

The Machine Before Mechanisation: Typewriters, Women's Work and City of London Banks, 1870-1939

Kirsty Peacock
January 2025

1. Introduction

The relationship between women's clerical work and technological change in the City of London was established long before the advent of 'mechanised banking' in the late 1920s.¹ Peter Wardley has documented how British banks transformed through mechanisation programmes, emphasising the 'combination of woman and machine [as] a vital part of the strategy uniformly adopted by the British high street banks.'² Although the implementation of accounting machines and punch-card systems as enhancers of organisational efficiency and control is well-studied, the earlier integration of typewriters—and the women who operated them—has received comparatively little attention.³ While typewriters are often acknowledged as precursors to mechanisation, their contribution to establishing patterns in how banks managed the relationship between gender and technology has yet to be fully understood. Understanding typewriters' foundational role reveals how different types of banks developed varying approaches to managing technological change and patterns that would influence their subsequent modernisation.

This historiographical gap persists because two historical sub-fields – the study of women's clerical work and banking mechanisation – have developed along parallel but separate paths. Historians of women's employment, particularly in the US context, have documented how typewriters created new professional opportunities for women. For instance, Sharon Hartman Strom distinguishes between office technologies' skill-enhancing and de-skilling qualities, stressing how typewriters may 'have made [their operators] more indispensable to an employer.'⁴ Separately, banking historians have exposed how mechanisation triggered the transformation of banks 'into modern, pro-active, capitalistic enterprises.'⁵ These approaches risk missing connections between early technological integration and the gendering of bank work. The emphasis on women machine operators from the 1920s, in particular, has obscured earlier developments in how banks integrated new technologies and female labour and the evolving relationship between these two phenomena.⁶

¹ Heller. *London Clerical Workers, 1880-1914*, 2015.

² Wardley. 'Women, mechanization and cost-savings in twentieth-century British banks and other financial institutions' in *A Business and Labour History of Britain*. 2011. 52.

³ For instance, Bádiz-Lazo and Wardley, 'Banking on change.' *Financial History Review* 14/2 (2007), 182.

⁴ Hartman Strom, *Beyond the Typewriter*, 1992, 185.

⁵ Bádiz-Lazo and Boyns. 'The Business and Financial History of Mechanisation and Technological Change in Twentieth-Century Banking.' *Accounting, Business & Financial History* 14/3 (2004): 225–232.

⁶ Boyer and England. 'Gender, Work and Technology in the Information Workplace.' *Social & Cultural Geography* 9/3 (2008): 241–256.

Drawing on institutional comparisons across three key periods - the initial integration of typewriters before 1914, acceleration during the First World War, and developments of the interwar period - this paper demonstrates how different types of banks developed distinct approaches to managing technological change based on their existing organisational cultures and emerging needs. These experiences reflect how adopting new office technologies was not merely a logistical process but reflected and reinforced existing gender hierarchies, establishing patterns that would persist through subsequent waves of banking modernisation.

2. Methodology and Sources

As an AHRC CDA project with the Baring Archive, the principal methodology is using bank archives to uncover women's underestimated contributions and experiences to City of London finance from 1870 to 1939. The research draws on staff memoranda, personnel records, departmental correspondence, and salary books from multiple bank archives. Key sources include Barings' Typing Department records (1906-1939), the Bank of England (hereafter 'BoE')'s Women Clerks' Department files, and comparative materials from Lloyds and HSBC Archives, including branch memoranda and staff correspondence. From these sources, I created datasets tracking women's employment patterns, wages, and departmental distributions across different banks, with especially detailed data on Barings' female employees from 1873-1939. This quantitative evidence was contextualised with qualitative sources to understand how banks justified and managed women's work.

This approach aligns with Vickery's call for more detailed case studies in women's history to ensure sufficient sensitivity to empirical reality.⁷ The approach also follows the 'narrative turn' in business history, constructing chronological accounts to understand continuities and junctures in women's employment in bank work in different institutions. It also acknowledges how gender shaped both the creation and preservation of these sources.⁸

3. Overview of Findings

a. Early Integration of Women and Typewriters

Women had been employed at Baring Brothers & Co. Ltd from 1873 as coupon clerks, with typewriters introduced later as supplementary technologies.⁹ The formal 'Typing Department' emerged only in 1906, governed by existing Coupon Department rules with the addition of new protocols, such as the emphatic directive that:

*THE ORDINARY CURRENT WORK IS TO BE HANDED IN OR DICTATED THROUGH THE WINDOWS.*¹⁰

These arrangements balanced the maintenance of propriety through spatial segregation of the sexes with evolving business needs, expanding women's roles to include typing letters, index cards, invoices, minutes, and accounts.¹¹ This approach to technological integration - maintaining distinct departments while gradually expanding women's roles - reflected Barings'

⁷ Vickery. 'Golden Age to Separate Spheres?' *Historical Journal* 36/2 (1993): 383-414.

