

3. The Industrial Age

Abstract: The age of industrialization was not only shaped by technological innovations, for example improvements in paper production or the application of steam power for printing. It was also affected by many sociocultural developments like, for example, urbanization or the steep rise of literacy rates, especially during the second half of the nineteenth century. Both types of development had direct and indirect effects on the book trade and therefore affected the overall acceptance context of innovations. Whereas some new methods were accepted almost immediately, other inventions took decades to manifest themselves in book production. Surprisingly, despite many innovations toward a cheaper production of books, the three-volume-novel, an expensive (and obsolete) publication format specific for Great Britain, remained the preferred form of publication for many publishers until the end of the nineteenth century. Reason for this artificial hindrance of acceptance for cheaper book formats was, among other things, the successful system of commercial circulating libraries, especially Charles Edward Mudie's "Select Library."

Keywords: acceptance of mass-production, industrialization, industrial revolution, urbanization, circulating libraries, print culture, mass-production, publishing industry

Some historians claim that the nineteenth century revolutionized the book publishing industry in Europe, especially in Great Britain. Others merely see a logical continuation of the impulse set off by Gutenberg's press in the fifteenth century. It can be observed throughout the centuries following Gutenberg's invention that the same basic technology to produce books was used and only slowly improved in minor ways. The first major innovation in book production – stereotyping – was initially conceived in the eighteenth century, but it needed much more time to finally become routine procedure despite its practical and economic advantages. Book printers also neglected the application of steam power for decades after it had become available to produce printed material. Only the second major improvement, the development of faster methods and new materials for paper production, was accepted relatively fast and set new standards in the printing business.

Still, when considering the lack of changes during 300 years of hand press printing, there actually is a panoply of changes in the book industry, especially in Great Britain.⁵⁰⁰ David McKitterick suggests the year 1830 as a turning point in

500 Jean-Yves Mollier and Marie-Françoise Cachin, "A Continent of Texts: Europe 1800–1890," *A Companion to the History of the Book*, eds Simon Eliot and Jonathan Rose, 2nd ed. (Chichester, 2020), 485–497, 485.

which revolutionary dynamics become apparent due to technological and economic changes.⁵⁰¹ Stephen Colclough labels the effects of industrialization as a second book revolution after the introduction of printing in the fifteenth century and adds that “simply the increased output of the industry created a greater diversity in quality, formats and prices to attract audiences.”⁵⁰²

It needs to be pointed out, though, that the impetus for changes in the book industry are not necessarily technological advances, even in a time of drastic technical changes like the nineteenth century. As will be shown, many important changes during the nineteenth century were actually invisible. Although the age of industrialization is primarily equated with technological advancements, the sociocultural transformations in this era must not be neglected. Adriaan van der Weel speaks of a sociotechnical spiral

in the dialectic between social and technological factors, in which, however, technology acts as a catalyst. It both contributes the initial driving force and represents the conditions enabling change, initially as well as later. Technologies are usually created without a clear view of their full ultimate deployment. They usually suggest social uses *after* they are made available.⁵⁰³

This perspective, even though not specific for the industrial age, is necessary to fully understand the development of the material aspects of the book during the nineteenth century and the changes of the book value categories.

3.1. Context: England During the Industrialization

In the middle of the nineteenth century, Great Britain was, as John Feather puts it, “truly a world power, with a functioning system of representative (although far from democratic) government, an efficient infrastructure for business and a

501 David McKitterick, “Introduction,” *The Cambridge History of the Book in Britain: Vol. VI, 1830–1914*, ed. David McKitterick (Cambridge, 2009), 1–74, 3–4. With this argument, McKitterick also justifies the chosen time frame of the sixth volume of the *Cambridge History of the Book in Britain*. He also adds to his justification the political unrest in Europe during that time as well as the publication of several important works and the death of a whole generation of printers during the 1830s.

502 Stephen Colclough, “Introduction,” *The History of the Book in the West. A Library of Critical Essays. Vol. IV: 1800–1914*, ed. Alexis Weedon (Farnham, Surrey, 2010), xi–xxviii, xxv.

503 Van der Weel, *Changing our Textual Minds*, 5.

broadly equitable system of law.⁵⁰⁴ In other words, being an economically and politically stable country, it offered a fertile ground for growth and changes even for the – then comparatively small – business of the book trade.⁵⁰⁵

While various industries in England rather quickly accepted innovative technological improvements, the field of book production lagged behind considerably in some cases. Changes in society, however, had a first subtle but still palpable impact on the world of the book. As Simon Eliot has examined, the population grew about 77 per cent from 1861 to 1911. At the same time, the output of the printing presses rose by 154 per cent.⁵⁰⁶ Even more significant for the publishing industry was the factor of urbanization, the growing importance of towns and the founding of new ones. People moved from the countryside to the cities to find work. The 1881 census showed that more than twice as many people lived in cities than in the countryside. Only three decades before, the number of people living in towns was just slightly in the majority.⁵⁰⁷ This development expanded and slowly transformed the market for reading material. Still, neither urbanization nor the increase in population explains the increase in literacy rates. Since many children were forced to contribute to the family income, they were unable to attend school and therefore were not able to profit from the educational system.⁵⁰⁸ However, industrialization and modernization created new kinds of jobs that required a literate workforce. The 1870 Elementary Education Act, also known as Forster's Act, was a direct result.⁵⁰⁹ The desire to become literate developed not only because of the state but also in opposition to

504 Feather, *History of British Publishing*, 72.

505 Even though Britain was an economically stable country, at least the years of monetary crises, 1825 and 1864–1866, ought to be mentioned. McKitterick, "Introduction," 4. Especially the bank crisis in late 1825 resulted in harsh repercussions on the British publishing business. Most notably, the leading publisher Archibald Constable (Walter Scott's publisher) had to declare bankruptcy. Many contemporaries, like Samuel Smiles, Charles Knight and Frank Arthur Mumby, commented on this. John A. Sutherland, "The British Book Trade and the Crash of 1826," *The Library*, 6th ser., 9 (1987), 148–161.

506 Simon Eliot, *Some Patterns and Trends in British Publishing, 1800–1919* (London, 1994), 3.

507 McKitterick, "Introduction," 23–24.

508 McKitterick, "Introduction," 43.

509 Patrick Jackson, *Education Act Forster: A Political Biography of W. E. Forster (1818–1886)* (Madison, 1997); Allen Warren, "Forster, William Edward (1818–1886)," *Oxford Dictionary of National Biography* (Oxford, 2008) <<http://www.oxforddnb.com/view/article/9926>> (accessed: 11.12.2019).

it. Political participation of the suffering and suppressed workforce was a logical appeal. The encouragement and pursuit of self-improvement in the Victorian age could best be satisfied by the book trade. Indeed, throughout the industrial age, the whole society became more and more dependent on printing so that “illiteracy was no longer merely a social stigma, it was a fundamental economic disadvantage.”⁵¹⁰

Throughout the late nineteenth century, book production was still a rather small part of the printing industry.⁵¹¹ That in itself is a little surprising because the printed book, as a medium, was supposed to be in its heyday: even though books were still copied by hand in some places, especially in Ireland, manuscript production was rarely a threat to the printed book business.⁵¹² Further, other means of communication, information and entertainment that would compete with the dominance of the printed word in the future, like radio broadcasting or television, did not yet exist.⁵¹³

With this basic context of the book trade in mind, this chapter addresses the most important developments of production, distribution and reception of books. Since many factors that shaped the book industry are interdependent, there is no obvious sequence in which they ought to be discussed. Following Thomas Adams and Nicolas Barker, this chapter chooses the stage of publication, “the initial decision to multiply a text or image for distribution,”⁵¹⁴ as the starting point. This stage addresses not only the situation for publishers but also the situation for authors, who gained in importance throughout this time frame. The next part elaborates on the developments of technological possibilities of printing from plates, paper production and the new presses. It will, however,

510 Feather, *History of British Publishing*, 86.

511 Simon Eliot, “From Few and Expensive to Many and Cheap: The British Book Market 1800–1890,” *A Companion to the History of the Book*, eds Eliot and Jonathan Rose, 2nd ed. (Chichester, 2020), 471–484, 475–476. Periodicals were the biggest item in print production and circulation.

512 James Raven, Helen Small and Naomi Tadmor, “Introduction: The Practice and Representation of Reading in England,” *The Practice and Representation of Reading in England*, ed. James Raven (Cambridge, 1996), 1–21, 7: “The proportion of available manuscript texts compared to printed matter varied, as did the types of text produced by hand or print, but even in the eighteenth and nineteenth centuries the sovereignty of print was on occasion challenged by written communications.”

513 Leslie Howsam, “The History of the Book in Britain, 1801–1914,” *The Book: A Global History*, eds Michael Felix Suarez and H. R. Woudhuysen (Oxford, 2013), 300–310, 300.

514 Adams and Barker, “New Model for the Study of the Book,” 15.

exclude the development and breakthrough of mechanized typesetting in the late 1880s/ early 1890s with the Linotype and Monotype machines.⁵¹⁵ The mechanization of typesetting, as John Feather argues, was probably the most complex change for printers. However, it was initially required in newspaper and magazine production, and not book production.⁵¹⁶ Monotype machines were only commercially used from 1897, and effects on the price of books can only be seen when “the First World War pushed both prices and wages higher.”⁵¹⁷ Therefore, it will be neglected for the present study as their implementation and acceptance take place in modernity.

The distribution chapter, even though it comes before reception in the sequence of the book’s life cycle, will conclude the analysis. Not only does it emphasize the significance of the much-neglected part of distribution within book history, it also underlines the special role of commercial lending libraries, especially Mudie’s “Select Library.” Borrowing books instead of buying them was an accepted alternative in the second half of the nineteenth century. Apart from guiding literary taste with its economic power as an important customer of publishers, Mudie’s immense control also led to the establishment and perseverance of the so-called three-decker (or triple-decker) novel. The success of circulating libraries discouraged possible developments and acceptance of other publishing strategies that would make use of cheaper production methods. It thereby artificially slowed down changes of the book form in England for several decades. The triple-decker is a unique example in England that illustrates the complex interdependence of social and cultural developments in connection with book value categories. Mudie’s “Select Library” was a decisive agent

515 Allan Dooley, *Author and Printer in Victorian England* (Charlottesville, 1992), 5–6. Allan Dooley uses the same time frame with the same argument: the introduction of mechanical composition is such a fundamental change in book production that it would be unwise to integrate the years afterwards in a chapter concerning the changes in Victorian times. The basic idea of mechanical typesetting with Linotype was that the operator enters a whole line on a keyboard. The line would be cast by the machine as a single piece, called a “slug.” In comparison, the monotype system did not combine the elements of composing and casting. The operator entered a text which was encoded on a roll of paper with holes. The paper was then inserted in a second machine which cast the whole line, but in individual pieces. This enabled easy correction if necessary. Errors with Linotype could only be corrected by casting the whole line again. Gaskell, *New Introduction to Bibliography*, 274–296.

516 Feather, *A History of British Publishing*, 88.

517 Alexis Weedon, *Victorian Publishing: The Economics of Book Production for a Mass Market, 1836–1916* (Aldershot, 2003), 78.

in the context of acceptance for cheaper, smaller books. For decades, novels in three volumes added value to the publication and remained the more prestigious publication form.

3.1.1. Publication

The nineteenth century was affected by the continuation of the slow separation of the roles of printer, publisher and bookseller into three distinct professional activities, a progress in development since the seventeenth century.⁵¹⁸ Whereas William Caxton, for example, was occasionally publisher, printer, author (either as translator or writer of paratextual elements) and bookseller at the same time in the late fifteenth century, authors in the nineteenth century only seldom published their own works and therefore had to rely on publishers, who then negotiated with printers and booksellers. Added to that, with the growing importance of publishers, their self-perception affected the publishing business even more. The book business became more and more complex during the industrial age. Reading material of manifold categories was written to be published which created the need for professional publishers' readers to maintain the literary quality of the publishing houses. On the other hand, authors, for the same reason, slowly became dependent on literary agents who, for their part, negotiated with the publishers since, as Feather summarizes, "authors were writers, not businessmen."⁵¹⁹

Authors

In its most basic sense, an author is someone who writes a text in order to be published. Whether or not they get paid for it and whether or not they see themselves as authors is irrelevant. This activity might be entrepreneurial, artistic, political or intellectual, or a combination of these.⁵²⁰ While Feather rightly laments that the author is oftentimes the "forgotten figure in the history of publishing and the book trade,"⁵²¹ the importance of the author in the publishing

518 Feather, *History of British Publishing*, 82.

519 Feather, *History of British Publishing*, 140. For the roles of publishers' readers and literary agents in Britain, see, for example, David Finkelstein and Alistair McCleery, *An Introduction to Book History*, 2nd ed. (New York, 2013), 86–100.

520 Patrick Leary and Andrew Nash, "Authorship," *The Cambridge History of the Book in Britain: Vol. VI, 1830–1914*, ed. David McKitterick (Cambridge, 2009), 172–213, 172–173.

521 Feather, *History of British Publishing*, 132.

industry gained weight throughout the nineteenth century. In his monograph *The Rise and Fall of the Man of Letters*, John Gross even argues that the years between 1880 and 1914 represent the time in which the interest in authors had been as strong as never before and since.⁵²² There are several indicators proving this rise of importance: one indicator is the Copyright Act of 1842 even though the act itself was not as important as its successors in 1911, 1958 or 1988.⁵²³ Whereas previous copyrights protected the publishers rather than the authors, the 1842 Act extended the copyright to 42 years or seven years after the death of the author, thus creating more incentive for authors to write.⁵²⁴ As a consequence, many authors saw their position strengthened and felt the incentive to produce more works in order to make more money. New texts became more interesting for publishers so that they were willing to pay authors more money.⁵²⁵ According to Simon Eliot, writings submitted to publishers increased drastically at this time although the economic success was seldom divided equally between authors. While most authors were unable to live from writing alone, only some were not merely becoming wealthy, but furthermore gained the status of true celebrities.⁵²⁶ Writers were finally becoming respected artists and being an author was recognized as a profession in the 1860s.⁵²⁷

The 1870s again saw a rise in the numbers of authors. This time, the impetus for this development was the expansion of journalism.⁵²⁸ Newspapers and magazines, affordable for almost everybody (in contrast to books), became the most popular form of publication and more writers were needed to provide texts.⁵²⁹ The increase in newspaper and magazine production in turn, as Laurel Brake argues, encouraged the act of reading in society, enhanced the professionalism of journalism, literature and authorship in general and helped separating

522 John Gross, *The Rise and Fall of the Man of Letters: Aspects of English Literary Life Since 1800* (London, 1961), 216.

523 Raven, *Business of Books*, 321. For a succinct overview of the most important changes in copyright during the nineteenth century, see Catherine Seville, "Copyright," *The Cambridge History of the Book in Britain: Vol. VI, 1830–1914*, ed. David McKitterick (Cambridge, 2009), 214–237.

524 Eliot, "From Few and Expensive to Many and Cheap," 474.

525 Mollier and Cachin, "A Continent of Texts," 489.

526 Eliot, "From Few and Expensive to Many and Cheap," 476–477.

527 Mollier and Cachin, "A Continent of Texts," 494.

528 Leary, Nash, "Authorship," 194.

529 Feather, *History of British Publishing*, 137.

journalism from literature.⁵³⁰ Whilst contributions in periodicals initially were mostly anonymous, they were later “revealed and commodified in book publication,”⁵³¹ signifying a “public thirst for the named individual that nineteenth century reader/consumers exhibit[ed].”⁵³² Readers slowly became interested in authors and not only in texts. This is an important observation concerning the value of books: authors themselves add value to the product.

