

International English Spelling: how systematic repair is possible

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SUMMARY¹

This paper sets out a way to remove the present unpredictability of present English spelling that combines the advantages of minimal change in the appearance of present spelling, systematization by principles, and a phonemic spelling for learners. It keeps accessible our heritage of print, past and present, while matching spelling more closely to the needs and abilities of readers and writers, learners and English language learners, using both visual and auditory reading processes, and improving visible relationships of English and international vocabulary.

This combination of advantages has been claimed to be impossible, but psychological and linguistic research and technological advances now make it feasible when accepted assumptions are challenged.

The first of seven research-based principles is unexpected - to retain the irregular spellings of around thirty of the hundred most common words which make up about half of everyday text. For the rest, orthography follows a conventionalized standard; the basic alphabetic principle is used for initial learning spelling and dictionary keys, and is progressively modified into adult text modified by morphemic principles; spelling of homophones is only differentiated when essential; there are indicators for irregular stress; and some transitional features include personal choice for the spelling of names. The sound-symbol relationships suggested for investigation include consistent spelling patterns for final vowels, grave accents to distinguish long and short vowels when needed, mostly for beginners, different spellings for /s/ in word and case endings, and, for transitional reading, eight one-way

alternative vowel spellings and three consonant alternatives. Rationale is given at each point.

Investigation is called for, with formal and informal experiments, and the establishment of an official International English Spelling Commission to oversee, monitor, and implement whatever improvements these or other investigations indicate. Methods of pilot testing are briefly discussed.

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INTRODUCTION

Most modern languages have implemented major or minor reforms of their writing systems in the past 150 years. English spelling alone has not been improved. Yet orthography requires the same human-engineering research and development as the rest of modern communications technology, since it is an essential

¹ Occasionally some spellings of words may drop surplus letters or rationalise the spelling of /f/. Readers can observe their initial responses and, indeed, whether they notice all modifications.

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tool (Yule, 1986). The challenge is to retain the advantages of present spelling but take out its difficulties, rather than more sweeping change. This policy has many practical advantages in retaining backwards compatibility and costs of implementation. Present spelling has useful features that suit the English language and its users, and that are overlooked by proposers of new systems or plain phonemics. There is a basic underlying system that can be made consistent by applying principles rather than ad hoc series of rules, which has been another approach. The assumptions against improving English spelling can be turned into ways to improve it. For example, Noam Chomsky's work on deep phonology (Chomsky & Halle, 1968, and Carol Chomsky, 1970) is still misinterpreted as a key argument against spelling reform, to his expressed distress. The way to go is to apply 'Chomsky' to improve spelling.

Do not let your hackles rise instinctively against any changes, at least for ten minutes. Any change in a long-learned habit is affected by psychologist Gordon Allport's insight that we can stand our own spit but other people's spit is revolting. Spelling is like spit. Your own misspellings are OK to you but anyone else's altered spellings can seem to you - well, spittable. That is, until they are familiar and you become used to them. We no longer spell *develop* with an *e* on the end, or *frenzy* with a *ph* - but that took us over a hundred years, and there are still doughty diehards fighting these changes.

Yet while dictionary English spelling is static, informal spelling is in flux if not chaos, as is everywhere observed and often deplored - from Text Messages on mobile phones, decisions to stop marking down undergraduates' exam papers for spelling errors, advertising spelling, and linguist Vivian Cook's revelations in his little book about broccoli in the graveyard that is spelling (Cook, 2004). Further documentation of the surprising state of spelling today is set out in *The Book of Spells and Misspells* (Yule 1005), which I hope everyone will buy for their friends and for a good laugh.

Seven principles are presented here for investigation, to clean up the underlying English spelling system to be predictable, yet change as little as 2.6% of letters in everyday text. The principles turn spelling reform assumptions on their heads and cut Gordian knots. They are research-based, to consider the needs and abilities of all users - readers, writers, learners, computers and international communicators. They use both visual and auditory channels for

reading and writing, keep our heritage of print accessible, and improve, not lose, visible relationships of words within the language and with international vocabulary in other languages.

PRINCIPLE 1.

Retain half of everyday text unchanged. The rationale for this conceptual breakthrough is simple. Only one hundred common words make up about half of everything you read, and only thirty-one of these ubiquitous words are irregular. Thirty-one words are not too many even for beginners to acquire explicitly as 'tricky sight-words' for rote-learning; they are capable of learning up to forty words from flash-cards without decoding clues, and can be assured that the rest of English spelling will be manageable. Contrast the present burden. Suggested 'sight-words' are: *all almost always among are come some could should would half know of off one only once other pull push put as was what want who why*, and international word endings *-ion/-tion/-ssion plus -zion* - as in *question, passion, vizion*.