⁸ Popp and Fellman. 'Writing Business History.' *Business History* 59/8 (2017): 1242-1260.

⁹ Baring Archive (BA), Staff records, 'Daily Attendance Book', HCI.014.1.10.3.

¹⁰ BA, 'Typing Department' (October 1906), 2000406, 43. All capitals in original.

¹¹ Orbell, 'Changes in office technology' in *The International Business Archives Handbook*. 2017. 76.

reactive approach to technological change, where women's contributions grew and changed incrementally in tandem with the bank's needs.

The *BoE* developed another way after establishing its Women Clerks' Department in November 1893.¹² Initially focused on manual banknote sorting, typewriting work was quickly incorporated into its operations, with 'an old typing machine handed over to the Department from the Secretary's Office' seven months after its foundation.¹³ The *BoE* distinguished between specialisations through salary and skill requirements. Shorthand-typing demanded a 'thorough all-rounded education, a good memory... and general quickness' and commanded higher starting salaries (£63 p.a.) than sorting (£54 p.a.)¹⁴, which warranted only 'ordinary intelligence and fair education.'¹⁵ By 1910, the department's structure reflected this distinction while maintaining all roles within the Women Clerks' Department's overarching structure.

Clearing banks like the London City and Midland Bank (hereafter 'Midland') demonstrated a third model in which technology typically preceded women's employment, reflecting a more proactive approach to harnessing the cost efficiency of women's employment and office technologies. While Miss Anne Tulloch is usually cited as their first female employee, hired in 1907 to translate French and German newspapers¹⁶, personnel records reveal Miss Maggie Schmidt was employed as a Telephone Operator in 1905¹⁷, and Miss Watts was appointed as Tulloch's typist shortly after her appointment (also in 1907¹⁸). The fact that Managing Director Edward Holden's diary remarked upon women's translation work from 1907 but not the telephone operation work in 1905 implies a potential hierarchy in terms of how women's work was perceived and valued.¹⁹ While women's employment at the bank accelerated pre-war, with female recruits increasing from eight in 1911 to thirty-four in 1913²⁰, the personnel records rarely specify their roles, making it difficult to determine how many of these appointments were technology-driven. While these different institutional approaches to integrating typewriters and women workers persisted into the 1910s, the First World War accelerated existing patterns and forced banks to adapt their departmental structures.

b. The First World War as a Catalyst

The *BoE*'s experience – as the core institution floating British War Loans²¹ – exemplifies how wartime pressures intensified existing approaches to organising technological work. An April 1915 memorandum noted that 'the work of the Typing Office has very greatly increased'²²,

¹² Bank of England Archive (*BoEA*), Court of Directors Minutes: April-November 1893, G4/116, 5.

¹³ *BoEA*, 'Women Clerks' Department', 3A21/1, 2.

¹⁴ *BoEA*, 'Memorandum to the Committee for the Appointments and Promotions of the Staff re Women Clerks' (May 1910), E4/2, 195a.

¹⁵ *BoEA*, 'Memoranda on 'New Scheme' (1911), E4/1, 110.

¹⁶ See Wardley. 'Women, mechanization and cost-savings', 38; Holmes and Green, *Midland*. 1986, 128.

¹⁷ HSBC Archives (*HSBCA*), Staff Register (1905-1914), UK 0274-0068, 172.

¹⁸ *HSBCA*, Diary of interviews compiled by Edward Holden (1905-1907), (February 1907), UK 0026-0006, 586.

¹⁹ Women's telephone operator roles have also been overlooked, with one exception: Glew, "'Maiden, Whom We Never See'", *Information & Culture* 55/1 (2020), 30-50.

²⁰ Counted from *HSBCA*, Staff Register, UK 0274-0068, 170-73.

²¹ Osborne. *The Bank of England 1914-21*. Unpublished War History, 1926. 48; Kynaston, *Till Time's Last Sand*. 2017. 282.