While newspapers and magazines were looking for journalists and their contributions, publishers became aware of the growing economic opportunities of novels in the second half of the nineteenth century. More stories were needed and therefore, more authors. In order to obtain good writers to satisfy a growing market of readers, publishers were, albeit slowly, offering better conditions for authors.⁵³³ This is noteworthy if one considers that publishers traditionally preferred to turn to cheap reprints of successful texts in financially uncertain times since publishing new texts was always a risk.⁵³⁴ Added to that, no copyright payment was required, which enhanced the possibility to make a profit.

Income of authors was highly uncertain. The eighteenth and nineteenth centuries witnessed several authors who became true celebrities. Goethe, Zola, Twain, Carroll and Tolstoy fall into that category. Charles Dickens is an especially popular example of an author of the Victorian age who had become a wealthy celebrity during his lifetime. However, his achievements, his fame and his relationships with his publishers, no matter how fascinating they are, are far from being representative of the common author in the nineteenth century.⁵³⁵ As James Raven puts it: “The fortune-making of the few did nothing to improve the general lot of writers.”⁵³⁶ Usually, a publisher would commission an author to create a work with specific information about the topic and the length of the text.

530 Laurel Brake, “The ‘Trepidation of the Spheres’: The Serial and the Book in the 19th Century,” *Serials and Their Readers, 1620–1914: Papers Originally Read at the 14th Annual Conference on Book Trade History at the Birkbeck College, Centre for Extra-Mural Studies, University of London, November 1992*, ed. Robin Myers (Winchester, 1993), 83–102, 84.

531 Brake, “‘Trepidation of the Spheres,’” 91.

532 Brake, “‘Trepidation of the Spheres,’” 93.

533 Mollier and Cachin, “A Continent of Texts,” 488.

534 Leary and Nash, “Authorship,” 175.

535 Mollier and Cachin, “A Continent of Texts,” 493–494. The seminal study on Dickens’s life and work and his publishers still is Robert Lowry Patten, *Charles Dickens and his Publishers* (Oxford, 1978).

536 Raven, *Business of Books*, 333.

A fee would be fixed beforehand. Additionally, the agreement might also include further information about the number of copies and payment in the event of a reprint and so on.⁵³⁷ Once an author had, for example, written a successful novel, his or her income was basically safe. But even then, writers were never protected against a sudden decline in sales.⁵³⁸

The three most common contracts between author and publisher during the Victorian age were publishing on commission, half-profits and outright sale of copyright. Publishing on commission, that is the agreement of the author paying for some or all the costs of the publication, existed throughout the century. However, it was only seldom applied for novels but rather for poetry, and especially legal works and medical books since these required constant revisions.⁵³⁹

Half-profits, the agreement to share the profits between publisher and author, naturally bore the risk that the authors might get nothing or just little in case their novel did not sell well. Also, authors had to rely on the honesty of the publisher, a virtue, which was in places (but certainly not always) justifiably questioned. Leary and Nash quote Besant's suggestion to confront publishers with "wholesome suspicion," just like one should deal with businessmen.⁵⁴⁰

The outright selling of copyright on the other hand guaranteed an immediate income for the author. But this in turn bore the risk of not benefitting from a huge success. In the closing years of the nineteenth century, authors and their agents pressed for royalties to be able to participate in the assets of profits. In 1877, Anthony Trollope wrote a letter to Thomas Hardy advising him that the royalty system was best and that he should try to get his publisher to pay him royalties in case he was not in need of immediate money.⁵⁴¹ Interestingly enough, this advice must have been born out of bad experience since Trollope sold most of his works outright to his publishers. He is, however, notorious for having changed his publisher no less than 16 times.⁵⁴² Nevertheless, such a royalty agreement, though popular in the United States of America by then,⁵⁴³ became custom in Britain only after the 1901 Net Book Agreement, which, in essence, fixed book prices

537 Feather, *History of British Publishing*, 133.

538 Leary and Nash, "Authorship," 178, 187. Especially playwrights had a hard time since the audience's interest focussed more and more on the actors and managers, not on the playwright.

539 Leary and Nash, "Authorship," 177, 207.

540 Leary and Nash, "Authorship," 208.

541 Leary and Nash, "Authorship," 207.

542 Leary and Nash, "Authorship," 189, 207.

543 Howsam, "History of the Book, 1801–1914," 304.

and thus offered a fair basis on which royalties should be paid. The acceptance of these royalties, and the emergence of literary agents by publishers in general both symbolize the progress in recognizing the author as a vital and respected element in the publishing trade.⁵⁴⁴ Authors consequently added more value to the book. The establishment of the Society of Authors in 1884 also helped to reinforce the sense of authorship as a professional activity. It instructed authors concerning literary property and contractual agreements with publishers and generally fought for their rights.⁵⁴⁵

A final indicator of the growing acceptance of authorship as a profession is the official recognition of the government: "In 1861, the official government census listed 'author' for the first time alongside medicine and law as profession, thus formally recognizing the migration of authorship from the realm of skilled workers to the realm of professionals."⁵⁴⁶

Indeed, authors were now deemed important enough to be funded. Consequently, state supports of authors were established. Institutions like the Royal Literary Fund, the Royal Society of Literature and the Civil List all tried in their way to encourage the creation and production of sophisticated literature. Yet, those institutions were commonly criticized by the Society of Authors for being too arbitrary in their decisions. And relying on state support oftentimes carried the stigma of charity.⁵⁴⁷

Most authors during the nineteenth century were dependent on other occupations. Starting in the late 1870s, newspapers offered more permanent positions for writers. Before that, and even for several authors afterwards, writing was seldom the primary but rather just an additional income. In his 1962 study "The Sociology of Authorship," Richard Altick analysed the social background of authors in the nineteenth century and came to the conclusion that "[t]he church, the arts, and government obviously were the three institutions which helped subsidize the production of literature in the nineteenth century."⁵⁴⁸

544 Feather, *History of British Publishing*, 141. For further examples of contractual agreements between authors and publishers and examples, see Leary and Nash, "Authorship," 175–178. More detailed information is offered in Charles Clark (ed.), *Publishing Agreements*, London, 1980.

545 Leary and Nash, "Authorship," 209.

546 Mary Ann Gillies, *The Professional Literary Agent in Britain, 1880–1920* (Toronto, 2007), 18.

547 Leary and Nash, "Authorship," 210.

548 Richard Daniel Altick, "The Sociology of Authorship: The Social Origins, Education, and Occupations of 1,100 British Writers, 1800–1935," *Bulletin of the New York Public Library*, 66 (1962), 389–404, 401.

While in the first half of the nineteenth century writers were mainly occupied as clergymen, government officials or civil servants, writers in the latter half were mainly teachers and professors.⁵⁴⁹

But despite these grim prospects for a literary career, the number of writers, according to the official census returns for England and Wales seems to be rising steadily from 626 authors in 1841 to 13,786 in 1911.⁵⁵⁰ Even though one should use these figures with caution, the general trend seems obvious enough: authors were on the rise.

Publisher

All the developments during the industrial age had to be assessed by the publisher in order to make economically viable decisions. Even though publishers were not solely interested in economic profit, it was of paramount importance to reach enough sales to avoid bankruptcy.⁵⁵¹ The selective process of publishers decidedly steered the shaping of the book trade on all levels during the nineteenth century. Even though publishers whose primary goal was to make money existed, most publishers had a self-conception that was characterized by an awareness of cultural duty. The analogy of “gatekeeper of ideas,” first used by Lewis A. Coser on the primary role of publishers, is a fitting description.⁵⁵² Gerald Gross summarizes the self-image of publishers in the nineteenth century as follows:

Out of the ethos of social Darwinism and the Industrial Revolution emerged the individual publisher of the nineteenth century. He was his own man in every sense of the word. He carried on personal publishing when that type of publishing was at its peak. In short, he believed in what he published. Thus, his personal character was symbolized in the books on his list and the honesty of his relations with authors and his publishing colleagues. The two were inextricable. This individualistic publishing makes a dramatic contrast with today’s trend towards depersonalized merger and amalgamations, with the substitution of the personal publisher for the editorial board.⁵⁵³

549 Altick, “The Sociology of Authorship,” 401.

550 Altick, “The Sociology of Authorship,” 400.

551 A striking example of bankruptcy is analysed in Bernard Warrington, “The Bankruptcy of William Pickering in 1853: The Hazards of Publishing and Bookselling in the First Half of the Nineteenth Century,” *Publishing History*, 27 (1990), 5–25.

552 Lewis A. Coser, “Publishers as Gatekeepers of Ideas,” *Annals of the American Academy of Political and Social Science*, 421 (1975), 14–22. The concept of “gatekeeping” initially stems from communication and social sciences concerned with selection of newsworthy material.

553 Gerald Gross, *Publishers on Publishing* (New York, 1961), xii.

Still, economic safety was a precondition to ensure the future of the publishing house. John Feather expresses this in his slightly exaggerated style with claiming that “[f]or some nineteenth-century publishers books were a crusade or a cultural duty; for others, however, and they were in the majority, books were a product, authors were suppliers and booksellers were customers.”⁵⁵⁴

The publisher’s influence on authors concerning content is demonstrated in the following quote from publisher Longmans addressing author Eliza Acton⁵⁵⁵ after she had handed in a poem for publication: “It is no good bringing me poetry; nobody wants poetry now. Bring me a cookery book, and we might come to terms.”⁵⁵⁶ Even though Acton had already written a text, Longmans refused to publish it because its chances for economic value was, according to his assessment, not high enough in “those days.” The readers’ taste was constantly changing. After all, Acton’s publisher laments that readers do not want poetry “now.” Indeed, poetry has been very popular in the eighteenth century. Instead, Longmans is quite certain of what will sell instead: cookery books, which was another speciality of Acton. When she later handed in *Modern Cookery for Private Families* (1845), it became a considerable success.⁵⁵⁷ Thus, it was the publisher responding to and estimating the fluctuating demand of the market that visibly influenced the categories of texts that were being published.

To complicate things further for publishers, the amount of texts and different genres was growing. Even though there is a minimum print run under which the use of the printing press would not be viable, there is also the danger of overprinting. Therefore, it was prudent of the publisher to produce more texts rather than just more copies to distribute the risk over many titles. Printing output expanded as well as the diversity of the publishing categories. Considering this boost of new texts, the market became harder to assess for publishers. Even though the growth of new readers initially meant more potential customers, it still had to be assessed what kind of reading material was wanted, not unlike in Caxton’s time. In the late eighteenth century, publishers like John Bell

554 Feather, *History of British Publishing*, 141. He also offers several examples such as Macmillan, Cassell and Murray to point out the variety of new publishing in the nineteenth century.

555 Elizabeth Ray, “Acton, Eliza (1799–1859),” *Oxford Dictionary of National Biography* (Oxford, 2008) <<http://www.oxforddnb.com/view/article/73>> (accessed: 11.12.2019).

556 Quoted in Frank Arthur Mumby, *Publishing and Bookselling* (London, 1954), 254.

557 Ray, “Acton, Eliza (1799–1859).”

represented the future of the trade, focussing on reprint series.⁵⁵⁸ Bell's concepts of his series *British Theatre* and *The Poets of Great Britain* were innovative and ground-breaking in his days. The volumes have a universal design so that the sets appear as a unit. The books were produced in a small duodecimo format that fit easily in one hand. However, the printing quality may be wanting, and the paper appears to be rather thin. Instead, Bell focused special attention on his title-pages, which were uniformly designed. Every book was embellished with a portrait of the author and further illustrations. The inclusion of a portrait of a significant poet had been common practice since the sixteenth century, but Bell expanded on this idea: it was important to him that the portraits were done after paintings or busts that were (allegedly) very close to a truthful depiction of the poet. Indeed, this was usually stated underneath the portrait (for example "From the Original Statue. . ." or "Engraved after an Original Picture. . .") To ensure realistic portraits, he employed highly esteemed artists like Thomas Cook,⁵⁵⁹ John Thornthwaite or Charles Grignion⁵⁶⁰ and invested a great deal of money into these frontispieces.⁵⁶¹ Bell's innovative features of his publications were also commented on a few decades later. Charles Knight, for example, described Bell as "the mischievous spirit – the very Puck of booksellers" and derogatorily remarked on Bell's cheap production methods as well as modern approaches to typography.⁵⁶²

The appeal of reprint series was a direct consequence of the ruling in the case "Donaldson v. Becket," which effectively ceased perpetual copyright on texts. It became economically reasonable to reprint old texts since no one had to be

558 Stanley Morison, *John Bell, 1745–1831: Bookseller, Printer, Publisher, Typefounder, Journalist &c.* (London, 1930). Sadly, Bell has been a neglected figure in English printing history, and after briefly being rediscovered by Stanley Morison in 1930, only few works have focused on Bell's career since.

559 Cook worked for other publishers as well and was famous for his reproductions of Hogarth works. For some examples of Cook's engravings, see "Thomas Cook," *National Portrait Gallery* <<https://www.npg.org.uk/collections/search/person/mp14556/thomas-cook>> (accessed: 05.12.2019).

560 See "John Thornthwaite," *National Portrait Gallery* <<http://www.npg.org.uk/collections/search/person/mp53034/j-thornthwaite>> and "Charles Grignion," *National Portrait Gallery* <<http://www.npg.org.uk/collections/search/person/mp94760/charles-grignion>> respectively (both accessed: 05.12.2019).

561 Thomas F. Bonnell, *The Most Disreputable Trade: Publishing the Classics of English Poetry, 1765–1810* (Oxford, 2008), 108.

562 Charles Knight, *Shadows of the Old Booksellers* (London, 1865), 276–278.

paid. This led to lower prices and a larger market.⁵⁶³ Stereotyping, cheaper paper as well as the development of the working classes as a reading group further supported a focus on reprints. In the middle of the nineteenth century, however, it was no longer sufficient to do just that. More and more, reprint series encountered rigid competition and it was only a matter of time until the market was satisfied. It became inevitable that publishers needed new texts to satisfy the demand of a growing market. Bell already added value to his reprint series in the late eighteenth century with enhancing the presentation of his works. Content as well as materiality of the book tended to signify social distinction: due to their cheapness, most reprint series were mainly directed at working class readers with the intention of self-education. Middle class readers, on the other hand, tended to read new texts which were in their first editions produced in a more elaborate fashion. Consequently, manifold topics and genres were gaining momentum even in the early nineteenth century. Especially the novel was rising in importance for the publishing industry.⁵⁶⁴

3.1.2. Manufacture

Printing from Plates

The first major innovation of the printing process – stereotyping – needed much time to finally become the main procedure to be used in book production, despite its ostensibly logistical and economic advantages for the publisher. Stereotyping is the practice of creating metal plates from whole set pages. The initial invention and the following processes towards a viable implementation of printing from plates is highly representative of initial resistance to innovations in the production of books and eventual acceptance. After all, printing from plates was obviously a threat to type foundries. This necessitates a closer look at its history.

In the late eighteenth century, paper was still the main factor that made printing a risky business. Its production was very expensive, and an incorrectly calculated print run could have meant bankruptcy for the printer. On the one hand, publishers lost money if only a fraction of the print run had been sold. On the other hand, demand that exceeded the print run meant a lost opportunity for profit. Such successful texts could of course be reprinted. However, resetting

563 Feather, *History of British Publishing*, 134.

564 Leah Price offers a useful analysis of how publishers adapted the novel as a commodity from the eighteenth to the nineteenth century. She focuses, among other factors, on gender-specific marketing and the emerging book reviews: Leah Price, *The Anthology and the Rise of the Novel: From Richardson to George Eliot* (Cambridge, 2000).

