The History and Future of the OED

Thank you very much for the honour you have given me. I am delighted to be here, and hope that I can keep you entertained: there are odd, interesting, and sometimes even amusing people and anecdotes in the long history of the Oxford English Dictionary.

As you know, the OED is the largest English dictionary in existence, consisting of 12 volumes and a Supplement in the first edition of 1933, and 20 volumes in the second edition of 1989. There is however often misunderstanding: “the OED”, especially in the media, becomes a generic name given to all Oxford dictionaries. The second edition takes up over a metre of shelf space and weighs 62.6 kilos, and it is therefore very funny to find a statement in a novel that somebody, in a rage, “hurled the OED across the room”!

The Dictionary was called The New English Dictionary (or NED) until 1933, when its name was officially changed to the OED. A dictionary “on historical principles”, it tells the story of each word from its beginnings to the present by using quotations from printed literature, newspapers, and journals—quotations which enable editors to discover the meaning or meanings of a word, to establish the date at which it seems first to have entered the language, and, arranged chronologically, to illustrate its usage through time for the reader.

1. The Context for the OED

The earliest English word lists were 16th-century bilingual glossaries of Latin, Italian, or French words. The first true monolingual English dictionary, Robert Cawdrey’s Table Alphabeticall of 1604, had the aim of helping and enlightening what he called “Ladies, Gentleswomen, or any other all unskilfull persons” with the “hard vsuall English wordes”.

By the first half of the 18th century the so-called “hard words” publications began to make way for dictionaries which defined the meanings of regular words for the general reader. Nathan Bailey’s dictionaries, An Universal Etymological English Dictionary of 1721 and Dictionarium Britanicum of 1730, were the best-known and most popular, and Bailey provided the most famous 18th-century dictionary maker, Samuel Johnson, with a base from which to work for his great Dictionary of 1755. Johnson’s work in turn provided a vital source of information for the NED editors, towards the end of the 19th century.

18th-century lexicographers were often far from scientific or objective in their methodology. Although they used quotations as evidence, definitions showed their personal biases: for example, Johnson’s famous definitions of Whig and Tory—you can tell which party he supported!
Tory, One who adheres to the antient constitution of the state, and the apostolical hierarchy of the church of England, opposed to a whig.

Whig, The name of a faction.

18th century lexicographers believed that the so-called ‘true meaning’ of a word lay in its etymological origin. Their methodology was philosophical in approach, rather than empirical. John Horne Tooke, who was highly influential in England at the turn of the 18th and 19th centuries, illustrates this metaphysical theorizing clearly, around the letters BAR:

A bar, in all its uses, is a Defence: that by which any thing is fortified, strengthened, or defended. A barn..is a covered inclosure, in which the grain &c. is protected or defended from the weather, from depredation, &c. A baron is an armed, defenceful, or powerful man. A barge is a strong boat. A bargain is a confirmed, strengthened agreement… The bark of a tree is its defence.¹

In the 19th century, Charles Richardson’s New Dictionary of the English Language of 1836-7 reinforced this philosophy: ‘Each word has one radical meaning, and one only:..in the Etymology of each word must be found this single intrinsic meaning’.

So meaning and etymology were indivisible to lexicographers at this time. But the circular way in which each was used to discover the other was soon to be challenged—by, among others, the people who prepared the ground for the OED’s creation.

A sea-change had taken place in Europe in the way dictionaries were made, influenced particularly by the work of the German philologist Franz Passow. The new, scientific methodology was introduced into England in Liddell and Scott’s Greek-English Lexicon of 1843—a translation of Passow’s German version.

2. The Philological Society and the NED’s beginnings

The members of the Philological Society of London had been conscious for some time that English dictionaries were deficient. Originally, their idea was to compile a Dictionary which simply supplemented the earlier works of Samuel Johnson and Charles Richardson. So a group, with the wonderful name of the ‘Unregistered Words Committee’, was set up by the Philological Society to gather evidence and draft new entries.

But in 1857 two papers were delivered by an eminent member, the then Dean of Westminster, Richard Chenevix Trench, which changed the Society’s thinking. Trench set out the need for a new dictionary, and the methodology which should be

followed. He summarized the problems with English dictionaries as follows² (I am paraphrasing):

I. Obsolete words are inconsistently handled, some included, some not.
II. Groups or families of words are inconsistently handled—some included, some not.
III. Words are both older in origin, and more recent, than dictionaries show.
IV. Meanings or senses of words are patchily covered, with the earliest often missing.
V. Synonyms are not well covered.
VI. The reading of literature for quotations needs to be more rigorous and comprehensive.
VII. And lastly, Dictionaries include many things which do not deserve inclusion.

