<u>The Involvement Of Women In The American Telecom Sector, With</u> <u>A Focus On The Telegraph Business, From 1846 To 1950</u>

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ABSTRACT

Throughout history, women have been subjected to severe inequality and injustice. In ancient civilization, women were viewed as inferior and had less opportunities and rights. In medieval and Renaissance Europe, the feudal structure and the teachings of the Catholic Church had a major influence on women. Despite these challenges, some women made contributions to the domains of spirituality, art, and philosophy. The global movement for women's rights evolved as a result of the women's suffrage struggle. This prompted a fresh generation of campaigners. Women were able to gain skills and financial independence as a result of the Industrial Revolution, which upended social norms and traditional gender roles. Women's rights persist despite discrimination, uneven pay, and dangerous working conditions. The present study examines the role women played by women in the telegraph business, their definition of technical professionalism, and the ways in which their work linked to that of women in contemporary technical professions.

<u>KEY WORDS</u>: Ancient civilization, Renaissance Europe, Industrial Revolution, Gender roles Women, Telegraph business

METHODOLOGY:

The research investigates women's roles in the US telegraph sector, and this paper is purely based on the descriptive study. Utilizing Books, Journals, Articles, Magazines, and Newspaper and census data's. It aims to understand the challenges faced by female operators and administrators, respective roles in the creation of the communication network and in navigating and shaping the growth of the telegraph in America during the 19th and early 20th centuries.

INTRODUCTION:

The American telegraph industry, a pioneering force in communication, was not just dominated by men. Women played a crucial role in shaping this technology, starting in the 1840s. They quickly proved their mettle in telegraph operations, often outperforming their male counterparts in speed and accuracy. Their presence challenged societal norms and paved the way for greater gender equality in the workforce. The invention of the telegraph, which allowed for quick information sharing and gave women new opportunities to engage in the political, social, and economic spheres, completely changed the American landscape. These pioneering female telegraph operators succeeded in their professions and made priceless contributions that helped to build the foundations of this revolutionary technology in spite of obstacles and discrimination. Their legacy serves as a testament to the significant and enduring contributions of women in the history of technology.

EARLY CONDITIONS OF WOMEN WORLD WIDE

Ancient history has seen women as strong figures, but they have faced varied experiences throughout history. Some societies viewed women as inferior, while others saw them as warriors, priestesses, or political leaders. Today, women face gender-based violence and discrimination, and progress is not inevitable. In the history of Western cultures, women have enjoyed more equality than ever before. Due to the male dominance of medieval medicine, allegations of witchcraft were common, and in the 1600s, many women were burned at the stake for suspected witchcraft. Modern history, beginning with the Renaissance, saw women's roles largely defined as homemakers, denied voting, business ownership, and property rights. In the 20th century, women made significant gains in equality, with groups like the Suffragettes campaigning for the right to vote. World Wars demonstrated women's potential in factories, work, and economic contributions. The feminist revolution of the 1960s and 70s revolutionized women's experiences by focusing on equality and discrimination. Today, women are increasingly seen in various professions, despite gender biases, emphasizing the importance of women having a choice in their behavior and time.¹

IMPACT OF INDUSTRIAL REVOLUTION

The Industrial Revolution significantly impacted women's roles in society, as they were traditionally confined to domestic tasks such as fetching water and tending livestock. As machines replaced individual labour and industries needed coal; Women became part of the growing working classes in mines and mills. In the late 18th century, many families sought employment together, with husband, wife, and children working at the same factory or pit but still women were seen as less physically strong and skilled than men and were paid less. Many employers exploited this cheaper option, focusing on tasks like printing and spinning machines that were easy to learn and considered women's labour. 'Work-life-imbalance was a significant issue for women in factories, as they could work up to 80 hours a week, had few breaks, and often served inedible food.