PRINCIPLE 2

Continue to regard spelling as a standardized convention, as it is now, but systematized and the simpler the better - for example *banana* for 'banana', despite its three different 'a' sounds. *Dog* can be read by anyone as saying *dog*, regardless of how you say *dog*. That is, spelling representation is like a line sketch of a man that is recognized for such the world over, rather than a photograph that is of a specific man. The traditional aim of phonemic reform, spelling as you speak, comes to grief in decisions over choice of dialects, as if spelling were to be like the photograph. Instead, the standardized pronunciation of words would be taken from present standard UK and American dictionaries, but applied in spelling as in formal speech-making, not slurred as in casual talk, for example, *indscribabl* rather than, say, '*ndscribbl, independant not indpendnt, pictùr not pikcha*. When you say words like *spesial* or *qestion* quickly, they sound like *speshl* and *kweschn*. (For present purposes the definition of a phoneme is a speech sound that discriminates words in a language.) Users would speak with their own accents, as now.

This clear representation of the full structure of words would help to keep global Englishes similar in pronunciation rather than drifting into further dialects and slurrings. National Englishes would maintain their individuality in their vocabulary development, which can be shared with the world too, as well as in our distinctive accents, which are inevitable, and indeed charming, unless global

broadcasting homogenizes us all. In my own multicultural Australia, the diversity of the pronunciation of English, and our tolerance of this, demonstrates how faint now is the possibility of a global closely phonemic spelling system - broadband is essential.

There are already several thousand words with alternative but similar spellings in dictionaries. This flexibility would be extended, especially during transition, but not to the extent of disturbing automatic visual recognition in reading.

PRINCIPLE 3

The original base of English spelling, the alphabetic principle that letters represent sounds, is the base in its systematic repair. Beginners start with direct sound-symbol correspondence, it is used dictionary pronunciation keys, and is acceptable for informal writing. Vowel letters *a e i o u* represent both long and short vowels, a massive simplification, but long vowels can have a grav accent as diacritic when needed, or be given the 'silent e' treatment - the latter chiefly to enable recognition reading in present spelling, not required for memorizing or writing.

Letters match sounds. The details of this section are tentative.

a. Consonants.

As in *bad dad fad gag hag jag keg leg meg nag peg quik rag sag tag van wag ax yen zen chin shin this thin which sink sing plezhur*. Distinctions are unnecessary for *th*. For now, *c = k* and *q = kw*.

Dubld consonants have 3 uses only:

- i. Morfemic: Final /ss/ for single nouns and adjectives, as in *the prinsess and the prinsses found the dragons' dens in the denss forest*.
- ii. Showing irregular stress - *comitty distinguishd from comity*.
- iii. RR to distinguish a short vowel when needed as in *carrot corral currant*. (Contrast *car, coral cur*.)

b. Vowels

Vowel spellings are based on existing dominant spelling patterns.

a e i o u as in *mat pet bit not cut*

A E I O U as in *màt pèt bìt nòt cùt* or, in transition, as in *mate, pete, bite, note, cute*

ar er air or au as in *car perturb (ur = stressed) hair fort taut*

ow oy oo oo as in *round boil boot ?buuk*

At present there is no distinctiv spelling for the vowel sound as in *wolf could put book*. What is the solution? *wlf cd pt bk? wwlf cwd pwt bwk? wulf cud put buk?*

Consistent spelling patterns for final vowels

The second step for learners is consistent spelling patterns for final vowels – as in *pity, may, be hi-fi, go, emu, spa, her, hair, for, saw, cow, boy, too*. This regularizes present common conventions for vowels in final place, which add to the visual distinctiveness of words in reading for meaning, and maintain visual appearance.

Sequences of vowels are very simply represented. Accents for lerners are optional.

- a - bazaar pàella dàis (paid) càos taut
- e - idèa, (year) (meet) bèing crèol hidèus
- i - diàl dièt fliing ion piùs
- o - òasis, (boat) pòet gòing(boil) Zoo/zòolojy out
- u - dùal sùet flùid dùo inocùus

For reading, seven additional one-way vowel spellings can be recognized in reading present spelling, but need not to be learned for writing - *ai, ea, ee, igh, oa, ew, ir*. Each of these spelling patterns is pronounced only one way, not many ways as now, and nobody has to learn these spelling patterns to use themselves.