Simon Rosenberg - 9783631804261

the type had to be done manually at the time and was very time-consuming and thus expensive. Using standing type to overcome this drawback required ample backup supplies of type material so that the printing press could still operate and print other material. This tied up significant equipment and hence financial capital without knowing whether additional copies were ever going to be needed. Using standing type was therefore only viable for printers with a huge set of type material, ample storage space and sufficient financial reserves. This procedure was mainly used if the necessity for a reprint was quite certain and was clearly the exception for printing houses.⁵⁶⁵

After more than three hundred years of manual typesetting, the invention of stereotyping seemed to be a consequential breakthrough in book production for larger print runs and effectively smaller prices per copy to reach new customers. But stereotyping, invented in the early eighteenth century by the German pastor Johann Müller in Holland, and basically re-invented by William Ged in Edinburgh, did not become a standard procedure for book production until the middle of the nineteenth century. Most book historians usually declare the 1840s as the breakthrough of stereotyping. Dooley argues that it may well have become established then but only really became the norm by the 1880s.⁵⁶⁶

The basic idea was initially conceived much earlier to create plates from woodcuts and wood engravings. To create stereotype plates, pages were typeset by hand and plaster was poured onto the forme. After the plaster had dried, the mould was retrieved and then baked. After it had cooled off, the mould could be used to pour molten metal into it to cast a plate. These plates would then be stored and used again when a new print run was required. Consequently, the complex, lengthy and therefore expensive task of resetting the pages by hand for further editions would no longer be necessary. Printing books from plates ultimately meant saving time and money and ensured free type distribution. In theory, the technology of stereotyping allowed printers to print a small edition, evaluate further demand through its initial sale, and, if viable, quickly reprint from stereotype plates.⁵⁶⁷

565 Mosley, "Technologies of Print," 142–143; Gaskell, *New Introduction to Bibliography*, 116–117.

566 Dooley, *Author and Printer in Victorian England*, 55; Weedon, *Victorian Publishing*, 73; Rob Banham, "The Industrialization of the Book: 1800–1970," *A Companion to the History of the Book*, eds Simon Eliot and Jonathan Rose, 2nd. ed (Chichester, 2020), 453–469, 459.

567 Banham, "The Industrialization of the Book," 459.

Stereotyping had further advantages concerning textual quality control. Complex texts that needed accurate settings such as math tables and other scientific texts were constantly jeopardized by accidental alteration when they were reset for a new print run. Though compositors were generally educated men, they were usually not educated in all fields of science. Stereotyping effectively made texts immune to inadvertent changes. Once an accurate text was set and a plate cast, it would not run the risk of accidentally being compromised by sloppy resetting.⁵⁶⁸ As Keighren, Withers and Bell put it: “[T]he text was more ‘fixed’ than it had ever before been.”⁵⁶⁹

Finally, stereotype plates were made from sturdy material that lasted longer than standard type material. According to Allan Dooley, standard type in average wore out after about 25,000 impressions. Stereotype plates, on the other hand, endured approximately 60,000 impressions before a new plate had to be created.⁵⁷⁰ Plates also endured the increased pressure of steel presses better than type material.

Creating plates with plaster moulds, however, had drawbacks inherent to the material being used. The plaster tended to stick to the type material and made its removal quite an elaborate task. The cleaning of the type was also tedious work that most printers strongly opposed since they were paid by impression and not for extra work until the middle of the nineteenth century.⁵⁷¹ This certainly explains the active opposition towards this innovation. Taller lead spaces had to be used to minimize the clogging of the type material. These taller lead spaces made it impossible to print from these set pages because they were too close to the printing surface and would result in blackened areas throughout the page. In other words, the decision to create stereotype plates had to be made beforehand as it involved a different composition method. It did not suffice to create a mould only and wait for the actual demand of the text. The printing had to be made from the plates.

568 James Mosley, “The Technologies of Printing,” *The Cambridge History of the Book in Britain: Vol. V, 1695–1830*, eds Michael Felix Suarez and Michael L. Turner (Cambridge, 2009), 163–199, 198.

569 Innes M. Keighren, Charles W. J. Withers and Bill Bell, *Travels into Print: Exploration, Writing, and Publishing with John Murray, 1773–1859* (Chicago, 2015), 194–195, 187.

570 After 1900, stereotype plates were hardened with nickel and endured more than 100,000 impressions. Dooley, *Author and Printer in Victorian England*, 71.

571 Dooley, *Author and Printer in Victorian England*, 61.

Also, the plaster mould shrank discernibly while cooling off and the created plate was consequently smaller than the set type.⁵⁷² Creating the mould was a delicate task where many individual operations could go wrong. Large stereotype plates made from plaster moulds tended to flex and crack while being used for printing. Therefore, it was only possible to create rather small plates in the beginning.⁵⁷³ Finally, the production of stereotype plates from plaster moulds was expensive, and with two hours to create a single plate excluding the time to bake the mould, it was also relatively slow. If a mould turned out to be of inferior quality or even broken, the whole process needed to be redone. Also, due to the fragile nature of the mould, it could only be used once to create a relatively small plate, thus limiting its initial main advantage.⁵⁷⁴

The idea of printing from plates was a step forward in book production, but it was not fully convincing in its early execution in respect to desired economic and physical outcomes by using plaster moulds. Consequently, new possibilities were researched to enhance this method. The solution lay in an invention even older than plaster moulds: paper moulds. Creating stereotype plates from paper moulds was much cheaper, easier and faster. The mould created with laminated paper (the material was called “flog”) was very tough and thus easy to remove from the type. In contrast to plaster moulds it was possible to use standard size lead spaces. Consequently, the imposed pages for stereotyping could already be used for printing, meaning that an edition could be printed without having to cast the stereotype plates (as opposed to the plaster mould technology). Instead, paper moulds would be created, the type instantly distributed back to the cases and the moulds would be stored and only used for making stereotype plates if deemed viable.⁵⁷⁵

A seminal improvement for book production was the fact that paper moulds could be used to produce curved stereos. As a result, these plates could be mounted directly onto the cylinder and rotary presses, which would eventually replace the hand press in the late eighteenth/ early nineteenth century. Even

572 Dooley, *Author and Printer in Victorian England*, 62. Dooley estimates that the plate shrinks up to 3 per cent compared to the actual set page.

573 Dooley, *Author and Printer in Victorian England*, 60.

574 Banham, “The Industrialization of the Book,” 459.

575 Dooley, *Author and Printer in Victorian England*, 65–67. Dooley argues that this in itself had a small impact on the title-page of Victorian novels. Since it was realistic that a potential reprint was going to be produced months or even years later, several printers decided to omit the date of publication. However, printing new title-pages was not uncommon, especially because they could suggest a new edition.

though rotary machines were mainly used for newspapers and magazines (and became a necessity for them in the middle of the nineteenth century), books continued to be mainly printed on flat bed presses for a long time.⁵⁷⁶

However, paper moulds also had disadvantages: they shrank even more than plaster moulds due to the moist characteristic of the flong.⁵⁷⁷ The crucial disadvantage of paper moulds was the inferior quality of the plates created from them. They could not match the print quality of plaster-mould plates as they were less sharp and clear.⁵⁷⁸ Further, the plate metal needed to be softer than the type metal in order to create good plates. This resulted in a diminishing quality of prints off the plates. Therefore, minor faults in later copies of stereotype printed books were common during the nineteenth century: "Stereotype plates were liable to weaken, sink, and break at their edges, a problem caused and exacerbated by the mounting nails and catches. As a consequence, letters and words at the margins occasionally printed faintly or disappeared altogether."⁵⁷⁹

Examinations of early and late copies of the same impression from stereotype plates document developing scratches and other faults progressing, and only seldom was a faulty plate replaced so that the print might have returned to a fresh look. Some plates were even worn down to the brink of legibility. The refusal of printers to create new plates with the moulds can only be attributed to economic awareness.⁵⁸⁰

Even though the text in plates was essentially fixed, there were still possibilities to change it: single characters or words could be cut out and replaced with type material. Even complete lines or paragraphs could be replaced. Larger emendations, however, were typeset, a new, small mould and plate were created for such occasions. Such alterations, however, were almost always visible because the inserted type material was either higher or lower than the plate itself. Accordingly, the affected text passages were then printed darker or lighter

576 Dooley, *Author and Printer in Victorian England*, 66.

577 Gaskell, *New Introduction to Bibliography*, 204. In fact, Gaskell and Dooley are in disagreement on this. Dooley argues that paper moulds shrank far less. Dooley, *Author and Printer in Victorian England*, 66. Gaskell, however, states that the shrinkage of plaster moulds was negligible and was even used "for the deliberate reduction of type areas; but the additional shrinkage of the wet-flong mould was merely a nuisance, which was eventually overcome by the general use of dry-flong moulds from about 1910."

578 Dooley, *Author and Printer in Victorian England*, 65.

579 Dooley, *Author and Printer in Victorian England*, 73.

580 Dooley, *Author and Printer in Victorian England*, 75.

respectively.⁵⁸¹ Further, due to the shrinkage of the mould, new inserted type appears larger on the printed page and the whole type area of the page looks fidgety. Finally, corrections made plates even more prone to damage due to the added heating while soldering the corrected passages onto the original plate.

Even with these drawbacks, creating stereotype plates, when executed correctly, was a viable technology for publishers. But they did not solely create plates to print from them. They were oftentimes sold to or hired out to other printers and plates in stock were oftentimes listed in printers' catalogues. In other words, plates became accepted commodities of their own.⁵⁸² This oftentimes resulted in conflicts when authors changed their publishers.⁵⁸³

A related technology to produce plates was the usage of wax, graphite, a copper sulphate solution and electric current. Electrotyping, as it was labelled, was invented in 1839 and created very hard metal plates, which lasted approximately ten times longer than stereotype plates.⁵⁸⁴ Furthermore, electroplates produced much sharper and more detailed images. Subsequently, it was particularly useful for printing illustrations in contrast to the rather crude woodcut method. The quality of the prints was essentially as good as the original.⁵⁸⁵ However, this technique also held several disadvantages for printers. Apart from the very unhealthy working conditions for printers working with poisonous chemicals and fumes during the creation of electroplates, it was also unfeasible to create typographic pages via electrotyping. The very firm characteristic of the material also made correcting or amending plates extremely difficult. However, throughout the nineteenth century, some printers soldered small electrotypes of illustrations into typeset stereotype plates, because they offered a much better quality. The distinct difference in quality of clearness and sharpness of the two different plate technologies was thus easily perceptible on the printed page.⁵⁸⁶

Electrotyping, despite its superior quality of the print, was deemed to be too expensive and dangerous in the middle of the nineteenth century. Eventually, however, improvements of this technology ensured it becoming

581 Dooley, *Author and Printer in Victorian England*, 63–64.

582 Gaskell, *New Introduction to Bibliography*, 205; Lyons, *Books*, 106.

583 Charles Dickens and Robert Louis Stevenson are well-known examples.

584 Dooley, *Author and Printer in Victorian England*, 69.

585 Michael Twyman, "The Illustration Revolution," *The Cambridge History of the Book in Britain: Vol. VI, 1830–1914*, ed. David McKitterick (Cambridge, 2009), 117–143, 136; Bamber Gascoigne, *How to Identify Prints: A Complete Guide to Manual and Mechanical Processes from Woodcut to Ink Jet* (London, 1986), 5, 47, 72.

586 Dooley, *Author and Printer in Victorian England*, 69.

standard procedure in the late nineteenth and early twentieth century, at least for illustrations. Depending on the publisher and the estimated print run and consecutive editions, the whole text could be electrotyped.⁵⁸⁷

Paper

Rags make paper, paper makes money,
 Money makes banks, banks make loans,
 Loans make beggars, beggars make rags.⁵⁸⁸

The very first element of book production which had been affected by industrialization was in fact the carrier of typography: paper. The availability of paper in the fifteenth century had been a vital precondition for the establishment and success of the printing presses in Europe. It continued to be important for the development of printing procedures in the nineteenth century. In fact, paper proved to be the bottleneck for book production. Without advances in its manufacture, other improvements within the printing industry might not have happened.

As has been discussed, paper, next to type material, was the most expensive element in book production. The scarcity of paper was acknowledged even in the seventeenth century, when, according to a law enacted in 1666, it was forbidden to use wool suitable for papermaking for funerals.⁵⁸⁹ Obviously, a revolutionary increase of output in printed material needed an equally revolutionary increase in paper production. But just as the basic method of printing had not been altered for over 300 years, the procedure of making paper as well as the sourcing and composition of its raw material had not progressed far. Hand-made paper

587 Weedon, *Victorian Publishing*, 74; Howsam, "History of the Book in Britain, 1801–1914," 302. Gaskell, however, mentions the Harper publishing house in New York to be a remarkable exception, which almost exclusively printed their whole output on electroplates even in the 1850s. Gaskell, *New Introduction to Bibliography*, 206. The Harper publishing house was renowned for its excellence in technology. A contemporary work, though primarily intended for children, confirms this: Jacob Abbot, *The Harper Establishment: How the Story Books Are Made* (New York, 1855), 67: "In the Harper Establishment almost every thing at present is electrotyped." Further information can be found in Joseph Henry Harper, *The House of Harper: A Century of Publishing in Franklin Square* (New York, 1912).

588 Unknown author, quoted in Richard L. Hills, *Papermaking in Britain, 1488–1988: A Short History* (London, 1988), 45.

589 Scott D. Noam Cook, "Technological Revolutions and the Gutenberg Myth," *Internet Dreams: Archetypes, Myths, and Metaphors*, ed. Mark Stefik, 3rd ed. (Cambridge, MA, 2001), 67–82, 74–75.

could not keep up with the potential increase of print output. Consequently, more efficient ways to produce paper were vital to facilitate a sufficient supply.

Until the end of the seventeenth century, Britain was dependent on paper imports, mainly from France. It was during the eighteenth century that Britain finally developed enough skill and production know-how to become independent from imports.⁵⁹⁰ Nevertheless, paper production remained a slow process. Several inventors approached the idea to mechanize paper production around 1800. Of these, it was the invention of the French engineer Nicholas-Louis Robert which provided the necessary impetus and eventually prevailed. After having patented his machine in France in 1799, Robert went to England where he found the necessary preconditions, capital and technical skill, to further develop his idea. His machine was financed by the British stationers Sealy and Henry Fourdrinier and eventually patented in England in 1801.⁵⁹¹ The basic principle of the Fourdrinier machine was that most steps of paper production would be mechanized. Instead of manually sieving individual sheets of paper from a paper-pulp filled vat, an endless moving wire would retain the fibres from the water in the vat and at the same time drain the superfluous water so that the paper could dry. Apart from being much easier to produce paper this way, it also had one further advantage: the paper produced with the machine was only limited in proportion to the size of the wire. Manually sieved pages were restricted by the size of the mould the papermaker could hold steadily to create a sheet. The machine, however, could, in theory, produce paper in infinite length, only restricted by the width of the vat and the moving wire.⁵⁹² Six years after the patent had been granted in England, the machine had become viable and could produce as much paper in one day as a team for hand production in a whole week. By the 1830s, newspapers, as well as books, were chiefly printed on machine-made paper signifying a complete acceptance of the innovative production method.⁵⁹³

590 John Bidwell, "The Industrialization of the Paper Trade," *The Cambridge History of the Book in Britain: Vol. V, 1695–1830*, eds Michael Felix Suarez and Michael L. Turner (Cambridge, 2009), 200–217, 200.