²² *BoEA*, 'Memorandum to the Governor' (April 1915), C6/1.

requiring six additional typists to be drawn from the sorting staff, along with new typewriters and enlarged facilities. By 1916, these pressures had intensified, with increasing demands to expand the number of female clerks assigned to a broader range of offices.²³

More profound changes emerged in how banks structured technological work in the war's immediate aftermath. By the war's end, the demand for women who would remain employed long enough to progress to the 'confidential typist' grade drove structural reform of the Women Clerks' Department.²⁴ L.S. Edwards, Superintendent of Women Clerks and a former shorthand-typist herself, emphasised how those without supervisory skills could not advance, while those who qualified were removed from their specialised work to oversee clerical tasks, resulting in a loss of expertise.²⁵ The Bank's response in May 1922 was to formally split the Women Clerks' Department into two distinct hierarchies, creating a three-tiered advancement framework for shorthand-typists.²⁶ This structural reorganisation was accompanied by significant investment in professional development through the Bank's 'Shorthand and Typewriting School', initially relying on experienced staff as instructors while employing external expertise from Pitman's Shorthand Company.²⁷

Even clearing banks that sought to restrict women's employment after 1920 came to recognise typing as a distinct professional skill. A February 1920 Lloyds Circular stressed:

*In future, new women clerks will only be engaged in special work, such as shorthand and typewriting, letter opening, filing, machining and similar work.*²⁸

Unlike the *BoE*, however, Lloyds did not actively incentivise typists through higher salaries or bonuses, later acknowledging that 'the services of thoroughly competent shorthand-typists seem to us to have a greater value to the Bank than is reflected in the present salary scale'²⁹, noting the higher educational costs involved in acquiring shorthand-typist proficiency.

At Barings, while there is comparatively limited information on the expansion of typist work during the war, the staff of the Typing Department rose from five in August 1914 to eight in February 1919.³⁰ Though initially poised for reduction as male employees returned from military service, their total expanded to seventeen by 1924, reflecting typewriters' growing importance well into peacetime.³¹

c. Continuity Through Later Mechanisation

While the introduction of ledger-posting machines from 1928 is often portrayed as a revolutionary moment, the progress towards 'mechanisation' varied across different bank types. Lloyds Bank's proportion of women within the staff increased from 11.3% to 25.3% from 1928-1939, coinciding with the rolling out of mechanised accounting.³² This shift,

²³ *BoEA*, 'Memorandum to the Chief Accountant' (1916), C6/1, 87.

²⁴ *BoEA*, 'Overtime for Confidential Typists' (June 1921), C6/1, 45.

²⁵ *BoEA*, L.S. Edwards, 'Memorandum' (July 1919), E4/2.

²⁶ *BoEA*, 'Shorthand-Typists' (May 1922), E4/3, 38-39.

²⁷ *ibid.*, 40.

²⁸ Lloyds Archive (*LA*), 'Salaries, etc. Temporary Staff' (February 1920), Winton Collection, Fol. 2.

²⁹ *LA*, 'Staff Association Post-War Planning Report' (September 1944), GB386-HO/St/Off/26, 17.

³⁰ *BA*, Counted from the comparison of staff names of departments (1914-1918), 200406, 125a.

³¹ *BA*, 'Memorandum on the London Staff', 200406, 128-129.

³² *LA*, 'Lloyds Bank, 1920-1970 Staff – End Year' from Staff and Administration Department data, Winton Collection, Fol. 1.

however, built upon existing frameworks for managing technological labour, particularly the dominant notion (associated with the 1890s typewriter advertisements³³) that ‘women were more dexterous and more accurate keyboard operators.’³⁴

In 1929, Lloyds created a new category of ‘temporary’ women clerks, offering them extended probationary periods and reduced pension entitlements.³⁵ This arrangement echoed earlier cost-saving practices of employing women in short-term, high-turnover positions while adapting these strategies for the new era of machine banking.³⁶ By September 1934, this influx had occurred, and Lloyds had developed distinct categories of machine work: 637 Ledger machinists (30%), 583 Shorthand-typists (27%), 432 ‘Clerical only’ clerks (20%) and 479 women in ‘Other roles’ (23%).³⁷ These categories were further refined eight months later into six specialisations: Typist, Machinist, Machine Operator, Filist, Clerical, and Telephonist, reflecting increasingly specialised ways of organising women’s work.³⁸ This differentiation between types of machine work shows how banks moved beyond treating mechanical labour as a monolithic category, even while maintaining broader gender-based restrictions. It also reflects a growing tendency to define women’s work through the particular technology they worked with.

In contrast, the *BoE*’s approach to mechanisation reflected its distinct institutional culture. While it began categorising staff as ‘Shorthand-typists and Clerical (including machinists)’ in 1932³⁹, the Bank only began to mechanise bookkeeping in December 1934.⁴⁰ By March 1939, mechanisation remained limited in scope, with machine work concentrated in the Drawing Office and Dividend Pay Office’s ‘Machine Section.’⁴¹ A June 1937 review also revealed that while the ‘average staff of the Warrant section has been cut from 8 men to 5’, there were also ‘2 girls less owing to the mechanisation of the sheets against which there is the increase of 3 girls operating the machines.’⁴² This approach contrasted with clearing banks’ more straightforward substitution policies – exemplified by Midland’s Assistant Chief Accountant H.L. Rouse’s claim in 1933 that ‘two ledger-posting machines should enable two male clerks to be released and should only necessitate the engagement of one new female operator.’⁴³ The *BoE*’s mechanisation thus produced a more complex redistribution of labour than that which occurred in the clearing banks.

