Painting the Forth Bridge: Coping with Obsolescence in a Monolingual English Dictionary

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Abstract
Theoretical approaches to the dictionary-making process often assume that the lexicographer is working with a *tabula rasa*. In practice, most of the dictionaries that reach the bookshops have been created by updating an existing text, often one that was originally compiled several decades previously and which contains information that may therefore no longer be accurate. One of the main tasks confronting the editors of a dictionary in such cases is to identify information in the existing text that has become obsolete. This paper draws on recent experience of updating *The Chambers Dictionary* (which was originally published in 1901) in looking at the problem of obsolescence in dictionary text. It seeks to identify some of the principal causes of obsolescence and suggests some approaches that lexicographers can use when updating dictionaries.

1 Introduction

The Forth Rail Bridge spans the River Forth between the towns of North Queensferry and South Queensferry, about ten miles (16 kilometres) to the west of the city of Edinburgh. It is 1.5 miles (2.4 kilometres) in length, 340 feet (104 metres) high, and was built using 55,000 tons of steel and 8,000,000 rivets. Indeed, such is the vast scale and exposed position of the bridge that it needs continuous painting: workers start at one end of the bridge and continue until they get to the far side, but by the time they have completed their task, it is already time to start again at the beginning[1].

The task of painting the bridge provides a common figure of speech: any task that needs to be started again as soon as you have finished it may be likened to painting the Forth Bridge. You will come across this figure speech used in relation to tasks as diverse as arranging graduation ceremonies, removing algae from the glass windows of an aquarium, and – as should come as no surprise – maintaining the quality of dictionaries[2].

The Forth Bridge was completed in 1890. Eleven years later and ten miles to the east, another monument to Scottish industry and ingenuity was completed in the form of *Chambers's Twentieth Century Dictionary*. This book set out to provide definitions of all of the words that a user might wish to look up in a format that could be easily carried about and would be affordable to the man in the street.

Chambers's Twentieth Century Dictionary soon became an established bestseller. It had two main things going for it: its vast coverage of vocabulary established it as the bible of crossword setters and word-game enthusiasts, and it had an unexpected sense of humour

which surprised and delighted its users. It was regularly reprinted with supplements of new words, and revised editions have followed in 1952, 1959, 1972, 1983, 1988[3], 1993 (when it was renamed *The Chambers Dictionary*), 1998 and most recently in 2003[4].

Although successive editors of the dictionary have taken the opportunity to make certain changes in the way that information is presented and to incorporate neologisms, revisions and corrections into the text, there is a definite continuity between the earliest version of the dictionary and its current incarnation. The basic structure of the dictionary remains intact and many definitions are unchanged from the 1901 edition.

This continuity is due in part to the publishers' perception of the dictionary's readership. Because of *Chambers*' status as the dictionary *par excellence* for crossword and word-game enthusiasts, its users favour stability. They do not want a brand new dictionary that makes use of the latest lexicological theories but excludes many of the old-fashioned words they have become accustomed to using in their word games. Rather, they like to replace their worn-out edition every five or ten years with a new book that is familiar, but includes the latest new words. This approach has maintained *Chambers*' position, and – even after a hundred years – it remains one of the most popular English monolingual dictionaries.

2 Obsolescence in Monolingual Dictionaries

The lexicographers who set about producing a new edition of this sort of book may be compared with the painters on the Forth Bridge: they are engaged in a constant and unending battle to keep up with the changes brought about by the action of time. In the lexicographers' case, the task is to ensure that the information contained within the covers remains accurate and relevant.

Whenever new editions of dictionaries are published, attention is usually focussed on the new words that have been included. This may give the public the misleading impression that a new edition of a dictionary consists merely of the old edition of the dictionary with some words added (and possibly other words tossed out to make room for the new), with the implication that recording neologisms is sufficient to keep a dictionary up to date.

If the lexicographer's job consisted merely of adding new words and removing obsolete words, the dictionary-making process would be relatively simple. But of course this is not the case. Lexicographers also have to address the question of whether the information included in earlier editions of a dictionary remains appropriate and accurate when the new edition is published[5].