Dean Trench defined a Dictionary as ‘an inventory of the language’: he said ‘It is no task of the maker of it to select the good words of a language. If he..begins to pick and choose, to leave this and to take that, he will at once go astray.. He is a historian of [the language], not a critic.’ … ‘The lexicographer is making an inventory; that is his business;..his task is to make his inventory complete.’³

In 1858 the Society passed a resolution, as a result of Trench’s papers, to compile not a Supplement, but a completely new English Dictionary. The aim was to compile a ‘complete inventory’ of English: but this turned out to be an impossibility.

Two years later, in 1860, a document titled A Proposal for the Publication of a New English Dictionary by the Philological Society appeared, setting out the ground rules. The Dictionary should contain ‘every word occurring in the literature of the language it professes to illustrate’; readers would scrutinize ‘all English books (a very ambitious target!), except such as are devoted to purely scientific subjects’; editors would start ‘with the commencement of English,.which took place about the end of the reign of Henry II’ [that is, in the year 1272]. They continued: ‘We shall endeavour to show more clearly and fully than has hitherto been done..the development of the sense or various senses of each word from its etymology and from each other, so as to bring into clear light the common thread which unites all together;..to fix as accurately as possible, by means of appropriate quotations, the epoch of the appearance of each word in the language, and..of their disappearance also.’⁴

The publication ended with a patriotic exhortation:

All that is desired at present is to enlist the sympathies of the public on behalf of the work… England does not possess a Dictionary

² Trench, R.C. (1857) On some Deficiencies in our English Dictionaries p. 3. London: John W. Parker & Son.
³ Trench (1857) pp. 4-5.
worthy of her language… We call upon Englishmen to come forward and write their own Dictionary for themselves.\(^5\)

It was, of course, never to be as simple as that.

In 1860, after considerable debate and revision, the pamphlet *Canones Lexicographici; or Rules to be observed in editing the New English Dictionary* was issued as a final plan for the Dictionary, which would consist of:

I. a ‘main’ Dictionary of general words;
II. a vocabulary of scientific and technical terms, and of proper names of persons and places, and
III. an etymological appendix.

This was not a structure that would survive.

The first editor was appointed—Herbert Coleridge, the grandson of the poet Samuel Taylor Coleridge. After studying at Balliol College, Oxford, achieving a double first, he qualified as a barrister. As he had private means, he was free to devote his leisure hours to philology, and the new Dictionary. The *Oxford Dictionary of National Biography* comments:

Coleridge threw himself into this project with his characteristic enthusiasm, became its chief workman, and was appointed honorary secretary of a special committee ‘formed for the purpose of collecting words and idioms hitherto unregistered’, a post for which he was well fitted by his learning..and methodical habits.

Despite increasing weakness from tuberculosis, he continued to work hard, and dictated notes for the dictionary even during the last fortnight of his life, while confined to bed. He died at the early age of 31, after contributing some fundamental work for the project.

The second editor was Frederick Furnivall. He was one of the NED’s eccentrics, with bright pink neckties, baggy suits, and a long, white beard, a man ‘remarkable for his physical and intellectual restlessness’.\(^6\) A barrister, like Coleridge, it seems that he showed little enthusiasm for the law, and gradually moved towards a literary and scholarly career. While at Cambridge ‘Furnivall spent much of his time on the river, and boating remained a passion throughout his life.’ Furnivall established a rowing team on the Thames for working-class girls, a project for which he displayed great

\(^{6}\) ODNB Online: *Furnivall, Frederick James* (2012) by W. S. Peterson.
enthusiasm, as it linked two of his favourite activities: ‘vigorous outdoor exercise and enjoyment of the company of young women.’

As well as working on the *New English Dictionary*, Furnivall was a founder of a series of literary and philological societies, such as the Early English Text Society (1864), the Chaucer Society, and the New Shakspeare Society (1873). Some of them, at least, were created as a direct result of Furnivall's work on the *New English Dictionary*. He has been called ‘one of the great rock-blasting entrepreneurs of Victorian scholarship, the kind of man who if his energies had taken another turn might have covered a continent with railways’. The *Oxford Dictionary of National Biography* comments:

Furnivall...was a man of diverse causes and passionately held beliefs: vegetarianism, sculling, spelling reform, atheism (in his later years), socialism, egalitarianism, teetotalism, and above all the supreme importance of editing historic and literary texts that could shed light on the cultural and social life of England's past. He was an occasionally annoying and irascible figure, prone to carelessness in his scholarship, often outrageous in his personal behaviour, but he never wavered in his lifelong devotion to the cause of preserving and editing English written records.