591 Donald Cuthbert Coleman, *The British Paper Industry, 1495–1860: A Study in Industrial Growth* (Westport, CT, 1975), 180–181.

592 For an elaborate description of the mechanism and development of the paper machine as well as competing inventions during the same time, see, for instance, Coleman, *British Paper Industry*, 256–278; Hills, *Papermaking in Britain*, 92–104; Dard Hunter, *Papermaking: The History and Technique of an Ancient Craft* (New York, 1943), 257–278.

593 Banham, "Industrialization of the Book," 454.

The introduction of the Fourdrinier machine thus immensely sped up the production of paper and reduced the cost of the product. In the early nineteenth century, around two-thirds of the cost of book production derived from the cost of paper.⁵⁹⁴ The introduction of the Fourdrinier machine initially reduced the rate down to one quarter in 1851.⁵⁹⁵ A hindering element in the acceptance context for the new production method were paper duties. In 1861, the abolition of these ‘taxes on knowledge’ further aided the printing business.⁵⁹⁶ In addition to such economic advantages, the greater production speed for paper also helped to reduce stock, as now fresh supplies could rapidly be ordered from the paper mill – much in contrast to the times when hand-made paper was scarce and much slower to produce. Reduced stock meant less financial capital tied up in the printer’s business and – as a very practical advantage – the reduced risk for his inventory to catch fire, which was not an uncommon danger of printing shops.⁵⁹⁷ The newly produced paper could also be bigger in size, which enabled printers to use bigger presses to print on larger sheets, which sped up the printing process accordingly.⁵⁹⁸ Finally, machine-made paper tended to be of higher quality concerning durability and resistance to damage because the pulp was spread more evenly on the sieve.

However, as with most technological advancements in book production, the application of the new possibilities to produce paper took its time. As McKitterick points out, even though the technology was first introduced around 1800, the paper that was used before the 1830s was mainly hand-made.⁵⁹⁹

Sourcing of Material

The other big problem in paper production, namely the sourcing of the material to produce paper, had not been solved by the time the Fourdrinier machine was introduced. The chief raw material used for creating paper was rags. Consequently, the publishing industry was depending on the textile industry. This dependence became obvious when external factors like the blockade of

594 Lee Erickson, *The Economy of Literary Form: English Literature and the Industrialization of Publishing, 1800–1850* (London, 1996), 7.

595 Weedon, *Victorian Publishing*, 66.

596 H. Dagnall, “The Taxes on Knowledge: Excise Duty on Paper,” *The Library*, 6th ser., 20 (1998), 347–363.

597 Weedon, *Victorian Publishing*, 64.

598 Weedon, “Economics of Print,” 161.

599 McKitterick, “Introduction,” 3.

ports diminished the import of textiles, or financial crises made people cling to their old clothes. Situations like these restricted the availability of rags. To illustrate the importance of ample supply of raw material, the late eighteenth century, which witnessed a publishing boom, should be mentioned. Because people were able to afford larger robes, the result was more raw material for paper mills and essentially lower paper costs.⁶⁰⁰ Paper was a commodity in its own right and was not exclusively used for text production, hygiene and packaging being two other important usages in the nineteenth century. Other developments during the industrialization created the need for even more paper. New transport methods for example required goods to be safely wrapped in paper, and travellers began writing postcards.⁶⁰¹ An instant rise in paper costs was the result.⁶⁰² Increased paper demand for book and newspaper production eventually played its part in creating a severe paper shortage. Rags as the main raw material for paper severely limited the potential of paper production in the first half of the nineteenth century.

The incentive to find a new material for paper, however, was not provided by the book industry, but by the newspaper industry, which depended even more on paper. In the 1850s, the newspaper *Times* offered a 1,000-pound reward “for the invention or discovery of a cheap substitute for cotton and linen rags.”⁶⁰³ The solution was eventually found in esparto grass, which was introduced by Thomas Routledge in 1857⁶⁰⁴ after a few dissatisfying problems that were eventually overcome.⁶⁰⁵

Esparto grass, also known as alfalfa, was mainly imported from Spain and North Africa but its use in the production of paper was limited to British papermakers because of established British trade routes. Alfalfa was convenient since the production methods were similar to rag paper after unwanted elements had been removed and the grass had been boiled, washed and bleached.⁶⁰⁶ It was

600 Erickson, *The Economy of Literary Form*, 6–7.

601 Stephen Colclough and David Vincent, “Reading,” *The Cambridge History of the Book in Britain: Vol. VI, 1830–1914*, ed. David McKitterick (Cambridge, 2009), 281–323, 291. For a classification of paper, see also Dagnall, “The Taxes on Knowledge,” 355.

602 Erickson, *Economy of the Literary Form*, 170–171.

603 Banham, “Industrialization of the Book,” 454.

604 Robert Henderson Clapperton, *The Paper-Making Machine: Its Invention, Evolution and Development* (Oxford, 1967), 191. Clapperton refers to the introduction of esparto grass as “epoch-making for the paper-trade.”

605 Coleman, *The British Paper Industry 1495–1860*, 342.

606 Marjorie Plant, *The English Book Trade: An Economic History of the Making and Sale of Books*, 3rd ed. (London, 1974), 336.

subsequently used as the main raw material for paper until the First World War. The quick acceptance of esparto grass becomes evident when looking at the phenomenal increase of grass import alone. In 1861, the early days of esparto grass, only 16 tons had been imported to Great Britain. Nine years later, the figure rose to 104,870 tons and reached its climax in 1890 with 217,028 tons. The quick acceptance of the new material is obvious and the preference of esparto grass over rags can be seen in comparing the import figures. Marjorie Plant picked the year 1884, which shows that esparto grass was imported fivefold compared to rags, with only 36,233 tons of rags compared to an impressive 184,005 tons of grass.⁶⁰⁷ In this case, the instant acceptance of an innovation can be explained with the urgent economic need to satisfy the demand.

Other materials to produce paper were tested as well. The use of wood pulp became viable in the late nineteenth and early twentieth century, as did straw celluloses and the use of sawdust. These alternatives furthered the decline of paper costs. Not only did these substitute materials ensure a much cheaper production, it also offered an unlimited supply of raw material through multiple sourcing opportunities.

The quality of paper made from new materials, however, suffered in contrast to paper made from rags. It became weaker and, especially due to the use of chemicals in paper made from wood, the durability of paper produced from the late nineteenth century onwards diminished.⁶⁰⁸ The solution of the problem of quantity resulted in inferior quality. The book industry was aware of the diverging quality aspects of the different papers and paper made from various raw materials coexisted throughout the nineteenth century. A committee of the Society of Arts assessed the durability of the different papers and concluded that the best quality was still offered by rag paper, followed by wood, esparto and straw paper. The lowest quality, and hence best excluded from book production was paper made from straw.⁶⁰⁹ In essence, publishers and printers had a variety of paper to choose from, which differed in price and quality. These developments led to a further reduction of the percentage of paper making up the cost of book production. Whereas by the time mechanized papermaking was established in the mid-1800s and paper accounted for roughly one quarter of the cost of book production, this ratio was halved to merely 1/8 in 1891 by the introduction of new raw materials.⁶¹⁰

607 Plant, *The English Book Trade*, 336.

608 Banham, "Industrialization of the Book," 454.

609 Plant, *The English Book Trade*, 338.

610 Weedon, *Victorian Publishing*, 66. It further dropped to 1/10 in 1930.

New Printing Presses

As with most technical parts of book production, the press itself took a long time until it saw considerable improvements. The first significant enhancement is embodied in Charles Stanhope's invention of his iron hand press around 1800. It is interesting to note that Stanhope's invention was rather altruistic:

At no time did Stanhope expect to derive a profit from these inventions, and over a long period they proved costly to him. That cost, however, may serve as evidence of his genuine commitment to scientific and technical advance, and of his restless and widely dispersed energy.⁶¹¹

Similar iron presses like the Columbian or Albion presses followed shortly after.⁶¹² Despite the fact that merely the material of the press was different, and the principles of printing had not changed, iron presses offered some advantages in comparison to the 350-year-old wooden printing press. They needed far less physical effort to handle, yet they applied more pressure, more evenly, with a larger platen. As a consequence, printers not only saved strength while printing, they also could print from larger formes with only one pull whereas wooden presses on average needed two.⁶¹³ While the common press had a type-area of about 49x39 cm in average, early Stanhope presses could print a type-area of 58x45 cm and later iron presses in the 1820s even managed 98x58 cm.⁶¹⁴ However, in comparison to other advancements in technology, the iron printing press did not provide a significant improvement in speed. Contemporary publisher Charles Knight⁶¹⁵ praised the new and unprecedented quality of the prints, but dampened the enthusiasm: "This invention [the Stanhope Press] undoubtedly enabled printing of a better quality to be produced; but it added very slightly to the speed with which impressions could be thrown off."⁶¹⁶ Jobbing printers,

611 G. M. Ditchfield, "Stanhope, Charles, third Earl Stanhope (1753–1816)," *Oxford Dictionary of National Biography* (Oxford, 2008) <<http://www.oxforddnb.com/view/article/26241>> (accessed: 11.12.2019).

612 Banham, "Industrialization of the Book," 454–455.

613 Colclough, "Introduction," xvii.

614 James Moran, "The Columbian Press," *Journal for the Printing Historical Society*, 5 (1969), 1–23, 12. Quoted in Gaskell, *New Introduction to Bibliography*, 199.

615 Rosemary Mitchell, "Knight, Charles (1791–1873)," *Oxford Dictionary of National Biography* (Oxford, 2008) <<http://www.oxforddnb.com/view/article/15716>> (accessed: 11.12.2019).

616 Charles Knight, "The Commercial History of a Penny Magazine: Printing Presses and Machinery-Bookbinding," *Monthly Supplement of the Penny Magazine*, 112 (1833), 505–512, 507.

however, were pleased with the new press because they could print large posters with less effort.⁶¹⁷

A stronger effect on printing output was the introduction of the printing machine, even though it merely improved existing concepts and replaced human power with steam power. They either imitated the press with a flat plate or relied on the turning of cylinders.⁶¹⁸ Even though printing machines were initially used for newspapers only, the new technology along with its unprecedented possibilities was perceived as a watershed.⁶¹⁹ Contemporaries saw the first use of a printing machine, namely the Koenig machine printing the *Times* in 1814 as a noteworthy change.⁶²⁰ The acquisition of a Koenig's press was very expensive and they were tricky to use, costly to run and increasingly complicated compared to the rather simple hand presses. Even though the Koenig's press offered tremendous efficiency and speed, book printers initially refrained from using them. Average book print runs in the early nineteenth century, in contrast to popular newspapers, were not high enough to justify the huge start-up costs along with its further costs and complicated handling. Further reasons made printers hesitate:

For most book printers, the cost of machinery, the need to overcome employees' resistance and to retain them, the physical confines of the printing house, and the slow return on outlay, meant that investment in new equipment was always cautious, even slow. Partly because of the extra care required by them in make-ready, the new machine presses tended also to be more suited for long runs. It was partly for this reason that expensive new machinery tended to be introduced first in the newspaper trade.⁶²¹

The output of platen machines like the Wharfedale machine reached 600 to 1,000 impressions per hour, a vast improvement compared to the 250 to 400 impressions per hour of the hand press. Further, machines were able to press larger platens, which effectively increased the number of pages per hour.⁶²²

The output of printing machines, however, was inhibited by taxes. Paper was taxed by sheet. Therefore, it was indispensable to feed paper into the machines sheet by sheet. The abolishment of the paper stamp act in 1860 eventually led to a more efficient paper feeding procedure as paper could now be

617 Banham, "Industrialization of the Book," 455.

618 Dooley, *Author and Printer in Victorian England*, 79.

619 Howsam, "History of the Book in Britain, 1801–1914," 301.

620 Knight, "The Commercial History of a Penny Magazine," 507.

621 McKitterick, "Introduction," 2.

622 Dooley, *Author and Printer in Victorian England*, 80.

fed on a continuous roll, a much more efficient procedure made possible by the Fourdrinier machine.⁶²³

Eventually, printing machines were enhanced step-by-step to further satisfy the growing needs for newspaper production. By the 1850s, a printing machine, based on Koenig's invention, was specifically built by Cowper and Applegath for book printing.⁶²⁴ The application of cylinder machines, however, proved to be problematic because of the enormous amount of pressure they applied. Printers called cylinder machines "type smashers" and rejected the innovation. Even when this problem was solved in the 1880s, many printers still needed to be convinced that the new technology was no longer a danger to their type material.⁶²⁵

Despite individual distrust in innovations, by the end of the nineteenth century, most printers worked with machines, even though many still kept iron hand presses. The advantages of machine presses eventually proved too important to neglect. As Allan Dooley summarizes: "Speed was what British printers and publishers wanted from the machines, and speed they got."⁶²⁶ Speed, or rather speedy production, almost seemed to become a value of its own.

3.1.3. Reception

For publishers, readers are potential customers, either directly or indirectly via libraries. As a target audience, their importance and an understanding of a general reading culture must be acknowledged. Reading (or reception) in book history models like Darnton's is unquestionably the most complex and difficult stage to analyse. The problems of adequately answering the most important questions about reception lies in the nature of reading itself. Reading is an abstract and internal process that does not necessarily leave behind traces for the scholar to analyse. The most common traces and sources generally used in the field of reading research have the drawback that they can be easily misinterpreted. Autobiographical writings like diaries, letters or journal entries, for example, are prone to self-fashioning and only seldom mention reading of ephemera. Lists of

623 Maureen Green, "Paper," *A Companion to the History of the Book*, eds Simon Eliot and Jonathan Rose, 2nd ed. (Chichester, 2020), 65–80, 76–77.

624 Banham, "Industrialization of the Book," 456–457.

625 Dooley, *Author and Printer in Victorian England*, 81–82.

626 Dooley, *Author and Printer in Victorian England*, 83. Another increase in speed was brought by rotary presses. However, they were not used for book production in the nineteenth century and are therefore not mentioned in this chapter. Dooley, *Author and Printer in Victorian England*, 81.

booksellers do not reveal books that have actually been read but only those that have been sold. Further, attempts to gauge literacy levels are executed with relatively uncertain methods.⁶²⁷

In his essay “First Steps Toward a History of Reading” (1986), Robert Darnton suggests the primary questions “who,” “what,” “where” and “when” to find the more difficult answers to the “whys” and “hows.”⁶²⁸ In the scope of this study, it is not necessary to answer all these questions for this chapter’s time frame of roughly 1780 to 1890. In fact, a clean periodization of reading development might even run the risk of misinterpretation - not least because “human beings do not observe tidy periodization but stubbornly live and read beyond our literary and historical paradigms.”⁶²⁹ However, general developments can be spotted since they are oftentimes consequences of the age itself: “Both the reading and the print cultures of the Romantic period in England were greatly affected by the political, economic, and industrial transformations that occurred in the country at that time.”⁶³⁰

One general observation during the eighteenth as well as the nineteenth century is the steady growth of literacy among the British public, which is distinctive of the period.⁶³¹ According to John Feather, the move towards near-universal literacy began in the early eighteenth-century and was completed around 1900.⁶³²

627 The most common way to estimate literacy rates in previous centuries is counting signatures in marriage certificates. Whereas most book historians agree that this is a rather crude way of analysis for several reasons, there is general consent that with the lack of better options, these sources should not be neglected either. Simon Eliot, “The Business of Victorian Publishing,” *The Cambridge Companion to the Victorian Novel*, ed. Deidre David, (Cambridge 2001), 37–60, 42; Weedon, *Victorian Publishing*, 52; David Franklin Mitch, *The Rise of Popular Literacy in Victorian England: The Influence of Private Choice and Public Policy* (Philadelphia, 1992), xvii; Colclough and Vincent, “Reading,” 310.