Details of three considerations that apply are discussed in appendices below that are only summarized here:

1. The English primary vowel system rather than ‘Continental’.

i. The English short vowels *a e i o u* are used in the English language far more often then the Continental sounds as in *pasta, ballet, police, depot tabu*, so changed spellings would be fairly drastic.

ii. The toggling of short and long vowels in English means that there are great advantages in similar visual representation of word families (the Chomsky line). This is possible when both long and short vowel spellings can appear as *a e i o u* by using *à è ì ò ù* for the long vowels. I do not see any other solution.

iii. In latin-alfabet languages of the world a great deal of shared English and classically-derived vocabulary is visually similar when the English versions keep their present spelling/sound relationship.

2. The effects of commonality of visual representation of long and short vowels for reading for meaning.

3 The advantages when an initial phonemic learning spelling modifies rapidly and systematically into adult text that also maintains the ability to read present spelling.

A passage from *Don Quixote* in the fonemic spelling for lerners, with consistent spellings for final vowels, plus 31 very common irregular words learnt as 'sight words'.

In a vilaj in La Mancha in Spàn, of which I cannot remember the nàm, ther livd not long ago one of thòz òld-fashond jentlmen, who ar never without a lanss upon a stand, an òld shèld, a thin horss and a grayhound. He àt bèf mor than muton; and, with minsd mèt on mòst nìts, lentils on Frìdays, and a pijon on Sundays, he consùmd thre-quarters of his income. The rest was spent on a plush còt, velvet briches, with velvet slipers for holidays; and a sùt of the best hòmspun cloth, which he gáv himself for wurking-days. The master was nearly fifty years òld, with a helthy and strong complexion, lèn-bodyd and thin-fàs, an erly rizer, and a luver of hunting. Some say his surnàm was Quixada, ie. 'lantern-jaws', tho this dus not mater much tu us, as long as we kèp strictly tu the trùth in every point of this history.

Comment. I cannot see why a fonemic base for lerners need be any further from present spelling than the exampl above.

4. Morfemic principles

Visual representation of units of meaning promotes fast automatic recognition of meaning, and gives clues to vocabulary and grammar. Three morfemic principles modify the alfabetic base.

1. Consistent spelling -s/-es and -d/-ed for verb and plural endings, even if the sound is like /z/ or /t/ as in

The cats, dogs and foxes barkd, snarld and shouted.

2 . Words are not changed by additions, - as in *dàzys, downsìze*.

3 . Consistent spellings for classical afixes - as in *education, passion, vizion, depiction*.

5. Words that sound the same.

Only a handful of sets of words that are 'homofones', may need to be spelled differently to avoid confusion, eg possibly *too/to (?tu)*

/two, for/fore/four/ know/no. Most homophones are already spelled the same, and the meaning is automatically directed by context. You can check this up yourself. In the last few paragraphs, homophonic homographs have included *second, present, conventions, just, long, short, can, pronounced, fast, base, even, sound, like, letter, and tense.*

6. Indicators of irregular stress.

Irregular stress in words can cause confusion and even incomprehension for learners, especially foriners. It can be indicated by dubld letters as in *comitty, umbrella, and lapell* contrasted with *làbel*; by syllabic consonants when schwa sounds are minimal, as in *melncoly* ;and with 'ur' for the stressed 'er' sound, as in *perturb*.

This is a flexibl matter and adult text may simplify, e.g. *predicament* rather than *prediccament*, but both acseptabl.

7. Some transitional features, and personal spellings for names and places

Silent initial letters are temporarily retained to avoid problems with dictionary serches, as with *psicology* and *knot*.

The spelling of names of pepl and places are the owners' responsibility and right.

Spellings for French imported words - Most imported words can be given an English spelling, but some, especialy French, are so problematic to respel they may be best left until the pronunciation has 'englishd', as with *beef, pork* and *mutton*. Lerners can be given a page that lists Continental sounds and untransliterabl forin spelling patterns and pronunciation rules - e.g for *bouffant boutique boudoir bouffe bouillon bouquet bourgeois bourgeoisie* - rather than attempting, as some have tried, *buurzhwaazee* or *boekai* - until eventually such words become mor anglicised in everyday speech, as in perhaps, *depo, amatur, cadet*.

Applications

The result is spelling without traps. As fonts and handwriting can be varied according to purpose, so 'spelling without traps' can be adapted to vary according to three purposes - for reading; for reading aloud and showing pronunciation by adding occasional accents for long vowels and dubld letters for unexpected stress; and thirdly for writing and initial lerning.

1. **Spelling without traps for reading** is almost identical to what we now have, but is without traps. The only training required for present readers is to realize that sounds as in the letter names A E I O U can be represented with grav accents as in à è ì ò ù.

ii. During this transition, new readers will be enabled to read some spelling variations, which have one-way pronunciation, but new writers will only need one-way spelling.

2. **Spelling without traps for reading with pronunciation clues** includes grav accents to show long vowels and doubled letters to show unexpected stress.