The Society’s dictionary had a slow and convoluted genesis. Furnivall lacked the necessary organizational skills and self-discipline, and was at times worryingly casual in his methodology. But he was responsible for the idea of a completely new dictionary, the initial organization, and much of the preliminary research. He also recruited an army of mostly amateur scholars to record instances of usage on slips of paper that, in time, and with some frustrations, found their way into the NED work. [This is an example of his record of readers!]

Furnivall would no doubt have been incapable of bringing the work on the dictionary to fruition, but his contributions to its early development were significant. He continued to send quotations—and ebullient Furnivallian correspondence—to the NED until his death in 1910.

The Philological Society, realizing that the work was not progressing satisfactorily, began looking for a new Editor. They found him amongst their members—a 42-year-old Scot, one James Augustus Henry Murray. A lucky find indeed.

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3. The Murray years and completion

Murray was born in 1837, the eldest of four children in a family of limited means, in Denholm, a village in the Scottish borders, and spent the first 27 years of his life there. He displayed a precocious intelligence. He was said to have known his letters by 18 months; and by seven he was showing an interest in strange words, copying out Latin, Greek, and Chinese on scraps of paper. He attended village schools, showing a real passion for learning—he studied Latin, Greek, and French at school, Italian and German after hours.

At 14 he had to leave school, as the family could not afford any further education. Though books were hard to come by, he borrowed from his former teachers, and kept up with science and languages. At 17 he was appointed assistant schoolmaster in Hawick, a village four miles from home. At 20 he was appointed Head of the Hawick Academy, a private school for both sexes. He, as the only teacher, taught everything. At the same time he was learning more and more languages—'I at one time or another could read in a sort of way 25 or more languages' he later wrote—languages including Arabic, Khoi (including the clicks), Hindi, Anglo-Saxon, and Hungarian.

Now earning a salary, he began to accumulate a library that covered a broad range of human experience. Murray's interests extended into archaeology and philology—and also into the study of phonetics, an exact science which he could apply to the comparative study of languages. As he later said, scholars will 'sacrifice time & money & health & LIFE even, for knowledge, & find their reward in the knowledge itself and nothing more.' This passion was to be amply demonstrated during his years working on the NED—and Murray's breadth of knowledge was to prove a great advantage to him as a lexicographer.

But he was a well-rounded character too—high-spirited, fond of dancing and the company of pretty girls, a poet, an artist, a presenter of humorous recitations, a cyclist—and a man who made sand-monsters!

Murray's first wife, Maggie, whom he married in 1862, was consumptive, and their doctor advised them to move south to a warmer climate. In 1864, soon after losing their sickly baby daughter at the age of 7 months, Murray left his teaching post, and he and Maggie moved to London, where he worked in a bank. The following year Maggie died, aged 31.

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13 JAHM Sermons Job xxii. 21.
Murray remarried two years later, at 29, and he and his second wife Ada went on to have 11 children. He enthusiastically continued with his studies in comparative philology. In 1868 he was proposed as a member of the Philological Society, and gave three papers which were very well received, and later published. His reputation as a scholar was established, and he soon was a prominent member of the Society.

In 1870 Murray gratefully moved from the bank, back to teaching, at the rural Mill Hill School, near London, where his lessons were imaginative and lively. He continued his work on philology, studied for a degree at London University, was Assistant Examiner in English for the University, wrote text books, preached sermons, and was busier than ever; but he remembered the Mill Hill years as his happiest.

During the late 1870s Frederick Furnivall involved himself in negotiations with several publishers, attempting to get them to undertake publication of the Philological Society’s large new Dictionary. The Society was determined to have Murray as Editor, and during 1878 great pressure was applied to him. Without Murray’s consent, his name was mentioned to the Oxford University Press as the Dictionary’s future Editor. A very positive spin from Furnivall suggested that the Dictionary would be a profit-making project, and that the Society had done much more work than was actually the case. James reluctantly prepared specimen entries for the OUP—who agreed to undertake the publishing of the large Dictionary.