2.1 Sources of Obsolescence

Dictionary entries often become out of date because linguistic custom changes: words become understood in different meanings; fashions in pronunciation change; words that were once considered as informal or slang words can become accepted as standard; other words that were once regarded as standard can become formal or old-fashioned. Monitoring such linguistic change is part of the stuff of lexicography.

Entries also become out of date because the way we understand the world changes. For example, the first edition of *Chambers's Twentieth Century Dictionary* defined an atom as 'a particle of matter so small that it cannot be cut or divided'. This definition was perfectly acceptable in 1901, when the atomist theory of matter held sway, but it needed to

be changed when the atom was split. The same edition defined a dollar as 'a silver coin ... worth about 4s 2d sterling'. Again, this definition needed to be changed when paper dollar bills came into circulation – not to mention fluctuations in the rate of exchange. These are just a couple of examples of how developments in science, technology and human institutions are likely to render dictionary definitions obsolete over a period of time.

2.2 Checking for Obsolescence

The process of checking for entries that may have become obsolete usually takes one of two forms. It may be achieved by a sequential read of the text, checking each entry in turn for material that needs to be updated. This process is naturally extremely time-consuming. Thus it is often deemed more efficient to target specific topics for revision, focussing on areas of language that are considered especially prone to change.

It is also customary to maintain databases containing proposed emendations. These may arise from readers' letters or from observations made by editors in the course of their work. While such databases may be useful, they are not systematic, and they provide no guarantee of catching all of the entries that have become obsolete.

3 Updating *The Chambers Dictionary*

Updating *The Chambers Dictionary* for the 2003 edition presented some particular challenges with regard to the problem of obsolescence.

The long history of the book meant that, although the text had been subject to regular revision, a substantial portion of it originated from thirty, fifty or in some cases a hundred years ago. Furthermore, the most recent revisions had not attempted a complete overhaul of the text. Thus the problem of obsolescence, which all dictionaries have to confront, was likely to be accentuated.

The scope of the book also presented a challenge. Part of the distinctive appeal of *The Chambers Dictionary* lies in its wide coverage of rare, historical and unusual words. The people preparing the new edition of the dictionary may have been professional lexicographers, but there are limits to the knowledge even of these people. It was clear that editors would not always be in a position to make an immediate judgement about whether the definition offered by the dictionary was accurate or not.

The updating of the text for the 2003 edition was carried out on several fronts. It made use of notes collected by editors who used the book on a regular basis; it drew on the suggestions provided by hundreds of correspondents, whose zeal for pointing out errors and infelicities in the existing text sometimes bordered on the fanatical; it also involved targeting specific fields, extracting all the relevant entries and submitting these to experts to check; finally, general editors looked at the text on a line-by-line basis so that no entry should pass unchecked.

As a result of this process, thousands of existing entries were modified in some way to bring the text up to date for a modern readership. These changes touched on every aspect of the dictionary, including spelling forms, pronunciations, definitions, ordering of senses and etymology.

In this paper, however, I shall mainly restrict myself to reporting and commenting on changes that were made to the definitions of words. This reflects my experience that

definitions provided some of the most remarkable and unpredictable examples of how the information in the text of a dictionary can become out of date.

4 Factual Obsolescence

Many of the obsolete definitions that needed to be updated for the 2003 edition of *The Chambers Dictionary* arose from predictable sources. Such definitions could probably be detected through checks devised by any thoughtful editor whose budget stretched to only a cursory revision of the text. But other obsolete definitions were less predictable, and might well have escaped our attention had we not been checking the text on a line-by-line basis. I shall begin by briefly noting some of the more obvious sources of factual obsolescence, and then move on to look at some more unpredictable cases.