628 Robert Darnton, “First Steps Toward a History of Reading,” *Australian Journal of French Studies*, 23 (1986), 5–30, 5–7.

629 Hackel, *Reading Material in Early Modern England*, 12; Colclough and Vincent, “Reading,” 282.

630 Diana Chlebek, “Romanticism and the Nineteenth Century,” *Cultural History of Reading*, ed. Gabrielle Watling (Westport, CT, 2009), 197–226, 202.

631 In fact, this phenomenon is to a large extent applicable to the whole of Europe. Mollier and Cachin divide the continent into the “literate north-west and less literate south-east.” Incidentally, this roughly reflects the development of industrialization. Mollier and Cachin, “A Continent of Texts,” 485.

632 Feather, *A History of British Publishing*, 108.

The fastest increase can be detected in the third quarter of the nineteenth century.⁶³³ Whereas there has been a decisive difference in literacy gender-wise at the beginning of the nineteenth century with 60 per cent of the male public being literate compared to only 45 per cent of the female public, the results were more balanced at the end of the century with 94 and 93 per cent, respectively.⁶³⁴ The rising rates are especially noteworthy in themselves, but considering the enormously growing population these figures are all the more impressive. Reasons for the steep rise of literacy are manifold and distinctive for the period. The eighteenth century witnessed a rise of literacy as well, and the impressive 50 per cent around the 1750s had, rather surprisingly, not been achieved with the help of public efforts to enhance education. David Mitch concludes an “initial presence of some combination of wide-spread popular demand and local philanthropic support for mass education.”⁶³⁵ Consequently, the next generations would esteem literacy more highly so that, ultimately, this skill would become a common desire.⁶³⁶ Literature like the hugely popular *Self-Help: With Illustrations of Character and Conduct* (1859)⁶³⁷ by Samuel Smiles shows that the working classes were eager to educate themselves and ultimately expected more from life.

The most obvious difference to the fifteenth and sixteenth centuries is the widening of readership. In addition to general literacy levels, different target groups for reading were also established – namely the gradual development of the working classes as a potential reading group,⁶³⁸ which had become a target group

633 Helen Small, “A Pulse of 124: Charles Dickens and a Pathology of the Mid-Victorian Reading Public,” *The Practice and Representation of Reading in England*, ed. James Raven (Cambridge, 1996), 263–290, 273.

634 Eliot, “From Few and Expensive to Many and Cheap,” 473.

635 Mitch, *The Rise of Popular Literacy in Victorian England*, xvi.

636 Mitch, *The Rise of Popular Literacy in Victorian England*, 208.

637 See, for example, Samuel Smiles, *Self-Help: With Illustrations of Character and Conduct* (London, 1859). The text sold 20,000 copies within the first year and almost 300,000 copies until 1905. H. C. G. Matthew, “Smiles, Samuel (1812–1904),” *Oxford Dictionary of National Biography* (Oxford, 2009) <<http://www.oxforddnb.com/view/article/36125>> (accessed: 11.12.2019); Kenneth Fielden, “Samuel Smiles and Self-Help,” *Victorian Studies*, 12.2 (1968), 155–176; Asa Briggs, “Samuel Smiles: The Gospel of Self-Help,” *Victorian Values: Personalities and Perspectives in Nineteenth-Century Society*, ed. Gordon Marsden, 2nd ed. (London, 1998), 101–114 and David McClay, “Samuel Smiles and ‘Self-Help’: A Nineteenth-Century Bestseller,” *Journal of the Edinburgh Bibliographical Society*, 3 (2008), 63–69.

638 Martyn Lyons, “New Readers in the Nineteenth Century: Women, Children, Workers,” *A History of Reading in the West*, eds Guglielmo Cavallo and Roger Chartier (Amherst, 2003), 313–344.

in its own right during the 1840s.⁶³⁹ Reasons for the working classes evolving towards a reading class are the increasing ability to read as well as a slow development towards more leisure time. Further, access to reading material improved significantly during the nineteenth century⁶⁴⁰ – albeit mostly to second-hand books or cheap reprints of texts for which the copyright had expired. This had repercussions on the book market as it now even more reflected the social-class hierarchy of readers: on the one side the restricted production of prestige objects for privileged individuals and on the other side a large-scale production for the “unashamed creation of economic capital” for the masses.⁶⁴¹ At least in the first half of the nineteenth century, the increase in real wages had not changed the fact that workers were not able to purchase novels by new authors, making them an exclusive commodity for wealthy people.⁶⁴²

A distinct development can be detected in which more people were looking for reading material, either buying it or borrowing it from a library. In fact, the period of the late eighteenth and early nineteenth century

saw the mounting importance of a distinction between renting and reading and owning and rereading books, with the emergence of an oppositional culture of rereading by the few as the means of transforming literary value into selective salvation.⁶⁴³

As in other centuries, owning books acted as a social indicator during the industrial age, as well, signifying both cultural and economic capital. In higher circles, book borrowing might even be frowned upon, depending on the reading material.

A much-debated occurrence in the late eighteenth century is the so-called ‘Reading Revolution.’ Initially formulated by Rolf Engelsing in 1970, the concept claims a revolutionary shift of reading habits in the middle classes.⁶⁴⁴ Instead of reading and re-reading a small amount of the same texts, primarily consisting of devotional literature, readers began to develop a huge interest in a variety

639 Colclough and Vincent, “Reading,” 302.

640 Colclough, “Introduction,” xxiii.

641 Keighren, Withers and Bell, *Travels into Print*, 194–195.

642 James Raven, “The Book as a Commodity,” *The Cambridge History of the Book in Britain: Vol. V, 1695–1830*, eds Michael Felix Suarez and Michael L. Turner (Cambridge, 2009), 85–117, 100.

643 Kathryn Sutherland, “British Literature, 1774–1830,” *The Cambridge History of the Book in Britain: Vol. V, 1695–1830*, eds Michael Felix Suarez and Michael L. Turner (Cambridge, 2009), 667–683, 683.

644 Rolf Engelsing, “Die Perioden der Lesergeschichte in der Neuzeit,” *Archiv für Geschichte des Buchwesens*, 10 (1970), 945–1002.

of texts, mainly fictional literature. Engelsing's 'Reading Revolution' was heavily debated and is now commonly regarded as an exaggeration of facts.⁶⁴⁵ A shift from intensive to extensive reading, as Engelsing has formulated, might well have happened, but the accounts of a 'reading mania' or 'reading fever' must be regarded in a careful way. It can be attributed to the concern of possible outcomes similar to the French Revolution. Therefore, contemporary sources commenting on these developments should be interpreted cautiously and not taken at face value. Engelsing's theory does, however, foster the argument that readers became interested in more genres and that reading itself became more widespread. This can be seen in the drastic surge of printed material. According to James Raven, who quotes Peddie's *English Catalogue of Books*, 25,000 book titles were published from 1800–1835 and 64,000 from 1835–1862. The numbers even quadrupled from 1846 to 1916 with prices eventually halved.⁶⁴⁶ Statistical research indicates that not only readership grew but also the diversity of texts. Manifold topics and genres were gaining momentum beginning in the early nineteenth century. When from the fifteenth to the eighteenth century religious and edifying literature was clearly dominating the publishing industry, a much greater diversity of reading material was available during the nineteenth century. Despite the strong impact of fiction on readership during the late eighteenth century, this publishing category took until the end of the nineteenth century to become more important for the book trade than religious texts. Religious titles were dominating publications with 20 per cent in the first half of the nineteenth century while fiction and juvenile literature made up only 16 per cent of the total output.⁶⁴⁷ Genres like travel or history, as well as works on geography, were lagging behind religious texts.⁶⁴⁸ Scientific studies on mathematics, as well as arts and illustrated works were equally (moderately) successful with just nine per

645 Wittmann, "Was there a Reading Revolution?"; Joost Kloek, "Reconsidering the Reading Revolution: The Thesis of the 'Reading Revolution' and a Dutch Bookseller's Clientele around 1800," *Poetics*, 26 (1999), 289–307.

646 Raven, *Business of Books*, 324.

647 Eliot used the stock of the "Bibliotheca Londoniensis" as a fixed point to compare further developments. The categories in his statistics are somewhat ambiguous and further include "Poetry and Drama," "Geography, Travel, History and Biography," "Education," "Medical," "Politics, Social Science, Economics, Military and Naval." Eliot, *Some Patterns and Trends*, 44–46.

648 Howsam, "History of the Book in Britain, 1801 -1914," 306–308.

cent. Medicine and law texts were even less significant with six per cent and four per cent respectively.⁶⁴⁹ In contrast, fiction climbed to 26 per cent in the 1880s, while religion stagnated at merely 15 per cent according to the material of the *Publisher's Circular*.⁶⁵⁰ What is even more interesting is that the vague category of "miscellaneous" had risen to 19 per cent. This yet again emphasizes the rise of new material since even more texts which were unable to be categorized were being produced.⁶⁵¹ A closer look at the development of the publishing industry, however, reveals that the increase in publications is not a steady one. Production of titles surged in the 1840s and early 1850s with surprising, significant drops from the late 1850s to the early 1870s. Eliot further puts his findings into perspective with a significant drop in book prices from the 1850s on. "Literature" remained very expensive in comparison to other subjects and only saw a decline in prices from the 1870s onwards.⁶⁵² These figures have to be used carefully though since they are based on counting titles, not considering print runs or text length. Leslie Howsam, who also uses Eliot's statistics, still suggests that these figures might at least be used as general markers.⁶⁵³ Indeed, at least Eliot's statistical research shows that more texts, and not only more copies, were printed. The circles of readers grew and preferences for reading material changed.

Another conclusion of Eliot, though not properly investigated by him due to the restricted possibilities of working with the sources, implies that periodical publishing became "of the first importance both culturally and economically"⁶⁵⁴ in the latter half of the nineteenth century. Serialized reading matter was introduced in Britain in the seventeenth century, gained importance during the eighteenth century and finally became increasingly popular in the 1830s. Eliot states that the Victorian age is not characterized by the book but by the newspaper and magazine trade if one considers that even in 1907, printed books merely contributed 5.3 per cent to the total net value of the printing industry,

649 Eliot, *Some Patterns and Trends*, 44–46.

650 Eliot, *Some Patterns and Trends*, 46–58. This development progressed further: the decade 1910–1919 offers 24 per cent of fiction publishing compared with 8 per cent of religious publishing.

651 Eliot, *Some Patterns and Trends*, 46–53.

652 Eliot, *Some Patterns and Trends*, 106–108.

653 Howsam, "History of the Book in Britain, 1801–1914," 307. She also points out the rather useless and arbitrary combination of genres in statistics like "politics, social science, economics, and military and naval," which altogether represents four per cent of the printed material in the said time frame.

654 Eliot, *Patterns and Trends*, 4–5.

and magazines and newspapers an impressive 28.2 per cent.⁶⁵⁵ Serials reached a larger and socially more heterogeneous target group. Magazines like *Bentley's Miscellany* indicated its broad readership by "its format, appearance and content."⁶⁵⁶ Consequently, the abundance of serials or part-issues made reading material cheaper and thus easier to access. This situation was perceived critically by contemporaries. British journalist and author Innes Shand commented on that development that "everybody has become something of a reader," which can clearly be read as derogatory.⁶⁵⁷

The steep growth of readership and the increasingly diverse interest in reading material forms one important part for the enormous changes in the publishing industry during the nineteenth century. However, new novels were luxury items and commercial lending libraries became the main customers of publishers. Since both circulating libraries and publishers profited from this system, novels continued to be a luxury item for decades. Further on, several publishers even became dependent on the commercial libraries. The aspect of distribution affected the book trade in England in the nineteenth century in an astounding way and consequently affected the context of acceptance.

3.1.4. Distribution

Even though research in book distribution has been of particular and growing interest for the last years only,⁶⁵⁸ already in 1982, Robert Darnton has proposed that "[t]he wagon, the canal barge, the merchant vessel, the post office, and the railroad may have influenced the history of literature more than one would suspect."⁶⁵⁹ In other words, influence of aspects of transport and distribution in general must not be underestimated for the publishing industry. As Adams and Barker have stressed, the element of distribution is the most crucial moment in the life cycle of a book. It marks the moment in which the book enters its dynamic phase:

655 Eliot, "The Business of Victorian Publishing," 48–49.

656 Bill Bell, "Fiction in the Marketplace: Towards a Study of the Victorian Serial," *Serials and Their Readers, 1620–1914: Papers Originally Read at the 14th Annual Conference on Book Trade History at the Birkbeck College, Centre for Extra-Mural Studies, University of London, November 1992*, ed. Robin Myers (Winchester, 1993), 125–144, 135.

657 Innes Shand, quoted in Brake, "'The 'Trepidation of the Spheres,'" 94.

658 Colclough, "Introduction," xix.

659 Darnton, "What is the History of Books?" 77.

[W]ithout it the book cannot perform its essential function, to communicate. On the most fundamental level it consists of four elements: the initial impetus, the consequent moving of books, the destination, both intentional and unintentional, and the momentum that carried the process along, which may last a long or a short time and move fast or slow.⁶⁶⁰

Developments in this field consequently have a vital effect on the book trade.

Railways

Simon Eliot distinguished between a distribution revolution and a production revolution during the industrial age. The expansion of England's infrastructure gradually adopted the distribution network which in turn proved to be beneficial for the publishing industry in several ways. Roads in England at the end of the eighteenth century tended to be of inferior quality.⁶⁶¹ Their gradual improvement alone showed a palpable advancement for the publishing industry: books reached more people with faster speed in a better condition at lower prices.⁶⁶² Paper is a heavy commodity. However, in the form of books it is easy to be stored and, with the help of powerful transport methods, easy to distribute. As a consequence, the introduction and development of the railway system exponentially increased the ability to distribute books and newspapers, but also other goods related to the publishing business like printing presses, stereotype plates as well as raw materials.⁶⁶³ During the Victorian age, books were distributed by vans within London, by train to the provinces and in tin trunks overseas.⁶⁶⁴ Throughout the nineteenth century, the railway system improved in speed and density. In 1820, travelling from London to Liverpool by stagecoach took approximately 30 hours. In 1845, trains took around six to eight hours and by 1910 Liverpool was reached in only four hours.⁶⁶⁵ Britain's railway system was ahead of its time.⁶⁶⁶ Trains

660 Adams and Barker, "New Model for the Study of the Book," 22.

661 Raven, *Business of Books*, 332.

662 Michael Felix Suarez, "Introduction," *The Cambridge History of the Book in Britain: Vol. V, 1695–1830*, eds Suarez and Michael L. Turner (Cambridge, 2009), 14–15. Suarez also notes that the improvement of canals hardly affected the English book trade.

663 Eliot, "From Few and Expensive to Many and Cheap," 473.

664 Kate Flint, "The Victorian Novel and its Readers," *The Cambridge Companion to the Victorian Novel*, ed. Deirdre David (Cambridge, 2001), 17–36, 21. The British colonies were a growing market for the publishing industry as well.