It was decided that three years’ preparatory work would be done before the Dictionary began publishing in sections (or fascicles, as they were known). Murray became part-time at Mill Hill School, and accepted a sacrificial cut in his income as a result of the OUP’s conservative conditions of service.

In March 1879 Murray received the first instalment of his salary as Editor of the NED, out of which he had to pay his assistants and buy materials—his salary was just £175, which proved over the years to be less than his expenditure on the Dictionary.

This was the start of a truly marathon task, which would last for the rest of his life. The Philological Society’s estimate of ten years and four volumes was in Murray’s words ‘utterly fallacious’: the Oxford University Press was in fact committing itself, unknowingly, to 54 years of support for the project, and the NED would finally consist of 12 volumes.

The work already done by the Society and its many volunteers was far from adequate. Slips recording quotations extracted from printed books were essential evidence, required for discovering a word’s meaning, dating its birth, and tracing changes of meaning across time. Slips had been accumulating; but there were huge gaps in coverage; some books had had words extracted for only certain letters; volunteers often never submitted slips for the books they’d been sent; reading for the 18th century, delegated to American volunteers, was disorganized; and little had
been done on modern writers. Unusual words were better illustrated than common ones. Furnivall’s home, where the slips were stored, had ‘packages...crammed onto every available shelf, balanced on the tops of furniture, dumped anywhere where they could be temporarily disposed of’.\(^\text{14}\)

Because Murray’s home, with its already large family, had no space for a study, he built a corrugated iron building in his garden at Mill Hill to contain the slips, naming it the ‘Scriptorium’. It was grey, lined with deal, and fitted with over 1,000 pigeonholes for the slips. These slips finally arrived from Furnivall in a dreadful state—there were 2.5 million of them, many stored in sacks (one with a dead rat in it, another with a live mouse nest), some in a baby’s bassinet, many crumbling with damp, or illegible. Whole letters were missing, including H (found in Florence) and Q. The slips for Pa were in Ireland, used to light fires, only a few surviving. Murray called the slips that he inherited ‘an incubus of rubbish and error’.\(^\text{15}\)

Having realized with a sinking heart that nowhere near enough primary material was available, Murray responded by issuing *An Appeal to the English-speaking and English-reading Public in Great Britain, America, and the British Colonies*, asking for 1,000 readers for the next three years. Some 1,200 readers volunteered, and contributed a million slips to those already in the Scriptorium.

Readers were asked to (and I quote) ‘make a quotation for every word that strikes you as rare, obsolete, old-fashioned, new, peculiar, or used in a particular way. Make as many quotations as you can for ordinary words especially when they are used significantly, and tend by the context to explain or suggest their own meaning.’ (These rules for readers still apply today, although having access to searchable databases means that editors can quickly and easily find exactly what they need.)

Slips began pouring in at a rate of up to 1,000 a day. As soon as he or she could read, each Murray child was conscripted to sort these into strict alphabetical order, so earning pocket money starting at one penny an hour.

Murray had hired assistants to sort words into different parts of speech and senses, and then arrange the quotations for each sense in chronological order. Sub-editors, many out-of-house and voluntary, then refined the senses further and pinned a draft definition to each sense, before arranging the senses chronologically to show the word’s development. The Editor then checked the work, improved definitions, made more subdivisions of senses if necessary, added a pronunciation and an etymology, and selected the best quotations for each sense. Each bundle of slips was numbered from 1—1000 before it went to the printers, in case the slips were dropped.

\(^{14}\) Murray (1977) p. 171

\(^{15}\) Murray (1977) p. 169.
The Dictionary was published in fascicles as work was completed. These were then bound into volumes of varying size and appearance by their purchasers.

The NED's basic methodology has scarcely changed in the modern work on the Dictionary. Work still passes through several stages. Editors still use quotations as the primary tools in decision-making when editing the Dictionary, and some quotations are still on paper. We even publish in sections, but now online rather than in fascicles. The two great differences are that the modern text is edited electronically rather than on paper, and that the bulk of our quotation evidence is now found in online databases.

Recruiting and managing the NED readers took a huge amount of time. Many were not very good at the job, resulting in great frustration for Murray. However, some were remarkable—such as the two Thompson sisters from Liverpool, who, between them, contributed over 15,000 quotations.