4.1 Some Predictable Causes of Factual Obsolescence

Most dictionary-makers will be familiar with the things that need to be addressed when updating dictionary text: organizations and places may have changed their names since the previous edition was published; geopolitical changes may mean that references to certain countries need to be changed because the country has fragmented or been unified with another; legislation can be passed that alters the legal status of certain items or institutions; the rules or scoring systems of sports and games may have been altered; pharmaceuticals may no longer be in use, or if they remain in use, they may now be used to treat different disorders; the taxonomic classification of animals and plants may have changed; currencies may have gone out of circulation; biographical details of people mentioned in the text may alter; and so on.

The more obvious of these changes – such as the renaming of countries – are unlikely to escape the attention of lexicographers, although more technical points, such as alterations in scientific terminology, are likely to require a specific check before changes are noted.

Three types of entry call for particular comment. Firstly, entries for currencies often needed to be updated. In any period of five years, there are likely to be some changes in the units of currency used around the world, but the introduction of the euro in 2002 affected an unusually large number of entries. Furthermore, it should be remarked that the changes to the dictionary that this occasioned were not always straightforward.

For example, the entry for the word *centimo* now had to indicate that the unit remains in use in certain countries, but is no longer used – at least as far as English speakers are concerned – in Spain (although *centimo* continues to be used in Spanish to refer to a hundredth of a euro). A slightly different situation arose in updating the entry for *escudo*. On this occasion, the revision did not merely entail saying that the unit was no longer in use in Portugal, but required us to specify in which country the unit remained in use.

	1998 edition	2003 edition
centimo	a coin and monetary unit of Spain, Venezuela, Paraguay and Costa Rica, one hundredth of the standard unit of currency	a coin and monetary unit of Venezuela, Paraguay and Costa Rica, also formerly used in Spain, one hundredth of the standard unit of currency
escudo	the Portuguese unit of currency; a coin representing this; a coin or currency unit of various other countries	a former unit of currency in Portugal, replaced by the euro; a coin representing this; the standard monetary unit of Cape Verde (100 centavos)

Table 1: Updated definitions of *centimo* and *escudo*

Secondly, many entries relating to institutions and organizations needed to be updated. *The Chambers Dictionary* contains many entries explaining the abbreviations of British trade unions, government departments and non-governmental organizations. We found that there was a very high incidence of such bodies being 'rebadged' or amalgamated. For example, at the time of the 1998 edition, the British government department that dealt with transport was the Department of Environment, Transport and the Regions. The dictionary contained an explanation of its abbreviation *DETR*. However, in 2001, the DETR was abolished and transport came under the new Department for Transport, Local Government and the Regions, which was itself broken up in 2002 into the Department for Transport and the Office of the Deputy Prime Minister. When updating the entry for *DETR*, a lexicographer would ideally like to provide a cross-reference to the current name for the department. However, in this case – and various others – the complicated nature of the reorganizations meant that it was not possible to say that an organization was 'now called X' or 'now replaced by X'.

	1998 edition	2003 edition
DETR	Department of the Environment, Transport, and the Regions	(until 2001) Department of the Environment, Transport, and the Regions
DfT	*no entry*	Department for Transport
DTLR	*no entry*	Department for Transport, Local Government and the Regions (now replaced by **DfT** and **ODPM**)
ODPM	*no entry*	Office of the Deputy Prime Minister

Table 2: Alterations to accommodate reorganization of DETR

Thirdly, we were aware of the need to update biographical information. In this respect *Chambers* is less exposed to obsolescence than dictionaries such as the *Encarta World English Dictionary* and the *Oxford Dictionary of English* that include biographical entries. However, *Chambers* contains a significant amount of biographical information in its

etymologies. The presence of such information meant that we had to make a last-minute check to see whether any person mentioned as being alive had in fact died. I am rather ashamed to say that there was a certain amount of elation when we were able to change the dates of an eminent cartographer from 'born 1916' to '1916–2002'.

4.2 Some Less Predictable Causes of Factual Obsolescence

Where obsolescence arises from predictable sources, the dictionary can be kept up to date by judicious checking and by monitoring current affairs. Such monitoring allows editors to note, for example, when legal rulings or official announcements require entries to be altered. It is more difficult to keep track of items that do not become obsolete overnight by formal diktat, but gradually drift out of use.