Domestic roles traditionally viewed as women's work continued unpaid, with some employers implementing practices like 'quartering'. In the mines of Lancashire and Yorkshire, women laborued underground alongside men in physically demanding roles until the mid-19th century²

EMERGENCE OF TELEGRAPH INDUSTRY AND ITS SPREAD

The telegraph and railroad revolutionized transportation and communication in the late 1800s, creating a mass, integrated national market and bringing nations closer. Because of this rise, there was a greater need for qualified operators, which opened up jobs for women. The industrial age began in the 1840s with the invention of the telegraph, which also brought to the emergence of a new middle class made up of clerks, managers, and office workers.³ The telegraph revolutionized America's communications by enabling instant messaging across the country and grew into a vast industry interconnected by wire and pole networks. The first commercial telegraphs line in the US was opened in 1844 by Samuel Morse, who oversaw the construction of the first telegraph line connecting the eastern and Midwestern United States. The East and West Coasts were connected by a transcontinental telegraph connection by 1860, and large towns like Boston, Buffalo, Philadelphia, and Pittsburgh were integrated by 1852. The culmination of the telegraph was the completion of a transcontinental telegraph in 1861, linking the existing eastern networks with California.⁴

EMERGENCE OF WOMEN IN TELEGRAPH INDUSTRY

Beginning in the 1850s, women were employed in the telegraph industry. For instance, in Greenville, Pennsylvania, Helen Plummer operated telegraph machines. Emma Hunter, the self-proclaimed "first female operator," became the first woman to run a machine. When telegraphs were invented for rail-road dispatching, women began running railroads, albeit it took some time for their potential advantages to be recognized. How Women Can Make Money, an encyclopedic book written in the early 1860s by Virginia Penny, included women telegraphers and said that skilled women will outperform their male counterparts.⁵ After the Civil War, women continued to work in the telegraph industry because of the support of the industry and their efforts to maintain and defend their status. The reliability and effectiveness of the communications network were increased by the inventive gadgets and frameworks made by forward-thinking female engineers. Their inventive work was crucial to the telegraph's widespread use and the dawn of a new age of connectivity that would irreversibly change how American society was organized.

THEIR ROLE IN TELEGRAPH INDUSTRY

Early in the 20th century, the telegraph business underwent de-skilling, and as the teletype gained popularity, women were able to rise above the rank of second-class operators. This resulted in the creation of two subcategories: teletype operators and skilled Morse operators, with the latter earning a distinct salary category. In order to encourage more women to participate in the telegraph sector today, Western Union established telegraph schools for them in 1869. These schools offer training and career prospects, and telegraphers are now regarded as skilled workers in electrical engineering, with desk occupations demanding intricate code decoding. The technological features of telegraphy disproved the notion that electrical technology in the 19th century was a "man's world," as women engaged in all facets and shared their telegraphy talents with one another.⁶

CHALLENGES FACED BY WOMEN IN TELEGRAPH INDUSTRY

The difficulties female telegraph operators confront large American telegraph companies were sex-segregated in the middle of the 1800s to save their daughters and spouses from male operators known for their coarse language, heavy drinking, and promiscuous lifestyle. As a result, there was a constant "underclass" of female operators due to skill level segregation.⁷ In 1871, the Postmaster General of England praised the practice of having male and female operators work together. In 1871, gender-based segregation was eliminated and inter-room contact was established in the Western Union office located in Chicago. ⁸ According to The Telegrapher, women operators were given the same opportunities as males in comparable roles when the distinct female telegraph department was eliminated. Western Union removed the physical barriers separating female operators from male coworkers in the 1890s while maintaining a female-only city section in its main New York headquarters. The Cooper Institute's founding in 1869 and support from Western Union improved women's prospects in the telegraph sector in the 1870s. The arrival of women and the integration of the workplace brought forth additional gender challenges, including harassment, obscene language, working conditions, and sexual difficulties.⁹

Discrimination in hiring and promotion

Female telegraphers in England were mostly from middle-class families, and those with higher education were preferred. Entrance tests were mandated by European authorities, and telegraphy rose to prominence in Norway. In the US, telegraphers expressed elitism and concerns about the social divide and felt that their technical expertise distinguished them from members of the conventional working class.¹⁰ Women operators were frequently young and unmarried during the mid-19th century, when telegraph operations were performed by young, single people. The average age of New York City's 102 female operators in 1880 was 21.8 years old. In a few years, the majority of women may quit their jobs to get married.

