer themselves. In the present-day there are also various professions such as accountants, road construction workers, and many more which are on the verge of extinction. The only solution to this is to improvise oneself with modern technology in their own profession and learn the latest technology where one can survive if they wish to continue to work in the same profession.

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