The *BoE*’s nuanced approach to mechanisation emerged amid growing challenges in recruiting female machinists. A December 1935 memorandum from Lloyds compiled the

³³ For instance, Harrison, *A Manual of the Type-writer*. 1888. 9: described the typewriter as ‘especially adapted to feminine fingers... involv[ing] no hard labor, and no more skill than playing the piano.’

³⁴ Wardley, ‘Women, mechanization and cost-savings’, 43.

³⁵ *LA*, ‘Women Staff’ (1933), Female staff (1928-37). GB386-HO/St/Wil/22, Fol. 21.

³⁶ See forthcoming work by McKinlay and Taylor on marriage bars and mechanisation (2025).

³⁷ *LA*, ‘Women Staff 30.9.34’, Winton Collection, Fol. 2.

³⁸ *LA*, ‘Memorandum from the Staff Secretary to the Manager: Women Staff’ (May 1935), GB386-HO/St/Wil/22, Fol. 21.

³⁹ *LA*, ‘Bank of England. Women Staff’, GB386-HO/St/Wil/22.

⁴⁰ *BoEA*, ‘Original Rental Agreement’ (December 1934), AC2/1, 29.

⁴¹ *BoEA*, ‘Staff as at 1st March 1939’, E4/31.

⁴² *BoEA*, Memorandum to Loans Office (Jan. 1939), AC2/1, 150.

⁴³ Rouse, Journal of the Institute of Bankers (Dec. 1933), 483 cited in Green and Holmes, *Midland*, 173-174.

difficulties in finding ‘Girl Candidates’: Barclays reported female applicants were ‘rather patchy’ and increasingly salary-conscious; Midland Bank noted persistent recruitment challenges despite a slight improvement; and Westminster Bank cited long-term difficulties in securing suitable candidates.⁴⁴ While clearing banks reduced requirements and remuneration for machinist roles in 1929, the *BoE* maintained more rigorous standards for machine operators from 1935, integrating them into existing departmental structures, stressing the need to render ‘the working conditions... more comfortable for the Operators.’⁴⁵

Traditional merchant banks like Barings maintained more conservative approaches to technological adoption. While shorthand-typists at Barings increased modestly from 17 to 25 between 1924 and 1937, Coupon Department clerks declined slightly from 30 to 28, suggesting typewriters supplemented rather than disrupted existing work patterns.⁴⁶ The bank’s resistance to mechanical accounting systems persisted - a January 1968 memorandum reveals that mechanisation occurred only on a departmental basis, with no comprehensive strategy.⁴⁷ For institutions like Barings, the most significant technological change during the interwar period remained the gradual expansion of typewriter work.

4. Conclusion

The relationship between women’s work and technological change from 1870-1939 manifested distinctly across different types of City banks. Rather than marking a clear break, the heralded mechanisation of the late 1920s built upon patterns established through decades of experience managing typewriters and their operators. Three distinct approaches emerged: merchant banks like Barings proved reactive, carefully integrating typewriters and women operators within existing structures to preserve traditional practices; clearing banks adopted a proactive stance, readily creating new female positions around emerging technologies; while the *BoE* developed a hybrid model that combined careful integration with innovative technological hierarchies.

The typewriter era established crucial precedents for how new technologies would be gendered and how women’s labour would be organised around them. Unlike later machine operator positions, typewriting commanded status as skilled work, despite both roles involving technology use and labour substitution. This higher valuation of typewriting challenges assumptions about office technologies inevitably deskilling women’s work, revealing how early experiences with typewriters influenced each bank’s distinctive path toward modernisation.

⁴⁴ *LA*, ‘Girl Candidates’ (Dec. 1935), GB386-HO/St/Wil/22.

⁴⁵ *BoEA*, ‘Powers Machines – Questionnaire’ (March 1936), AC2/1, 60.

⁴⁶ *BA*, Staff counts compiled from ‘Annual Reports on Women Clerks’ in Staff Memoranda Vol. 2: 200463 and Vol. 3: 200606.

⁴⁷ *BA*, ‘Comments re Mechanization and the Control of a Data Processing Installation’ (January 1968), 204909, 1.