So the government feared providing them with a promotion or higher rankings. ¹¹ Male operators were concerned about the entry of female operators into the mid-1870s because they believed it would lead to a communal, polygamous, or barbarous style of life.¹²

Unequal pay compared to male colleagues

Salary levels were arbitrary in the early telegraph era since it was unclear how the technology would affect the economy. By 1860, most female operators earned a monthly salary of \$6 to \$25 (Rs. 502.092 to 2,092.05). During the Civil conflict, salaries rose, but after the conflict, they fell. Salary ranged according to position, with larger cities paying more and rural places paying less. First-class operators experienced wage discrimination; male first-class operators made between \$80-85(Rs.6,708.56-7,127.845) while female first-class operators made just \$75(Rs.6,289.275).¹³ Lower pay limitations in the 1870s gave Western Union an edge in employing women since they could be kept for less money. In the 19th century, wage gaps for female operators in European telegraphic administrations were particularly severe and difficult to overcome. Ladies appealed to the Sorting for wage increases, but were rejected; leading to public protests and labor movements. Arguing for pay less, no better working conditions, limited promotion opportunities, and forced marriage.¹⁴

Working hours

The telegraph industry's working hours differed according on the kind of office. A typical workday at a big Western Union office in the 1880s lasted 10 hours, with operators rotating between evening and Sunday shifts. Women were not supposed to work at night because of transportation and societal concerns. Women's working hours were restricted by postal laws in 1900 between 8 a.m. and 8 p.m., however some employers permitted replacements on Sundays. Offices with a single operator had varying working hours based on the operator's availability; some days needed minimal labour, while others required fifteen hours at the key. In the years 1910–15, a number of states enacted legislation restricting the number of hours that women may work. These acts often set a maximum workday of eight hours. While many women employed in factories benefited from these rules, women operators occasionally found it challenging to obtain jobs in railroads, where working hours were irregular and lengthy.¹⁵

Lack of professional development opportunities

Telegraphy in the nineteenth century was less physically demanding than factory employment, but it still carried hazards like as lightning and sickness. Gender roles in the telegraph sector emerged with the advent of the Teletype in the early 1900s.¹⁶ The rising number of female technicians and managers has led to a view that female operators are "exceptional." Male operators expressed their uniqueness by aggressive language and behavior, which led to problems with drinking and language at work. A proposal for a return to traditional sex separation arose in 1875 as a result of women's disapproval of men's tobacco usage.¹⁷

CONTRIBUTIONS AND ACHIEVEMENTS OF WOMEN TELEGRAPHERS

Pioneering roles and innovations or Pioneering women who excelled as telegraph operators

First woman to operate on the Pennsylvania Railroad, Elizabeth Coogley was employed by Atlantic & Ohio in Lewistown and later trained other women in telegraphy. She relocated to Harrisburg in 1862, and during the Civil War, she delivered vital communications. Greenville, Pennsylvania resident Helen M. Plummer began working for the Erie & Michigan Telegraph Company in 1850 and was paid \$125 a year as a telegraph operator. Born in 1831, Emma Hunter first worked for the Atlantic & Ohio Telegraph Company as an operator in West Chester, Pennsylvania. Teacher and telegraph operator Abbie Struble Vaughan was employed by the B&O Railroad in Pittsburgh before going on to work for the Mexican Central and Mexican National Railroads. The widow of the Civil War, Hettie Ogle, was employed by Western Union and rose to the position of telephone exchange manager in Johnstown.¹⁸

Recognition and achievements

The 19th-century American telegraph industry witnessed the emergence of several exceptional women who challenged societal norms and made significant contributions. Among them was Kate Warne, the pioneering female private detective who also excelled as a skilled telegraph operator, leveraged her technical expertise who gathered intelligence for her investigations. Another trailblazer was Nellie Bly, the renowned journalist known for her daring around-the-world journey, who honed her craft as a telegraph operator before embarking on her celebrated feats of reporting. Equally impressive was Mary Cooke, a renowned telegraph operator who not only mastered her craft but also invented innovative telegraphy technologies that advanced the field.