665 Michael Maurer, *Kleine Geschichte Englands* (Stuttgart, 2007), 366–372.

666 Colclough, "Introduction," xiii. Especially compared with the railway of France it becomes apparent how advanced England became during the industrialization compared to other European countries.

became faster, commuting progressed and more travellers discovered reading as a pastime on the train, not least because train travels were annoyingly loud and the possibilities for conversations were limited.⁶⁶⁷ Shafquat Towheed also argues that women were advised to read during train rides to avoid being inappropriately accosted by men.⁶⁶⁸ With the growing importance of reading material on trains, further developments like railway book editions, the establishment of railway circulating libraries or bookshops like W. H. Smith had a profound effect: “It is not until the railways that the British mass-produced book, newspaper and print market so readily and effectively permeated all social ranks.”⁶⁶⁹

Finally, with the booming development of England’s railway system, the importance of Britain’s provinces grew. Despite some contemporaries’ criticism, the availability of recent novels was guaranteed in the provinces as well.⁶⁷⁰ Consequently, printing larger editions slowly became less risky because the number of potential customers rose.

Libraries

Still, nineteenth century booksellers in England ran a risky business and few of them were able to sell books only. Other goods like stationery, newspapers and fancy goods offered the bookseller a steady income.⁶⁷¹ The selection of books in bookshops was limited. The range of customers was even more restricted by the still very high price of most books. The price of a three-volume novel, the established standard format for new novels, was approximately the weekly income of an average worker’s salary and therefore, in fact, unaffordable.⁶⁷² The place where most readers encountered their books until the late nineteenth century was libraries. For several decades, they were the most powerful customers of publishers and shaped the British publishing industry in a profound way.

The main function of libraries is the collection and preservation of texts and making them available for the individual. Since the use of libraries is not

667 Alan J. Lee, *The Origins of the Popular Press in England, 1855–1914* (London, 1976), 38.

668 Shafquat Towheed, “Locating the Reader, or What do We do With the Man in the Hat? Methodological Perspectives and Evidence from the United Kingdom Reading Experience Database, 1450–1945 (UK RED),” *Primerjalna Knjizevnost*, 34.2 (2011), 205–218, 216–217.

669 Raven, *Business of Books*, 370.

670 John Feather, “The Merchants of Culture: Bookselling in Early Industrial England,” *Studies on Voltaire and the Eighteenth Century*, 217 (1983), 11–21, 11–13.

671 McKitterick, “Introduction,” 58.

672 Eliot, “From Few and Expensive to Many and Cheap,” 471–472.

obligatory, the services and content they provided have over time been adapted to the public that used them.⁶⁷³ There were further goals that libraries were set to achieve. An example was the Public Libraries Act in 1850, which funded the establishment of public libraries. Supporters of them envisioned to steer the literary taste for the lower classes.⁶⁷⁴ Public lending libraries were set up under the optimistic principle that reading was the best form of self-education and that once readers were exposed to good reading material, they would disapprove of inferior texts. The success of these plans is heavily debated. While Simon Eliot concludes that “despite these attempts, readers refused to fit into the educational pattern planned out for them,”⁶⁷⁵ Martyn Lyons is more favourable and states that

liberal philanthropy of this kind seemed to be working in Britain and the United States. Continental observers were impressed by the apparent quiescence of Lancashire operatives during the cotton famine; liberal philanthropists believed there was a lesson to be learned here. Perhaps popular libraries could contribute towards social stability.⁶⁷⁶

The opening of libraries to everybody was not generally seen with benevolence, as James Raven concludes:

For many commentators the most appropriate representation of the library was that of a sanctuary. In a library, even at its most domestic, the book was housed within a symbolic and designated environment. Whether in silent study or in shared performance, reading locations were to be selected with discrimination. For, as both radicals and conservatives emphasized, knowledge was power. Print and books and book furniture and libraries were the protectors of that power - a power not to be abused and not to be widely shared.⁶⁷⁷

In the late eighteenth and throughout the nineteenth century, reading for most people was restricted to texts that were offered in libraries.⁶⁷⁸ And growing

673 Wayne A. Wiegand, “Libraries and the Invention of Information,” *A Companion to the History of the Book*, eds Simon Eliot and Jonathan Rose, 2nd ed. (Chichester, 2020), 827–840, 827.

674 Alistair Black, “The People’s University: Models of Public Library History,” *The Cambridge History of Libraries in Britain and Ireland, Vol. III: 1850–2000*, ed. Alistair Black (Cambridge, 2006), 24–39.

675 Eliot, “Business of Victorian Publishing,” 59.

676 Lyons, “New Readers in the Nineteenth Century,” 334.

677 James Raven, “From Promotion to Proscription: Arrangements for Reading and Eighteenth-Century Libraries,” *The Practice and Representation of Reading in England*, ed. James Raven (Cambridge, 1996), 175–201, 201.

678 Stephen Colclough and Edmund G. C. King, “Readers: Books and Biography,” *A Companion to the History of the Book*, eds Simon Eliot and Jonathan Rose, 2nd ed.

acceptance of public libraries combined with the Public Libraries Act resulted in offering more books for users.⁶⁷⁹ However, the genre of fiction was discouraged by public libraries as it was deemed inappropriate reading material. Consequently, the institutions that profited from this were commercial lending libraries (also referred to as “circulating libraries”).⁶⁸⁰ These subscription libraries provided books for England’s middle and upper classes.⁶⁸¹

Mudie’s “Select Library”

The first loose forms of circulating libraries, that is the lending of books for money, came into existence in the seventeenth century. However, circulating libraries are mainly a phenomenon from the eighteenth century onwards and their economic high point was the latter half of the nineteenth century. Reason for this peak is the rise of the novel.⁶⁸² Among the most prominent and successful circulating libraries in England were the “Minerva Library” in the late eighteenth and early nineteenth century,⁶⁸³ W. H. Smith’s circulating library and Charles Edward Mudie’s “Select Library.” Especially the “Select Library” and its founder Charles Edward Mudie⁶⁸⁴ are oftentimes referred to as having shaped and even dominated the British publishing industry in their time. Indeed, manifold examples can be found that Mudie’s subscription library did, at least to a certain degree, exert an impressive amount of power. Bill Bell concludes as follows:

Not only did the lending library exercise immense control over the price, size and distribution of novels by mid-century, but, acting on behalf of what Thackeray referred to as “my squeamish public,” even dictated to a considerable degree the actual subject matter of fiction.⁶⁸⁵

(Chichester, 2020), 157–171, 158. The article mentions the idea of “censorship of price.”

679 McKitterick, “Introduction,” 49.

680 Howsam, “History of the Book in Britain, 1801–1914,” 306.

681 Eliot, “From Few and Expensive to Many and Cheap,” 478–479.

682 Charlotte A. Stewart-Murphy, *A History of British Circulating Libraries: The Book Labels and Ephemera of the Papantonio Collection* (Newtown, 1992), 13. Samuel Fancourt was the first to use the term “circulating library” in the first half of the eighteenth century.

683 Dorothy Blakey, *The Minerva Press. 1790–1820* (Oxford, 1939).

684 David Finkelstein, “Mudie, Charles Edward (1818–1890),” *Oxford Dictionary of National Biography* (Oxford, 2004) <<http://www.oxforddnb.com/view/article/19492>> (accessed: 11.12.2019).

685 Bell, “Fiction in the Marketplace,” 128.

Astonishingly, Mudie's influence went so far that it supposedly became a common question of publishers what Mudie might think of a story, in order to assess the economic viability of novels.⁶⁸⁶ Reasons for not circulating a novel in Mudie's library included sexual frankness, criticism of British marriage laws, prostitution, female infidelity, divorce, homosexuality and lay baptism.⁶⁸⁷ Some publishers allegedly even refrained from publishing a novel altogether if they feared Mudie's disapproval, as this would render the novel unmarketable and the print run a dead stock.⁶⁸⁸

Mudie started his business in 1840, selling newspapers as well as stationery and the lending of books.⁶⁸⁹ It was common for subscription libraries to earn extra money with other activities, which were more profitable than lending books.⁶⁹⁰ Two years later, Mudie's focus eventually shifted towards lending books. His success was mainly based on his reasonable charges: for one guinea a year, a person was able to take one interchangeable volume at a time for a whole year. For two guineas, Mudie allowed four volumes at the same time.⁶⁹¹ The notion of a "Select Library" already hinted at a system of choice concerning the texts he preferred to distribute.

As evidenced by the word "select" in the name of his library, Charles Edward Mudie exercised caution in circulating any novel deemed of questionable morality or poor taste, and his purchasing or declining a novel could make or break any author, especially those who pushed the boundaries in their depictions of sexual relationships. Hence, authors and publishers acquiesced, sometimes grudgingly, sometimes happily, to the demands of the libraries.⁶⁹²

However, Mudie refused to directly acknowledge a systematic selection process based on religious, political or moral ideals. When, in 1850, Thomas Carlyle

686 Altick, *The English Common Reader*, 296: "Mudie paid the piper, and on behalf of his large clientele he called the tune."

687 Helge Nowak, *Literature in Britain and Ireland: A History* (Tübingen, 2010), 263.

688 Kilgour, *Evolution of the Book*, 127.

689 Finkelstein, "Mudie, Charles Edward (1818–1890)."

690 Simon Eliot, "Circulating Libraries in the Victorian Age and After," *The Cambridge History of Libraries in Britain and Ireland, Vol. III: 1850–2000*, ed. Alistair Black (Cambridge, 2006), 125–146, 126.

691 Guinevere L. Griest, *Mudie's Circulating Library and the Victorian Novel* (Newton Abbot, 1970), 39. There are further subscription rates, also for clubs and other organizations.

692 Troy J. Bassett, "Circulating Morals: George Moore's Attack on Late-Victorian Literary Censorship," *Pacific Coast Philology*, 40.2 (2005), 73–89, 73.

accosted Mudie about being the man that divided the “sheep from the goats” in his library, he simply responded that his decisions were based solely on a commercial standpoint, even though he could not deny the fact that he preferred to circulate good books rather than bad books without elaborating on this distinction.⁶⁹³ Nevertheless, his growing success over the following years proved him right. His business grew steadily and became the leading distributor of new literature throughout the country. In 1850, his library counted approximately 25,000 subscribers, and only two years later, he opened further branches in Manchester and Birmingham, while his London branch had to relocate to a bigger building from Upper King Street to New Oxford Street.⁶⁹⁴ Richard Altick quotes the Authors’ Society, which estimated in 1894 that there were overall approximately 60,000 subscribers to circulating libraries, 25,000 of them belonging to Mudie’s “Select Library” and W. H. Smith, his biggest competitor, lagging behind with 15,000 subscribers.⁶⁹⁵

The importance of Mudie’s library for the publishing industry is illustrated by a crisis of Mudie’s business. In the early 1860s, Mudie had enormous financial problems, mainly for two reasons: first, a fierce competition developed around the business of circulating libraries. W. H. Smith expanded across the country and offered reading material in almost every train station. Even more threatening was the establishment of the “Library Company Limited,” which demanded only 6s. per year and thus undercut Mudie’s charge by 50 per cent. The second reason for Mudie’s financial difficulties was the enormous costs of renovating his business premises on New Oxford Street. Eventually, Mudie’s monetary problems were solved by a network of British publishers, Smith and Elder, John Murray, Longmans, Blackwood and Bentley among others. It is noteworthy that this consortium referred to Mudie’s financial crisis simply as “the secret,” fearing that, if the wrong people knew that Mudie’s library was about to collapse, repercussions on the whole publishing industry would be incalculable.⁶⁹⁶

Simon Eliot summarizes the reasons for Mudie’s success to four important innovations: the low annual subscription rate, conducting the library on a large

693 Griest, *Mudie’s Circulating Library*, 35.

694 Griest, *Mudie’s Circulating Library*, 19–20.

695 Altick, *English Common Reader*, 312.

696 David Finkelstein, “‘The Secret’: British Publishers and Mudie’s Struggle for Economic Survival 1861–64,” *Publishing History*, 34 (1993), 21–50. The financial aid was concluded in 1864 with Mudie’s “Select Library” becoming a limited company with Mudie being the shareholder of 50 per cent. The rest was shared between the publishing houses of the publishers’ network.

scale, choosing the titles carefully and therefore offering morally acceptable literature and heavy advertising.⁶⁹⁷ Mudie's business strategy was as simple as it was efficient: he ordered as many new texts as possible in large quantities and therefore guaranteed a broad range of texts and the availability of copies at the same time. Between 1853 and 1862, for example, Mudie ordered no less than 960,000 volumes for his warehouse.⁶⁹⁸ A letter from Annie Edwards's publisher makes it possible to put Mudie's acquisition policy into perspective: when Edwards's novel *Leah* was published in 1875, the "Mitchell Library" ordered six copies, the "Day and Cawthorn Library" 13, W. H. Smith ordered 25 and Mudie's "Select Library" 125 copies. Even though these figures are not necessarily representative of every acquisition, it is intriguing that Mudie did order five times as many copies as his main competitor, W. H. Smith.

The success of circulating libraries, especially Mudie's library, can mainly be explained with the high costs for books, especially novels:

Its artificially high price, supported by a market dominated by circulating libraries for whom three volumes meant thrice the income that could be obtained from just one, remained a retail benchmark long after it could no longer be justified by the ordinary costs of production. Copyright books were usually liable to higher costs for publishers than those that were out of copyright, but books of all kinds tended to rise in price in the years after 1815.⁶⁹⁹

The steep rise of interest in novels and the consequential growth of audience can mainly be attributed to urbanization, the development of overseas readership in the colonies, improvements of distribution networks, and also advertisements and promotion of books.⁷⁰⁰ During the 1850s, a novel was primarily and preferably in three volumes rather than just one. The term three-decker alludes to the British Royal Navy warships. The British Empire was in its peak at that time and the term 'three-decker' carried a high symbolic value as the naval supremacy was the main reason for Britain's successful expansion. Publishing novels in three volumes became standard most probably because of Walter Scott's tremendous success of his novel *Waverley*, which was published in three volumes simply because it was too expansive to issue it in two or even one volume.⁷⁰¹ The price of a new novel in three-decker format was 31s. 6d., or 10s. 6d. per

697 Eliot, "Circulating Libraries in the Victorian Age," 133.

698 Finkelstein, "The Secret," 22.

699 McKitterick, "Introduction," 7.

700 Flint, "The Victorian Novel and its Readers," 19.

701 Feather, *History of British Publishing*, 122.

volume. Considering that the average weekly income for a teacher was 17s., for a skilled builder 21s. and 27s. for a printer, there can be no doubt that a new novel was a luxury commodity only very few people could afford.⁷⁰² Novels published in monthly instalments were cheaper. On average, the reader would have to spend £1 for a complete set of instalments, albeit not bound, instead of 31s. 6d. for a whole novel. But not only was that still a considerable amount of money for a leisure commodity, the readers also had to wait until they had the complete novel. Even if the novel was initially published in monthly instalments, a three-decker edition was usually available before the last instalment was sold.⁷⁰³ Further, reading fictional texts in instalments hinted at a lower income and thus potentially could stigmatize the reader. On the other hand, these variations of publications made it possible for publishers to address various reading classes and readers were able to establish social distinction with the format of their choice. They expressed their cultural capital and position in the field of cultural production with the materiality of the reading matter.