Perhaps one of the strangest volunteer readers was William Minor, who provided many thousands of quotations, in a minuscule hand, over many years, writing from Crowthorne in Berkshire. Murray invited him to a dictionary dinner, and to stay at his home, which Minor declined, instead inviting Murray to Crowthorne. Murray realized that Minor was an inmate in what was then called the Broadmoor Criminal Lunatic Asylum. He was a doctor who had been traumatized by experiences in the American Civil War, and was imprisoned after murdering a total stranger on a London street. He had seen Murray's Appeal for Readers, and had been allowed by the prison to collect a library in his cell to read for the NED.

While managing the readers, Murray was also writing 30–40 letters a day, to readers and consultants (the Post Office later provided him with his own postbox in Oxford). He was also showing increasing numbers of visitors round the Scriptorium, supervising the sub-editors, and still teaching part-time, while attempting to make the deadline for completing the entries for the letter A.

He was dealing with difficult methodological and technical issues such as pronunciation and how to reflect it, the structure of complex entries, typefaces to be used, how to treat coarse or sexual words, and so on. He was dreadfully overworked, underpaid, and depressed—burning the candle at both ends—and his health suffered. . . ‘I gave up my liberty to be the slave of the Dictionary! It never leaves me, it always weighs on me,’ he complained. He was dogged by the fear that the Dictionary would be abandoned, with a consequent loss to scholarship.

The question of what constituted the English language was a difficult one. Murray concluded, in his diagram of his 'Circle of the English Language', that English had a nucleus of common words which were unquestionably English; that these included both literary and colloquial words; and that as one moved further out from the centre,
along various paths, words had less and less claim to be included in an English dictionary. With hindsight, this rule of thumb could result in some embarrassing decisions: in the area of science, *Radium* was left out, seen as short-lived and not common enough; *Appendicitis* too was omitted, but became universally familiar when Edward VII’s coronation was postponed in 1902, owing to his appendix having to be removed. *African* was omitted, as it was a proper noun; but it was seen that this was a mistake when *American* was reached, and the editors realized that many compounds for both words needed to be covered. These omissions and many others were added in the Supplement of 1933.

The issue of space in the Dictionary, and therefore of cost, was a constant worry. Murray faced chiding from Furnivall because he was providing too little detail in entries\(^{16}\), and frequent scolding from the Delegates of the Oxford University Press because his entries were too long. Quotations had to be shortened, and many abbreviations used elsewhere, in order to save space. This is not as much of an issue for the modern OED editors: the online version has open boundaries, though the aim is to present an accurate digest of the word’s history.

The first part, or fascicle, of the *Dictionary*, A–ANT, due in 1882, was finally published on 29 January 1884. Murray’s task was in fact an impossible one: the original agreement was totally unrealistic. His fight to maintain the *NED*’s scholarly excellence was exhausting: the three issues of permitted space (or dictionary length), the time allowed for the task, and a real shortage of money were to cause continual and bitter conflict with the Delegates of the Press, who, after the publication of Part I, presented him not with congratulations, but with a document laying out numerous changes he should make to the Dictionary’s methodology, without any real understanding of the nature of the task. The Delegates continued to insist that two fascicles be produced each year despite Murray’s explanations that this was unachievable.

Finally a group of supporters at the University persuaded the Delegates to re-negotiate Murray’s contract terms, which, though still unrealistic, provided him with a better income with which to pay his staff and provide for his family.

In 1885 James Murray finally relinquished his post at Mill Hill School, and the Murray family moved to Oxford, to a large house at 78 Banbury Road. Because of neighbours’ objections to its unsightliness, a new and slightly larger Scriptorium, erected in the back garden, had to be sunk about three feet into the ground. It was poorly ventilated, and cold and damp in the winters (Murray sat with his feet in a box to avoid draughts): and the health record of the editors was not good.

The publication of Part I in 1884 had introduced Murray to Henry Bradley through two impressive critical articles on the NED that Bradley had written in the journal *The

\(^{16}\) Murray (1977) p. 192
Academy. Bradley was recruited by the Delegates to assist Murray from a distance, and was appointed as second part-time Editor in 1887, being responsible for his own work, and then moving to Oxford in 1896. But Bradley worked more slowly than Murray, and his health was poor. He was an excellent philologist, but not a practised lexicographer. The addition of Bradley had not speeded up the work as the Delegates expected, and Murray was despondent—but not surprised.

It was only in 1896 that Murray and the Delegates accepted an agreed pattern of production, with the quarterly publication of 64-page sections. This target was achievable for the Editors, and was sometimes surpassed: as a result, Murray became reconciled to the work, and happier.