In preparing the 2003 edition of the dictionary, we came across a number of entries for items that are no longer in current use but were described in the 1998 edition as if they still were used. For example, there was a sense of *tricycle* defined as 'a light three-wheeled car for the use of a disabled person' and *punch-card* was defined as 'a card with perforations representing data, used in the operation of computers'.

In fact, advances in technology have turned both the invalid tricycle and the punch-card into museum pieces. It is now illegal to drive an invalid tricycle on British roads[6], but even before they were formally banned, it was extremely unusual to encounter one. The use of punch-cards in computing is not, so far as I have been able to establish, officially prohibited. However, no modern computer system would conceivably use them, as they have been superseded by vastly more efficient devices.

In both cases, the item disappeared gradually from everyday use, and so its eventual extinction might well have gone unrecorded in the dictionary if the editors were relying on standard monitoring and checking procedures. Indeed the presence of such definitions in the 1998 edition suggests that the more cursory revision of the text performed for that edition was not sufficient to identify this sort of obsolete material.

	1998 edition	**2003 edition**
tricycle	a light three-wheeled car for the use of a disabled person	a light three-wheeled car formerly used by disabled people
punch-card	a card with perforations representing data, used in the operation of computers	a card with perforations representing data, formerly used in the operation of computers

Table 3: Updated definitions of *tricycle* and *punch-card*

But if some terms have dwindled into mere historical footnotes, others have gained a wider application than their original definition suggests. The treatment of *ball boy* in the 1998 edition suggests that the term is restricted to tennis, but in fact ball boys and ball girls are no longer employed solely in the context of tennis and are now encountered in football, cricket and other sports. Another example of a definition that had become unnecessarily restrictive was that of baseball's *World Series* as 'a set of championship matches played annually in the US'. Although this event was originally restricted to teams from the United

States, teams from Montreal and Toronto now also play in the major leagues, and in 1992 and 1993 World Series games were played in Canada[7].

These examples illustrate how unforeseen changes in circumstances can render definitions inaccurate. It is also worth noting that the cause of obsolescence in both cases is the inclusion in the original definition of specific detail that is not logically inherent in the term being defined: it is possible to conceive of ball boys and ball girls in games other than tennis; it is possible to conceive of baseball matches being played outside the United States.

	1998 edition	**2003 edition**
ball boy or **ball girl**	(*tennis*) a boy or girl who collects balls that are out of play, supplies balls to the server, etc	(*sport*) a boy or girl who collects balls that are out of play, supplies balls to the players, etc
World Series	(*baseball*) a set of championship matches played annually in the US	(*baseball*) a set of championship matches played annually between the winners of the major leagues

Table 4: Updated definitions of *ball boy* and *World Series*

5 Obsolescence of Defining Language

So far, I have been concerned with entries that needed to be updated because they were no longer factually correct. But definitions can also become obsolete in other ways.

Another reason for updating definitions was that the language used in the original definition had fallen out of common use and now obscured the meaning. Two examples of this were the definitions for the words *logodaedalus* and *Abderian*. We felt it was no longer helpful to define *logodaedalus* as 'an artificer in words', as the phrase 'artificer in' is not in common use. Similarly, the definition of *Abderian* as 'of Abdera, ... the Gotham of the ancients' is less than informative for a generation of readers who may not instantly recognize Gotham as a byword for stupidity[8].

	1998 edition	**2003 edition**
logodaedalus	an artificer in words	someone skilled in the manipulative use of words
Abderian	of Abdera, a town in Thrace, the Gotham of the ancients	of Abdera, a town in Thrace, notorious for the stupidity of its inhabitants

Table 5: Updated definitions of *logodaedalus* and *Abderian*

Although such old-fashioned defining language was by no means typical of the 1998 text, there were enough examples of it to warrant editors paying close attention to the style of the definitions. The persistence of some old-fashioned language in the dictionary suggested that previous editors had adopted a conservative approach when revising the text and had sometimes allowed archaic sounding definitions to remain out of reverence for the published text.