Circulating libraries made it possible for readers to read many novels for a comparatively small fee. The 1850 Public Libraries Act was briefly feared as possible competition, but it soon became clear that the circulating libraries' main clientele, the middle classes, would not be affected that much by it. The Act, encouraging the growth and new foundations of local libraries, was mainly aimed at working class readers.⁷⁰⁴ Also, the provision of fiction was initially discouraged by the public libraries. Circulating libraries filled a market niche as they did offer novels.⁷⁰⁵ However, the majority of texts within the circulating system was non-fiction. Simon Eliot analysed Mudie's catalogue and concluded that in 1857, 75 per cent of the pages of the catalogue were devoted to non-fiction and only 25 per cent for fiction. Even though the balance is shifting to 58 per cent for non-fiction and 42 per cent for fiction in 1899, it can be concluded that Mudie either stocked more non-fiction or was at least advertising non-fiction more heavily.⁷⁰⁶ This hints at an attempt to maintain a serious image in the public eye. Fiction, however, was the main incentive for Mudie's subscribers.

702 Eliot, "From Few and Expensive to Many and Cheap," 471–472.

703 Griest, *Mudie's Circulating Library*, 52.

704 Alistair Black, "Introduction: The Public Library in Concept and Reality," *The Cambridge History of Libraries in Britain and Ireland: Vol. III, 1850–2000*, eds Alistair Black and Peter Hoare (Cambridge, 2006), 21–23, 21.

705 Howsam, "History of the Book in Britain, 1801–1914," 306.

706 Eliot, "Circulating Libraries in the Victorian Age," 134.

When Charles Mudie established his “Select Library,” he quickly dominated the lending library market with his low subscription rates of one guinea a year for one volume or two guineas a year for four volumes. No competing library was able to undercut him for long without going bankrupt. Therefore, the low subscription rates were the mainstay of Mudie’s success. This system clarifies why Mudie was supporting the three-decker format. First, the publication of novels in three volumes kept the artificially high prices up and decreased the incentive for readers to purchase novels. Further, if a subscriber intended to read a whole novel, they had to borrow three volumes instead of one. This way, the library’s stock was efficiently dispersed since one novel could be distributed to three persons at the same time. The incentive for Mudie’s and other commercial libraries to back publications in three volumes was clear. For publishers, circulating libraries were the main purchasers of their products and had even become dependent on their business. Libraries and publishers made money and middle class-readers accepted borrowing instead of owning.

Throughout the years, the triple-decker even gained a reputation which Guinevere Griest describes as an “aura of dignity and worth which tended to obscure those works unfortunate enough to be issued originally in a meagre one volume.”⁷⁰⁷ In fact, novels first published in only one volume were easily equated with dubious railway novels or cheap reprints and were thus deemed inferior.⁷⁰⁸ This stigma slowed down chances of acceptance of cheaper book formats. Over the decades though, novels became shorter: while a novel consisted of about 250,000 words during the time of Walter Scott and even Charles Dickens and William Makepeace Thackeray, the average length of a novel dwindled down to 150,000 words in the middle and even 80,000 words towards the end of the nineteenth century.⁷⁰⁹ Publishers initially used various strategies to still justify a publication in three volumes. There was a certain amount of leeway to produce a three-decker with layout. One of the shortest three-deckers published in the English language was Mary Wollstonecraft Shelley’s *Frankenstein* in 1818, which consisted of 67,150 words. Thomas Hope’s *Anastasius* on the other hand, one year later, was also published in three volumes but consisted of 273,996 words.⁷¹⁰ Methods to blow up a text to fill three volumes included the type size, very big

707 Griest, *Mudie’s Circulating Library*, 46. This did not only concern novels, but non-fiction such as autobiographies as well.

708 Griest, *Mudie’s Circulating Library*, 48.

709 Griest, *Mudie’s Circulating Library*, 45. A development partially owed to the more and more popular way of publishing serialized novels in magazines.

710 Griest, *Mudie’s Circulating Library*, 45.

headlines, large margins and lavish spacing. Publishers also urged authors to use textual tricks like lavish and extensive scenery descriptions to reach higher word count. A more blatant trick is the case of Emily Brontë's *Wuthering Heights*: it was issued in combination with her sister Anne's *Agnes Grey* in a three-decker, a fact that was revealed to the reader only in the third volume.⁷¹¹

In the final years of the nineteenth century, however, the importance of the three-decker dwindled down. Readers became weary, complained about the boring second volume, and started assuming that novels were blown up to justify an expensive publication in three volumes.⁷¹² Authors also complained because of the evident restriction of content, as the following example of George Moore demonstrates: Moore's first novel, *A Modern Lover* from 1883, gained favourable reviews in journals like the *Spectator*. But despite these reviews, Mudie refused to circulate his novel on moral grounds. Even an interview between Moore and Mudie did not reach a satisfying conclusion.⁷¹³ As a result, Moore wrote another novel to spite Mudie, this time almost ensuring that the "Select Library" would not accept it for circulation. The author decided to publish it in a cheap one volume format for 6s. As he had hoped, his second novel earned favourable reviews again and the novel became a success. With this momentum, Moore decided to publicly protest against the power of the circulating libraries with an open letter entitled "A New Censorship in Literature" in the *Pall Mall Gazette* in 1884.⁷¹⁴ The author hoped to find influential support by other authors and publishers to eventually break the circulating library system with its approach to select literature and thereby effectively committing censorship. However, despite the initial success of Moore's strategy, he eventually failed in his undertaking.⁷¹⁵

Further developments in the publishing trade made it difficult for the three-decker to survive. On average, the purchase of a three-decker was profitable for a circulating library after nine to twelve months.⁷¹⁶ The gap of time elapsing until a cheap reprint of a novel was published, however, became smaller and smaller. By the 1880s, technological improvements in book production had been firmly established. Cheaper book production methods were completely accepted

711 Both novels were published under their respective pseudonyms, Ellis and Acton Bell. Griest, *Mudie's Circulating Library*, 55.

712 Griest, *Mudie's Circulating Library*, 127.

713 Bassett, "Circulating Morals," 75.

714 Tom Hubbard, "I Hate You, Mr. Mudie," *Library Review*, 27.3 (1978), 160–164, 160.

715 Bassett, "Circulating Morals," 84–87.

716 For a breakdown of how much Mudie earned per subscriber and volume, see Eliot, "Circulating Libraries in the Victorian Age," 129.

both by publishers and readers. Technology finally permitted publishers to break away from the interdependence of circulating libraries, as cheaper reprints had become a lucrative income for them. Consequently, a one volume reprint might even be published only three months after the first three-volume edition was printed. It became almost impossible for a library to profit from three-deckers anymore. Mudie's success model became outdated and eventually the "Select Library" stopped supporting this form of publication altogether.⁷¹⁷

3.2. Acceptance of Industrialized Book Production

The continuous growth of a literate public was enhanced by the optimization of distribution with the development of railroads. Both developments led to an increase in potential customers for publishers. More readers alone did not automatically lead to a general increase in sold copies. The potential of a big market was the incentive to develop, and eventually enhance, stereotype and electrotype printing. Creating plates was still expensive but far less expensive and thus less economically dangerous than to print large editions which might not sell well enough and take up valuable storage space and bind capital. Despite the possibility of having a relatively cheap way to reprint (texts which may turn out successful during the first edition), printers initially preferred creating plates from texts which were almost guaranteed to be reprinted, namely classics and textbooks. The American market proved very promising for British publishers. The US market only printed its own literature beginning in the middle of the nineteenth century whereas before, imports of British books as well as stereos had previously satisfied the American market.⁷¹⁸ New texts, such as the rising genre of the novel, were initially printed from movable type rather than plates. Texts produced from plates had the disadvantage that their typographic style was locked, disabling them from adapting to new impulses in typographic design, despite the possibility to cut out short passages and include corrections. This initially resulted in an overall larger production of books, albeit with more of the same texts. The increased production led to another consequential limitation: the scarcity of paper. The subsequent attempts to find cheaper replacements

717 Eliot, "Circulating Libraries in the Victorian Age," 136. For a more detailed analysis of the declining three-decker, see Simon Eliot, "The Three-Decker Novel and its First Cheap Reprint, 1862–94," *The Library*, 6th ser., 1 (1985), 38–53.

718 Aileen Fyfe, *Steam-Powered Knowledge: William Chambers and the Business of Publishing, 1820–1860* (Chicago, 2012), 79–87.

for rag resulted in a variety of different paper qualities. The diversity of raw materials entailed a diversity of physical quality.

Circulating libraries like Mudie's "Select Library" had a much more noticeable effect on the book trade. Some authors tried to write according to Mudie's taste or values and at the same time, write a text long enough to justify a three-decker. Circulating libraries first and foremost tended to supply the middle classes. The working classes, though steadily growing as a reading audience, were forced to limit themselves to either reading cheap reprints of classics or instalments of texts in newspapers or magazines. The book as a commodity became affordable only in the late nineteenth century when manifold developments were finally accepted and preferred by printers and publishers and thus turned the luxury item book into an affordable everyday object.

The developments of magazine publishing and of the newspaper business was immensely important for the acceptance of innovative print production. Magazine publishing almost immediately profited from the multiple changes within society, technology and economy of the age.⁷¹⁹ Though, in essence, serials offer reading material as well, the differences between the book publishing and magazine and newspaper publishing industries are staggering. Whereas the book industry in the nineteenth century tended to be a rather conservative publishing environment, Norman Feltes describes the serial publishing industry as potentially disruptive.⁷²⁰ Serial publishing implemented technological possibilities sooner, as they, to a degree, even relied on them. Folding and binding machines were initially invented for serials and only later applied to book production. The improvements of printing machines were also driven by serial publishing, as was the search for cheaper raw material for paper.⁷²¹ Also, the layout of newspapers changed immensely. The early nineteenth century offered newspaper title-pages that did not attract much attention and mainly offered advertisements. At the end of the century, illustrations and lavish headlines with dazzling typography dominated the front-pages.⁷²² The implementation and consequential improvement of illustrations led to a wide appeal of newspapers throughout the century.⁷²³

The development of serial publications led to a more standardized way of producing books. Publishers wanted their books and series to be recognized and

719 Howsam, "History of the Book in Britain: 1801–1914," 304–305.

720 Norman N. Feltes, *Modes of Production of Victorian Novels* (Chicago, 1986), x.

721 Green, "Paper," 78–79.

722 Eliot, "From Few and Expensive to Many and Cheap," 472–473.

723 McKitterick, "Introduction," 20–21.

therefore decided on one paper and typographic design. Further, it slowly became the rule that books were bound before they were sold, using the edition binding as a further element in the corporate design of the publisher. These bindings reflected the publishers' prestige and trustworthiness signifying symbolic value.

The economic success of serials encouraged many authors to write even more, leading to an "army of writers,"⁷²⁴ as John Feather puts it. Authorship itself was established as an accepted occupation. Fictional texts were published in instalments and were afterwards sold in book-form. Book production benefited from the enormous success of serials. Eventually, serials forced a reduction of book prices enabling a broader social group to acquire books by the end of the nineteenth century.⁷²⁵ In many respects, serial publishing was the precursor of several elements. It stirred an interest in reading, aroused fascination with novels, pushed technological limitations and induced inventors to develop cheaper production possibilities for printed matter. Book publishers remained sceptical and cautious of new possibilities, partly because bankruptcy was easily the result of false predictions. Potential new readers refrained from becoming new customers because they were not willing to accept the high prices for books. It was only after the significant lowering of book prices that book publishing could finally take off as a mass-market.

In the late nineteenth century, the first edition of a book, now usually in a standard publisher's cloth binding in a single volume, was a third of the price compared to a century before. An even cheaper edition was published just several months later and a paperback edition for just 6d was possible if the text proved to be successful after a couple of years. As Robert Louis Stevenson put it: "to get into cheap editions means being popular."⁷²⁶ Within a hundred years, Britain's book publishing industry witnessed a vital transformation, even though some innovations were only slowly accepted. Simon Eliot is certainly right when he states that, concerning publishing, the nineteenth century was merely "a dress rehearsal for the twentieth century."⁷²⁷

Most technological developments of book production during the industrialization were about speed and increase of print runs. With almost all developments, the symbolic value of the printed book suffered. Just like the

724 Feather, *A History of British Publishing*, 132.

725 Brake, "Trepidation of the Spheres," 84.

726 *The Letters of Robert Louis Stevenson: Vol. III, August 1879-September 1882*, eds Bradford A. Booth and Ernest Mehew (New Haven, CT, 1994), 129.

727 Eliot, "From Few and Expensive to Many and Cheap," 483.

printing press, innovations in book production during the nineteenth century encountered critical voices: “Thomas Carlyle (and cultural pessimists around the globe) denounced the new machinery as mechanizing minds, devaluing literature and learning, and replacing craftsmanship (in writing as well as in publishing) by the robotic and the mass-produced.”⁷²⁸

Counter-movements against the devaluation of cultural objects due to mass production started to grow. A famous example is William Morris, leading member of the Arts and Craft movement in the second half of the nineteenth century. In his later years, Morris focussed on his Kelmscott Press, which applied the printing technology of early printing presses. The type mimicked medieval handwriting and the texts printed included, among other things, medieval and early modern English texts. Morris’s idea was that the produced books had to be a pleasure to look at and work with.⁷²⁹ Indeed, the results of his works are impressive. His famous Kelmscott Chaucer, but also smaller works, such as Thomas More’s *Utopia* or the Dutch fable of *The History of Reynard the Foxe* (Caxton’s translation) are all created with utmost care: from the high quality of the paper, the very dark ink that created an astonishing contrast to the paper and calfskin binding are all material aspects that give the Kelmscott publications the characteristics of a *de luxe* book. Morris even imitated further medieval book elements like foliation, decorated initials, colophons and a printer’s device. Apart from that, the layout of the pages adheres to the golden ratio formula, it offers ample white space as well as printed marginalia.⁷³⁰

Nevertheless, such counter-reactions against, in Walter Benjamin’s terms, the loss of aura⁷³¹ of art objects due to mass production have to be regarded as

728 James Raven, “The Industrial Revolution of the Book,” *The Cambridge Companion to the History of the Book*, ed. Leslie Howsam (Cambridge, 2015), 143–161, 143.

729 Fiona MacCarthy, “Morris, William (1834–1896),” *Oxford Dictionary of National Biography* (Oxford, 2009) <<http://www.oxforddnb.com/view/article/19322>> (accessed: 11.12.2019).

730 See, for example, William S. Peterson, *The Kelmscott Press: A History of William Morris’s Typographical Adventure* (Berkeley, 1991).

731 Benjamin’s essay was first published as “L’œuvre d’art à l’époque de sa reproduction mécanisée,” *Zeitschrift für Sozialforschung*, 5 (1936), 40–68. The following quote is from Walter Benjamin, “The Work of Art in the Age of Mechanical Reproduction,” *The Work of Art in the Age of Mechanical Production* (London, 1936; repr. 2008), 1–50, 7: “We can encapsulate what stands out here by using the term ‘aura’. We can say: what shrinks in an age where the work of art can be reproduced by technological means is its aura. The process is symptomatic; its significance points beyond the realm of art. *Reproductive technology, we might say in general terms, removes the thing reproduced*

isolated cases which at most only briefly interrupted the developments towards more efficient production possibilities. In Morris's case, his Kelmescott Press, established in 1891, started printing when the book trade had already been almost completely industrialized. However, the acceptance of new technologies during the nineteenth century was slowed down by various reasons. This becomes strikingly obvious in comparison to the newspaper industry, which was far more open to technological advancements, sometimes even being the precursor or initiator for such developments.