In 1901 William Craigie became the third Editor after a four-year apprenticeship, and in 1914 the fourth editor, C.T. Onions, an assistant since 1895, joined the editorial team.

The three additional Editors and their staff were housed in the Old Ashmolean building, in the centre of Oxford, while Murray and his staff remained in the Scriptorium, one mile to the north. Messages were carried to and fro by bicycle or tram, as there was no telephone in the Murray home.

Appreciation of the Dictionary as a national asset had been growing, and in 1897 Queen Victoria agreed to have the whole work dedicated to her. Murray was recognized as Editor-in-Chief in 1898, with a slight improvement in his salary, and completion was at last being seen as a possibility. Murray was awarded a knighthood in 1908 for (quote) ‘a great work greatly conceived & greatly executed’, and he and Bradley were awarded the degrees of D.Litt. Honoris Causa by Oxford University in 1914. But the first World War meant that many of the Dictionary staff and printers left for the front, and work slowed. Amazingly, all the editors returned safely.

James Murray was now 78, and the continual pressure of work had taken its toll. He spent his last day in the Scriptorium on 10 July 1915, and died of heart failure on 26 July, after 36 years of toil and stress on behalf of the Dictionary, sadly not seeing the end of the work. Further setbacks were the death in 1923 of Henry Bradley, and the fact that the two remaining editors, Craigie and Onions, were not full time on the Dictionary (Onions worked on the Shorter Oxford English Dictionary from 1922, while Craigie was Professor of Anglo-Saxon at Oxford from 1916, and moved to Chicago University in 1925 to work on his own Dictionary of American English).

The final fascicle was published at the beginning of 1928, and the NED was complete—except that Craigie and Onions immediately began editing entries for the Supplement of 1933—words which they realized should have been included, or which had appeared after the relevant part of the alphabet had been published.
A Celebratory Dinner was held in Goldsmith’s Hall, London, attended by the Prime Minister, Stanley Baldwin. Because Goldsmith’s did not admit women, the Editors’ wives, and the lady editors and assistants were not included in the seating plan: they sat in the Gallery, and watched the gentlemen consuming a 9-course meal, with many toasts and speeches given and much wine drunk.

After the publication of the OED and the Supplement in 1933, everything closed down. The OUP sighed a profound sigh of relief that 54 years of paying for the Dictionary had at last come to an end.

4. **The Supplement of 1972–86**

But of course, English kept on developing and changing. By 1950 the OUP had realized that the OED would need to be updated, and that a second Supplement was needed. In 1957 a New Zealander, Robert Burchfield, an academic at St. Peter’s College recommended by Charles Onions, was appointed to head this project. He had to build a department from scratch, and collect evidence for a one-volume Supplement—which in fact turned out to be four volumes, produced over the next 29 years. The first volume, A–G, was published in 1972, and the last, Se–Z, appeared in 1986, the year of Burchfield’s retirement.

One of Burchfield’s legacies was the increased coverage of international English, which his New Zealand origins made him especially aware of. He also added to the dictionary the four-letter words that the earlier editors had not been able to include. He was occasionally confronted with requests (even death threats) suggesting that he omit some sensitive words from the OED, but he refused to allow the content of the dictionary to be censored. Like Murray, Trench, et al., he saw the Dictionary as descriptive, not prescriptive.\(^{17}\)

The OED now consisted of two alphabetical sequences—the first edition of 1884–1928, and the four-volume Supplement of 1933 and 1972-87. The two-volume Compact OED had been published in 1971, shrinking 9 original pages of the First Edition onto each page, with a magnifying glass provided, making the Dictionary affordable especially to students. The Press now recognized that the OED, its flagship dictionary, needed work. It could not continue to accumulate additional alphabetical sequences; and, most importantly, it needed modernizing and revising.

The Supplement project had collected huge files of quotation slips, a specialist library, and a skilled team of lexicographers, which could be moved over onto OED revision and drafting work. The Dictionary Department was therefore asked to study

\(^{17}\) Oxford DNB Online
the feasibility of a revision project and estimate the person-years required for the task.\textsuperscript{18}


Digitization was the first step—an enormous and very complex challenge. How do you take a multi-volume, century-old, print-based reference work and turn it into a single machine-readable resource? Well, by spending $13.5 million over five years in a highly adventurous computerization project.