6 Cultural Obsolescence

Yet another reason for updating entries was the presence of what I would term 'cultural obsolescence'. The entries affected by this were not necessarily factually wrong or linguistically old-fashioned, but they enshrined outmoded cultural values.

One cause of this was the assumption by earlier editors that readers would have a familiarity with certain texts, including the Bible, the Greek and Latin classics and many works of English literature that are no longer universally read and known. For example, one sense of *sop* included a reference to the *Aeneid* which seems to assume the reader will know that the *Aeneid* is a poem by Virgil; similarly, in the entry for *behemoth* there is a reference to *Job* that assumes the reader knows that *Job* is a book of the Old Testament. The dictionary's original readers would almost certainly have understood these references. However, I am less confident that modern-day readers will be familiar with classical literature; indeed, they may not even be familiar with the contents of the Bible. It therefore seemed appropriate to give readers more information about these references.

	1998 edition	**2003 edition**
sop	a propitiatory gift or concession (from the drugged sop the Sibyl gave to Cerberus to gain passage for Aeneas to Hades, Aeneid 6.420)	a propitiatory gift or concession (from the drugged sop the Sibyl gave to Cerberus to gain passage for Aeneas to Hades, Virgil, Aeneid 6.420)
behemoth	an animal described in Job 40.15, usually taken to be the hippopotamus	an animal described in the Bible (Job 40.15), usually taken to be the hippopotamus

Table 6: Updated definitions of *sop* and *behemoth*

For the same reason, some of the labels specifying authors in whose work a word is found were expanded. The labels *Arnold* and *Holmes* were felt be insufficiently transparent for a modern readership and so they were replaced by the fuller *Matthew Arnold* and *Oliver Wendell Holmes*.

Changing cultural attitudes were also behind the reworking of some entries for non-standard variants. An extreme example of the excessively prescriptive treatment of non-standard terms was the definition of *outdacious* as 'an illiterate perversion of *audacious*'. We felt this was out of line with modern views on linguistic diversity.

	1998 edition	**2003 edition**
outdacious	an illiterate perversion of **audacious**	a non-standard corruption of **audacious**

Table 7: Updated definition of *outdacious*

Another type of cultural obsolescence occurs when a definition attempts to explain a word by referring to something that is no longer familiar to the majority of dictionary users. The word *daric* was defined in the 1998 edition as 'an old gold or silver Persian coin larger

than an English sovereign named after Darius I of Persia'. This definition presupposes a familiarity with the English sovereign which is not possessed by many current dictionary users, since the sovereign went out of circulation in 1914.

	1998 edition	2003 edition
daric	an old gold or silver Persian coin larger than an English sovereign named after Darius I of Persia	an old gold or silver Persian coin named after Darius I of Persia

Table 8: Updated definition of *daric*

Finally, a number of definitions were reworded because they involved assumptions about society that are now generally regarded as outdated. As the values of a society change, so definitions relating to subjects such as gender roles and the composition of the family are susceptible to obsolescence. Thus the definition of the term *quota immigrant* was updated as it referred to 'the child or wife of a resident citizen' when 'child or spouse' would be more appropriate. Other definitions, such as the one for *eternal triangle*, had to be reworded because they did not acknowledge the possibility of same-sex relationships.

	1998 edition	2003 edition
quota immigrant	an immigrant (to the US) admitted as one of the yearly quota allowed to his or her country of origin, as opposed to a non-quota immigrant (eg as child or wife of a resident citizen)	an immigrant (to the US) admitted as one of the yearly quota allowed to his or her country of origin, as opposed to a non-quota immigrant (eg as child or spouse of a resident citizen)
eternal triangle	a sexual relationship, full of tension and conflict, between two men and a woman or two women and a man	a sexual relationship, full of tension and conflict, involving three people, *usu* a married couple and a third party

Table 9: Updated definitions of *quota immigrant* and *eternal triangle*

7 Strategies for Coping with Obsolescence

In addressing the subject of obsolescence, it is appropriate that I should not only record the problems that were encountered in the revision of *The Chambers Dictionary*, but also make an attempt to draw some general conclusions about managing this problem.