Iron presses represented a minor improvement in the technology for book production, and their effects only added little value for printers as well as readers. Printing was essentially made a little faster and the print quality improved. However, these effects were only minor in comparison to other developments during the industrialization. Printing machines, although introduced in the early nineteenth century, were not standard in book production until the late nineteenth century. Initial rejection stemmed from printers who were unsure about the new technology and feared for their jobs. When John Walter II, founder of *The Times*, planned to use steam-driven printing machines for his newspaper in 1814, he dreaded an uproar of his workmen similar to the Luddites in early nineteenth century that smashed the machines in the textile industry. Consequently, he secretly set up the machines in a warehouse nearby and paid people off to stay quiet about it.⁷³² This example stresses the reservations of people within the printing industry. Active opposition would have been a crucial enemy of acceptance. Still, printing machines for newspaper production were established pretty early in the first half of the nineteenth century. However, the expenses for a machine were too high for book production. The market was not big enough for high print runs that would eventually make up the initial investment in the new technology. This would only change at the very end of the nineteenth century.

The complex tax situation on paper in Great Britain limited the speed possibilities of the printing machines, which, however, only affected the newspaper

from the realm of tradition. In making many copies of the reproduction, it substitutes for its unique incidence a multiplicity of incidences. And in allowing the reproduction to come closer to whatever situation the person apprehending it is in, it actualizes what is reproduced." Even though Benjamin focuses more on film and photography, the main concept of the loss of aura can, to an extent, also be applied to the mass production of books in the late nineteenth century.

732 Richard D. Fulton, "Walter, John, 1776–1847," *Oxford Dictionary of National Biography* (Oxford, 2004) <<http://www.oxforddnb.com/view/article/28637>> (accessed: 11.12.2019).

production. The new production methods of paper introduced in the nineteenth century initially saw not only an increase in speed, but also an increase in quality. The Fourdrinier machine produced much more durable paper. However, cheaper raw material in the form of Esparto grass did not meet the quality of rag paper and therefore devalued the book as a material object. Again, printers and publishers gained the most from the enhanced production methods by saving production costs. Logistics were made easier with constant supply and the financial risks were lower as not as much capital had to be invested in paper.

The most prevalent change in book production during the industrial age was the introduction of plate technology. It vitally affected the British book, albeit in a slow way. The fear of compositors that they might not be needed any longer led them to oppose the new technology. This turned out to be a short-sighted reaction. Due to the enormous success after a few decades, a larger reading audience could be reached and more compositors were needed than ever before.⁷³³ Nevertheless, one of the possible reasons that inspired the creation of printing from plates, the scarcity of paper, was also keeping printers from creating plates for new texts. Paper was still an expensive factor for book printing until the 1850s. The breakthrough of stereotyping was dependent on cheaper paper production. In the meantime, only established texts were chosen to be produced by new technologies. In other words, old texts were initially printed with new technology and new texts initially with the old and established technology.

The drawbacks of plaster moulds described above may explain why stereotyping did not become standard procedure for book production until the middle of the nineteenth century. It is revealing to see that paper moulds, a cheaper production with limited printing quality finally superseded plaster moulds. In theory, using the technology of stereotyping would be a prudent choice for printers with all the advantages discussed above. However, it took decades until it was indispensable for printers to have a full understanding of the technology.⁷³⁴ The question remains why the book industry took so long to exploit it. Ultimately, it might have become standard practice sooner. Dooley quotes Thomas Curson Hansard, a master printer in Britain, who published several manuals on printing. In his paragraphs about stereotyping, he did not cease pointing out the inferiority

733 Dooley, *Author and Printer in Victorian England*, 61.

734 Dooley, *Author and Printer in Victorian England*, 59. Dooley quotes a handbook tip from 1877 that says so.

of this technology due to its lack of quality in prints and the unpredictability of the plates themselves.⁷³⁵

This and the previous chapter have discussed the introduction and acceptance of new technologies in book production in the fifteenth and nineteenth centuries. Both time frames have shown that acceptance of new technology was not immediate. However, whereas printing was accepted rather quickly, the acceptance of new production technology in the nineteenth century took much longer and had to overcome opposition from the stages of production and reception alike. Both eras led towards a broader selection of content as well as a more convenient form of the book. A pattern which stands out the most is that new production possibilities were initially used to produce established texts. After a while, however, these new possibilities strengthened new forms of content in the long run. The latter stage is an important one for the acceptance of the new form of the book.

3.3. Book Value Categories Applied

Apart from quality concerns, the decision for which titles to create plates remained a crucial one for a long time. Estimating which works would warrant a reprint was still risky due to the very high price of paper. Even with the cheaper, faster and less complex paper mould stereotype technology, it was still more expensive and needed more logistical steps and much storage room for the moulds and plates. Therefore, most printers played it safe by printing works that more or less guaranteed a safe demand: standard texts of reference works and inexpensive popular classics.⁷³⁶ Ultimately, as Martyn Lyons labels it, a “two-tier market” was created:

As a result, ordinary readers were fed not the exciting romantic writers who were at the cutting edge of literature, but the old canon of Chaucer, Milton, Pope, Spenser, Defoe and Goldsmith. This created a two-tier market. Wealthy readers demanded new expensive works, but less well-off readers were sold cheap reprints of uncontroversial pre-Enlightenment worthies.⁷³⁷

⁷³⁵ For example, Thomas Curson Hansard, *Typographia: An Historical Sketch of the Origin and Progress of the Art of Printing* (London, 1825), 829–845. Hansard extensively elaborates on alleged advantages of stereotyping for printer, bookseller and the public and sees flaws in most arguments. Contemporary handbooks on printing procedures are generally a very good source, despite the occasional subjective slants.

⁷³⁶ Mosley, “Technology of Printing,” 100.

⁷³⁷ Lyons, *Books*, 106.

It has to be taken into consideration that stereotype plates were frequently sold or hired out to other printers who could produce the same text in different edition styles to appeal to various markets and consequently different price segments.⁷³⁸ In the middle of the nineteenth century, new texts were only seldom deemed worthy of being stereotyped. Contemporary authors might have found it a “crowning honour” to be stereotyped, as the publisher assessed their text worthy of being reprinted sooner or later.⁷³⁹ Finkelstein even maintains that authors in the industrial age esteemed the technological advances as the “ultimate symbol of progress” and that authors might “accrue valuable cultural capital and financial profit from harnessing this new power.”⁷⁴⁰ Other authors, however, had ambivalent feelings about these new technologies. Even though the prospect of enhanced economic value from potential reprints of their novels was certainly noteworthy, the very limited potential of revising their work in consecutive editions diminished the economic chances decisively for several authors. Dooley quotes George Eliot who laments on the fact that she will not be able to correct some mistakes in *Middlemarch* since it had been stereotyped and consequently would have needed new plates to be created.⁷⁴¹ This, in essence, means a loss of content value since this new technology had “the inevitable effect of reducing the authorial control that had previously allowed writers to make significant changes to their texts as they were recomposed for a new impression or later edition.”⁷⁴² This disadvantage, however, could prove an advantage for complex texts which might run the risk of faulty resetting and therefore lose content value.

A final disadvantage of creating plates was that not only was the extent of a text only very slightly modifiable, it was the layout itself which was locked. This proved to be a drawback in a time when ideas and tastes of design and typography changed quickly.⁷⁴³

The introduction of printing from plates can be regarded as having initially little “added value” for customers of books. Unfortunately, detailed comments from readers about books printed from plate technology are wanting. It seems

738 Weedon, *Victorian Publishing*, 75.

739 Percy Russell, *A Literary Manual: A Complete Guide to Authorship* (London, 1886), 129. Quoted in Dooley, *Author and Printer in Victorian England*, 58.

740 David Finkelstein, “Publishing and the Materiality of the Book,” *The Cambridge History of Victorian Literature*, ed. Kate Flint (Cambridge, 2012) 15–33, 19.

741 Dooley, *Author and Printer in Victorian England*, 76.

742 Keighren, Withers and Bell, *Travels into Print*, 187. However, it is doubtful whether readers were aware of this.

743 Mosley, “The Technologies of Printing,” 198.

unlikely that readers noticed the changes in the first place. And if they did notice, it remains hard to establish what their reactions would have been. The *Reading Experience Database*, in any case, offers no results of readers commenting on books printed from stereotype plates for this time frame.⁷⁴⁴ Other sources exist, but have to be used with caution. An entry in Jon Bee's (aka John Badcock⁷⁴⁵) dictionary *Slang* (1823)⁷⁴⁶ defines the term "stereo" as "abbreviated from stereotype; one of the cheap-and-nasty manufactures in this country, the pages being usually left incorrect and blunderous, in pursuance of the saving plan which first suggested casting them in stereo. Originally done by Glasgow Foulis."⁷⁴⁷

Even though this definition is probably written tongue in cheek, it can still reveal a certain resistance to this new technology. In fact, Bee refers to Robert Foulis,⁷⁴⁸ who went into partnership with Alexander Tilloch,⁷⁴⁹ who re-invented stereotyping in the 1780s. To limit possible competition, Tilloch created inferior plates with bad texts with his new technology on purpose. This is a striking example because Foulis was known for high quality prints. If Bee refers to these plates created to discourage possible competition, it is still not clear whether he knew about Tilloch's idea and jokingly refers to this or whether he truthfully depreciates stereotype plate printing.

744 UK RED: *The Experience of Reading in Britain, From 1475 to 1945* <<http://www.open.ac.uk/Arts/reading/UK/search.php>> (accessed: 22.04.2019). For more information on the database, see Rosalind Crone et al., "The Reading Experience Database 1450–1945 (RED)," *History of Reading: A Reader*, ed. Shafquat Towheed (London, 2011), 427–436.

745 W. P. Courtney, "Badcock, John (fl. 1810–1830)," rev. Dennis Brailsford, *Oxford Dictionary of National Biography* (Oxford, 2004) <<http://www.oxforddnb.com/view/article/1014>> (accessed: 11.12.2019).

746 Jon Bee, *Slang: A Dictionary of the Turf, the Ring, the Chase, the Pit, of Bon-Ton, and the Varieties of Life, Forming the Completest and Most Authentic Lexicon Balatronicum hitherto Offered to the Notice of the Sporting World* (London, 1823). Both the title as well as other titles by the publisher lead to the assumption that this publication is not necessarily to be taken for serious reading.

747 Bee, *Slang*, 166.

748 Richard Ovenden, "Foulis, Robert (1707–1776)," *Oxford Dictionary of National Biography* (Oxford, 2004) <<http://www.oxforddnb.com/view/article/9991>> (accessed: 11.12.2019).

749 John Burnett, "Tilloch, Alexander (1759–1825)," *Oxford Dictionary of National Biography* (Oxford, 2006) <<http://www.oxforddnb.com/view/article/27448>> (accessed: 11.12.2019).

Plates became commodities in their own right for publishers, as did the implementation of edition binding during the nineteenth century which were both used as “added value” in the economic sense:

Publishers traded in stereotype plates, buying and reissuing old editions in a new dress. Copyrights of classic series, encyclopaedias and popular science works were passed from hand to hand in stereotypes, each successive publisher-owner giving the books a boost with a fresh look and new title-page.⁷⁵⁰

However, printing from plates in combination with cheaper paper production had the effect that more copies were printed and sold at a lower price and more books were distributed. This helped the book as a medium become more effective and can therefore be considered as added content value.

Distribution changes during the nineteenth century affected the values of the book in several ways. The introduction of the railway system enhanced the possibilities to transport books which in turn affected the availability of reading material and therefore content value. The role of circulating libraries, especially Mudie’s “Select Library” must not be underestimated. His success shaped British literature and book production and makes Britain, again, a unique case for book values. Mudie profited from the initial high symbolic value of novels produced in three volumes, a standard form for novels unique to Great Britain. Cheaper formats of novels, especially part-issue publications, were deemed inferior as they signified low income, the possibility to read straight through a novel on the other hand indicated wealth.⁷⁵¹ The choice of format therefore offered a form of social demarcation. Mudie essentially thwarted a development towards cheaper book production for several decades. The three-decker now represented high symbolic value because it was equated with Mudie’s moral values. The format of the book signified impeccable content. The overwhelming importance of Mudie and his competitors for publishers resulted in a common agreement to keep the three-decker format alive. Eventually, technological improvements allowed publishers – and consequently readers – to become independent of circulating libraries as cheap reprints had become an economically viable alternative to solely relying on the approval of novels by the circulating library. The publication strategy of George Eliot’s *Middlemarch* indicates that some publishers were even trying to circumvent the dependence on circulating libraries earlier. Simon Frost, in his study *The Business of the Novel: Economics, Aesthetics and the Case of*

750 Weedon, *Victorian Publishing*, 159.

751 Bell, “Fiction in the Marketplace,” 125–144, 137.

Middlemarch (2012),⁷⁵² examined the publishing procedures of Eliot's novel and comes to the conclusion that John Blackwood was weary of the dependence on commercial libraries:

In 1871, when George Eliot pondered how to write *Middlemarch* and John Blackwood wondered how best to secure rights in a profitable form, they both turned to the publishing market for a solution. At that point, the Dickens shilling monthly was all but extinct. The penny weeklies were too cheap for Eliot's high art. The dominant three-volume triple-decker still cost a staggering thirty-one and a half shillings (approximately half a month's wage to a labourer). Furthermore the Blackwood's firm wanted to escape financial restriction imposed via the private libraries' bias towards three volumes, and to access new markets of book *buyers* instead of book *borrowers*. The solution hit on by the Eliot-Lewes-Blackwood's team was an innovative collaboration, a four-volume novel published in eight book-length parts at five shillings per part. Each part would look and feel like a luxury triple-decker volume, with similar typography, spacing and paper quality, but be sized to fit a jacket pocket. With its cheap(er) five-shilling purchase price, it would be distributed through retail outlets, which included railway stalls such as Smith's rather than through commercial libraries.⁷⁵³

The trend seemed clear as publishers hoped for more buyers and estimated that cheaper book prices might entice enough readers to purchase books that might compensate for the loss of bulk purchases from commercial lending libraries. Nevertheless, as this example shows, certain characteristics like paper and typography were kept so the symbolic value of the bought book would not be deemed lower than the circulating library novel. In this regard, the publication of *Middlemarch* in many respects represents the transitional phase from the dominance of the three-decker to the much cheaper one-volume novels that would become the norm in the twentieth century. The aim to copy certain elements of the circulating library novel by Blackwood emphasizes the perceived high value of the triple-decker during the mid-nineteenth century. The prediction of publishers that buyers would become more important than borrowers was eventually fulfilled by the further acceptance of technological improvements and reduction of paper costs and the eventual focus on shorter novels that no longer necessitated the multi-volume form. The development towards a commodity culture and a consumer economy (of which all agents of the life cycle of the book were part) was in full bloom in the late nineteenth century. The material quality of the book may have suffered after most technological innovations had

752 Simon Frost, *The Business of the Novel: Economics, Aesthetics and the Case of Middlemarch* (London, 2012).

753 Frost, *The Business of the Novel*, 3.

been accepted by the book industry, but a broader, faster and cheaper distribution of texts overall resulted in higher content value as more people, not only in a geographical but also in a social sense, were granted access to and ownership of books. The steep rise in literacy rates and indeed people who wanted to read could not be neglected by publishers. This trend continued until the book was, yet again, facing revolutionary changes in the digital age.