Three experienced partners were found. ICC, a subsidiary of Reed International, would convert the text to machine-readable form; IBM UK donated computer equipment and staff to form a nucleus of system designers based at OUP; and the University of Waterloo, in Canada, were given full access to the digitized text for research into the electronic handling of large texts, in return for giving the software developed during this research to the OUP. The project was officially launched at the Royal Society in May 1984, with OUP taking on the central managing role.

Bespoke computer systems were built for both pre-processing the text and editing it in electronic form; text was marked up in the (then) novel SGML encoding scheme; the pages of the old edition and the \textit{Supplement} were typed again by 120 keyboarders; and more than 50 proof-readers checked the results of their work.

The automated merging of the texts began in September 1986. In Oxford the Co-Editors John Simpson and Edmund Weiner, with a core group of lexicographers, reviewed, corrected, and edited this new electronic dictionary over a period of 18 months, as well as adding 5,000 new words and senses. In all, the project team succeeded in accomplishing around 85 per cent of its work by the automated merging, the remaining 15 per cent requiring the critical eye of the editors.

Text for editing was displayed indented according to structural elements, and with these in different colours. It should be remembered that computing was relatively primitive at this time—a mainframe was used, the large text was split into 40 tables, memory and storage space were limited, and there were no windows.

The culmination of this mammoth task was the setting in type and subsequent printing of the \textit{Oxford English Dictionary}, Second Edition. In March 1989 this was published on time, in 20 volumes consisting of 21,730 pages and 59 million words of text, to great acclaim.


In 1992 a CD-ROM edition of the work was published, and the huge work taking up over a metre of shelf space and weighing 62.6 kilograms was reduced to a slim, shiny disk weighing just a few ounces.

5. Root and branch revision—OED3 and OED Online

In the early 1990s work began at OUP on a suite of sophisticated editing software to enable the efficient revision of the OED. At the same time principles and policies were established with the help of an Advisory Board of language specialists. Each entry was to be revised and updated from scratch, using the new resources and scholarship which were available. The editorial team was headed by John Simpson and Edmund Weiner, the co-editors of the 1989 edition.

Revision work began in 1993, starting with the letter M. This may seem odd, but it was a point in the Dictionary by which the original editors were confident and had established a stable style, which would assist the revision editors greatly. Initially, work was slow, as editors settled into the methodology, sometimes having to retrace their steps.

Revision is like a conveyor belt, and some have called the OED project a “word factory”. Editors work in pairs, checking each other’s completed entries, and sending any queries to specialist consultants, before passing the range on for signing off by a senior revision editor. The range then goes to the etymologists, who add the complex etymologies and check the entry to make sure that the word history is shown accurately. The entries move on to the bibliographers, who check the accuracy of the thousands of quotations used, and follow up any problems. The last stage is finalizing by the Chief Editor and Deputy Chief Editor, after which the electronic Dictionary, with its newly revised material, is transferred to the United States for publication online.

Revision editors feel great respect for the scholarship of their Victorian predecessors, and it takes courage to change an entry drafted by James Murray! But much needs to be done after the passage of over 130 years since the start of the NED. For instance:

Headword spelling needs modernizing in some cases.

Pronunciations need modernizing and the addition of American English pronunciations--and those of other countries where relevant. The International Phonetic Alphabet replaced Murray's system of symbols in the 1989 edition.

The list of variant spelling forms is made more comprehensive and clearly ordered by century to enable searches to find the word online in whatever form it is found, and show the history of the word's form.
**Etymologies** are greatly expanded, to give more information on donor words, especially those forms and meanings that can be shown to have had a direct influence on the development of words within English. Information is given on unusual examples of word-formation, and general patterns are described in detail at entries for affixes and combining forms. Encyclopaedic information is given for terms named for people or places, and to explain the particular circumstances in which words have developed semantically. To aid understanding by a wide variety of users, almost no words are abbreviated.

**Definitions** are updated by using language familiar to the modern reader, removing terminology that jars, especially that relating to race, class, gender, disability which is now offensive, and making definitions gender-neutral. Dated geographical references (e.g. Ceylon, Transvaal, USSR) have been changed. Sometimes research leads to unexpected results!

**Quotations** are all evaluated. The discovery of earlier quotations for over 60% of the entries proves that many words have been in use far longer than we thought; and recent quotations bring the word through into modern times. The Bibliography Group is responsible for checking all the 3 million quotations in the OED, ensuring that the best edition is used, and that the quotation text is absolutely accurate. To assist with this, we have teams of library researchers in the main UK and USA libraries who can chase down a rare book, check a quotation’s accuracy, or find an antedating.