As far as publishers are concerned, I would argue that the problem of obsolescence should be taken seriously when updated editions of established – by which I mean 'old' – dictionaries are produced. Many of the entries that needed to be updated in the 2003 edition of *Chambers* were already out of date at the time of earlier editions. However, the cursory nature of previous revisions had allowed obsolete material to remain in the text. It may not be financially attractive to devote resources to revising the text thoroughly at every new

edition, but dictionaries should not be allowed to go on for too many editions receiving only cosmetic treatment.

If we accept that it is impractical to engage in a line-by-line revision for every new edition, we must work out strategies for updating the dictionary without scrutinizing the entire text. Attempts can be made to devise effective searches for potentially obsolete information and to implement these at each revision as a matter of routine. The dictionary text can be coded in such a way that entries containing potentially obsolete information can be readily extracted and checked. Databases recording necessary updates should be maintained. Furthermore, dictionary teams can also collaborate with colleagues engaged in compiling and updating other types of reference book so that geopolitical, legal, biographical and other data is shared efficiently.

As far as dictionary compilers are concerned, I would suggest that certain steps can be taken to avoid exposure to some of the problems of obsolescence. Care should be taken about including information that is likely to become out of date by the time that future editions are published, especially when the information is not essential to the understanding of a word.

For example, the lexicographer who defined *whooping crane* as 'an American crane ... on the brink of extinction' was leaving a time bomb in the dictionary – each subsequent editor was left to check whether the bird had recovered its numbers or had been wiped out completely[9]. That is not to say that such material should never be included in dictionaries. But, if it is included, it would be advisable to develop a method of coding it in such a way that it can be easily retrieved by future editors.

	1998 edition	**2003 edition**
whooping crane	an American crane (*Grus americana*), on the brink of extinction	an American crane (*Grus americana*)

Table 10: Updated definition of *whooping crane*

Finally, some words for the editors who are given the task of updating a dictionary. Be aware of the history of the dictionary, when the text was compiled and how thoroughly it has been revised. Think about what types of entry are susceptible to obsolescence and look out for these. Furthermore, do not treat the existing text with excessive reverence: the people who compiled it were living in a different world from the one you are attempting to describe.

8 Conclusion

Recognition of the problem of obsolescence and the application of smarter working methods can make the task of updating dictionaries easier. However, I think we can be confident that as long as human institutions develop, as long as long as scientists increase our understanding of the universe, and as long as new technologies render old technologies obsolete, there will always be work for the lexicographer. The task of keeping dictionaries up to date – just like the painting of the Forth Bridge – will never be finished.

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Endnotes

1. For more detailed information about the bridge, see Paxton (1990). In fact, the collapse of a maintenance contract recently meant that work on the bridge was temporarily halted, necessitating an expensive refurbishment programme.
2. See, for example, the press release concerning the revision of the University of Wales's *A Dictionary of the Welsh Language* at http://www.wales.ac.uk/newpages/external/e961.asp.
3. The 1988 edition was published under the title *Chambers English Dictionary*.
4. On the history of *The Chambers Dictionary* and its tradition of humorous definitions, see Brookes et al. (2001).
5. Heid et al. (2000) acknowledge that updates of existing dictionaries often take up more of a lexicographers time than writing dictionaries from scratch, but do not touch on the problem of obsolescence.
6. See http://www.virtualgaz.co.uk/invacarpage.htm.
7. The Toronto Blue Jays won the World Series in 1992 and 1993. There has recently been discussion about locating a major league baseball franchise in Latin America.
8. The inhabitants of Gotham in the English county of Nottinghamshire are supposed to have feigned madness to avoid being required to entertain King John in the early thirteenth century. Thus the name of the village became a byword for stupidity. The name was subsequently applied to New York by Washington Irving.
9. The world's whooping crane population has increased from as low as 20 around 1941 to an estimated 435 in February 2004. See http://www.whoopingcrane.com.

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