Influence on future generations

One of the first industries in the United States to go through two phases of industrialization was telegraphy, which started in the 1870s with large urban offices and saw women initially given special status and separated into city departments. As a result of industrialization, benefits were eliminated, working hours increased, pay decreased and the workplace became more regimented, which led to a newfound militancy among telegraphers who organized labour unions to demand better working conditions and higher pay. From the 1870s until the early 20th century, two distinct work environments coexisted in the United States: the fast-paced commercial office and the relaxed but lower-paying depot office.¹⁹

Continued importance of women in technology

Despite their mysterious line of work and low social standing, telegraphers are today acknowledged as skilled professionals with technical abilities such as grounding wires and switchboard expertise. Through kinfolk, labour solidarity, and a common vocation, they engaged in all facets of telegraphic activity, sharing talents with one another. With women making up 29.5% of the total number of programmers in 1995, women represent a sizable minority in their field. Since everyone may use a computer to transmit emails like a personal telegraph, the Internet has come to represent gender equality.²⁰

CONCLUSION:

The American telegraph industry has a rich history of women who have played pivotal roles in breaking down gender barriers and advancing the technology. Pioneers like Ella Cheever Thayer and others have paved the way for future generations by developing innovative techniques and technologies. Their contributions have left an indelible mark on the industry, paving the way for future generations to follow in their footsteps. Women faced numerous challenges, including discrimination, limited opportunities, unequal pay and rigid gender norms. Despite these obstacles, their pioneering spirit and technical expertise inspired young women to pursue careers in technology, shattering gender barriers and empowering future leaders. Their legacy continues to resonate today, serving as role models and trailblazers in the telecommunications industry.

FINDINGS:

•Women played a crucial role in the rapid expansion and success of the American Telegraph industry.

•They paved the way for greater gender equality in the workplace.

•Women's technical expertise, innovation, and leadership were integral to the telegraph's rise.

• Despite challenges and discrimination, women's labor and ingenuity shaped the trajectory of the industry.

• In 1846, Sarah Bagley trained to operate telegraph machines.

Throughout the Civil War, women were instrumental in getting important information across.

•The women's telegraph school at Western Union founded in 1869, offered instruction and job prospects.

• Women telegraphers took part in labour activities to demand better working conditions and equal pay.

• Women like Mary Macaulay and Louisa Margaret Dunkley held leadership positions in unions.

• The introduction of new technologies led to a decline in telegraph operator demand, ending the industry's reliance on Morse code in 1999.

•This laid the groundwork for advancements in communication technology and women's professional empowerment

SUGGESTIONS:

- Promote wage parity by eliminating the gender pay gap.
- Put a stop to gender-based violence by passing and enforcing legislation against human trafficking, sexual harassment, and domestic abuse.
- Encourage work-life balance by putting in place laws that promote childcare assistance, parental leave, and flexible work schedules.
- Guarantee complete access to healthcare: Guarantee that mental health services and specialized treatment are available.
- Provide courses on digital literacy: women to acquire new skills in technology.
- Bringing the telegraph sector back to life: Include cutting-edge inventions and innovative technology.
- Support STEM education programs: Inspire women to work in technology.
- Offer coaching and mentoring: Encourage female professional progress.
- Provide adaptable work schedules: Encourage a work-life balance.
- Establish networking groups for women: Encourage communication and teamwork.

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