We may work in a modern office with computers, but the editors use very much the same processes as James Murray and his team. One significant difference is that modern editors have enormous searchable databases to use where quotation evidence can be found very fast, and in great quantities. The electronic OED itself provides a large searchable database of quotations, and access to the numerous online collections of literature from the 15th century onwards, archives of world newspapers, online journals in all the disciplines, and the amazing Google books, means that there is almost too much evidence available.

So that is revision: but we also have a process called New Words, which adds both neologisms and the many, many new senses which have developed for old words. Because drafting new material is so different from revising old text, we have a separate group for this task. We also have a separate group for drafting and revising science words and senses.

In March 2000 the *OED Online* was launched, and since then new batches of revised text have been published quarterly. Having started at M, we worked alphabetically to the end of R before changing to a rather more complex but very satisfying way of working. We analysed which entries people were accessing most often, and which of the larger OED entries needed revision most—which had the most new senses added on at the end for later inclusion. So for a few years we have
been darting about all over the alphabet, selecting clusters of words around core concepts, such as *Life, Love, Sex, Language, Heaven, Earth, Green, Walk*, and so on. Each online entry now has an indication of whether or not it has been revised—of whether it is OED2 or OED3.

In 2005 we installed a new suite of custom-built web-based editorial software to replace one which was over 10 years old and starting to show its age. The software is called *Pasadena*, which stands for the "Perfect All-Singing All-Dancing Editorial and Notation Application". Pasadena’s five components communicate with each other, which means that we can search the OED and in-house databases and copy quotations into our editing software without having to rekey them. We can attach a query to a consultant, to the section of an entry we need help with, and receive the answer back in the entry, with an email notification that the answer is waiting. We can track progress as we work, by signing off elements in each entry. As we add quotations, a bibliography is created in the background. And we can work online at a distance: we have had people working on our Oxford database in New York, Greece, and New Zealand. Digitization, and the internet, would have stunned the OED1 editors.

Users of *OED Online* can access additional information by linking from an entry to the *Oxford Historical Thesaurus*, to the *Dictionary of Old English* or Middle English Dictionary, to the word in a current dictionary of English, or, by clicking on book titles, to entries in the *Oxford Dictionary of National Biography*.

The OED has now spawned quite an industry: an Oxford-based website dedicated to the study of the OED, an American site researching science-fiction terms, a range of popular books based on the Dictionary’s history, and academic works analysing the text and its history in various ways. And it appears that this will continue.

7. **The Future?**

The OED has often changed its method of working since 1993, the start of the revision project, reacting both to the needs of readers and to the increasing power of the internet. This will continue. The online site, OED.com, has been developed and changed to add new features for readers, offering a network of tools to offer a richer research environment.

There are several important targets for the future of this ongoing project:

- Bringing the user closer to the OED
  - By responding to his or her priorities: moving away from alphabetical revision to a core vocabulary project, focusing on the key 225,000
meanings in modern English, discovered by frequency in the language, and usage data on the website.

- By indicating clearly the editorial status of entries, so users know whether an entry is revised or unrevised.
- By working on special projects with particular application and interest, for example those words where Shakespeare is recorded as having been the first user.
- By looking beyond individual words and entries to give more information about general principles and trends in language, for example by means of metadata changes, such as marking up all current words, so that the unrevised words don’t appear to be obsolete in timelines.
- By engaging productively with users who have relevant knowledge and skills to offer, e.g. by setting up “special interest” websites where contributions can be made (such as the science fiction site which already exists).

- Developing language technology for the OED
  - By aligning OED underlying metadata to other OUP dictionaries, so that words not in the OED will be found when searching.
  - By enabling clickable links from words on other OUP sites to their entries in the OED.
  - By moving the OED into all places where information on the history of language is needed, to enable broader trends to be seen: e.g. (linking with the Historical Thesaurus): What is the language of cooking in the 17th century?

- Extending the OED’s reach
  - By going beyond the traditional markets into new areas such as China and India.
  - By making the text more accessible, e.g. by extending abbreviations, making the terminology and labelling clearer, and changing the layout of the website to make navigation easier.
  - By encouraging schools to use the OED e.g. when studying Shakespeare, Dickens, or even 20th century authors. School study notes on the website are being added to.
The OED, with a staff of about 80, is the largest humanities research project in the world. The OUP is the sole funder of the project, which costs about £5m a year. Investing in the OED is a priority for the OUP, and the Dictionary has an exciting future.