3. **Spelling without traps for beginners and for writing.** Phonemic with minimal modification. Writers are not bothered with having to recall alternative spellings. See example above.

Example of **Spelling without traps for reading, with pronunciation clues.**

In a villaj in La Mancha in Spain, of which I cannot remember the name, ther livd not long ago one of those òld-fashond jentlmen, who ar never without a lanss upon a stand, an òld shield, a thin hors and a grayhound. He ate beef mor than mutton; and, with minsd meat on mòst nights, lentils on Frìdays, and a pijon on Sundays, he consùmd three-quarters of his income. The rest was spent on a plush coat, velvet britches, with velvet slippers for holidays; and a sute of the best homespun cloth, which he gave himself for wurking-days. The master was nearly fifty years òld, with a helthy and strong complexion, lean-bodyd and thin-fàsed, an erly rìzer, and a lover of hunting. Some say his surname was Quixada, ie. 'lantern-jaws', tho this dus not matter much tu us, as long as we keep strictly to the trùth in every point of this history.

What investigation and action? Informal change in English spelling should not just add more uncòordinated càos, as has happened with some past changes intended to improve.

Spelling improvement needs informal experiments by anyone - test out yourself what you like when you like. We can conduct our own experiments on the Net, and rebel at some of the stupidities that for so long have been enforced as a social strategy to keep the hoi polloi off the ladder of social mobility. Anyone could start with cutting out surplus letters that serve no purpose in representing meaning or pronunciation, as in *acomodate*, *delicat*, *disiplin*, *gardian*, *forin*. (See Appendix D on surplus letters in words.)

In the experimental pilot stages, publications can decide on their own house-styles, which may mix the three levels, or amend present spellings towards them. There may be more trends to 'spelling pronunciation' – speaking as it is spelled – as well as the dominant trend to streamline our written words.

Minor details such as predictable conventions for schwa in suffixes can also be sorted out, but there must be research - and official grants for R & D in this neglected branch of communications technology. For some reformers, R & D is a word connoting postponement and expense, but no one can claim that it has not produced amazing practical results in all other areas of modern IT.

Once spelling change gets on the way, it can move fast – as it has with text messaging, but it must not move into just other forms of chaos. English spelling has been a social oppression, and a global oppression. It needs an International English Spelling Commission, because the English language now belongs to the world, and not to a chosen few.

To be passive and not to rise up against these barriers to literacy represents what has been called 'a failure of the human spirit'.

APPENDICES

Appendix A. Should the primary vowel letters a e i o u represent English or 'Continental' pronunciation in English spelling?

'Continental' spellings for the five basic vowels sounds a e i o u, as in *pasta ballet police depot tabu* are used in a significant proportion of spelling systems in the roman alphabet, and romaji transliterations for languages such as Japanese and Chinese. It would seem an attractive and sensible proposition for English spelling system to join this international usage. Many (but not all) learners of the English language would then not have to change the values of these five vowel letters from their accustomed usage. However, the very fact that English is currently the major international language turns out to be one of the many reasons why the primary English vowel sounds should continue to be represented as they are now, but consistently, without present unpredictable variations.

The English language has around twenty vowel sounds, more than most languages. Some, such as Hawaiian, Japanese, Italian and Spanish, have five or hardly more, so that it is no problem for them

that the roman alphabet has only five primary vowel letters, *a e i o u*. English, however, does have problems, and the many different solutions over time have only made the spellings worse. There are over 218 different ways to spell those twenty vowel sounds.

In the future, English pronunciation may collapse its many vowels into say ten, or experience yet another Great Vowel Shift as in medieval times, but current distinctive features of the language require continuity in the present usage for the five primary vowels *a e i o u* as the short vowel sounds as in *man men bit not but*.

English 'short' and 'long' vowel sounds *a e i o u* and AEIOU (the sounds in the letter names) are the predominant vowels in English text, where usually around 60% of words will contain short vowels and 20% long vowels, so that change in their representation is a significant disruption. The five most common vowel sounds in English are the so-called 'short' vowels, and are usually spelled with the five primary vowel letters. These five vowel sounds often present difficulties for foreigners to discriminate and pronounce, and have no clear representation in the 'Continental' vowel system, altho they may occur in some other European languages.

The 'Continental' vowel sounds occur significantly less frequently in English, as shown in Table 1.

Table 1. The frequencies in a million words of English text of 'English' and Continental pronunciations for the five primary vowel letters *a e i o u*

English 'a' as in <i>mat</i> , including 30% unstressed as in <i>about</i>	212,867
Continental 'a' as in <i>pasta</i> , <i>n</i> 1,475, plus spellings for the sound as in <i>car</i> , 18,791	20,266
English 'e' as in <i>pet</i> , including 30% unstressed as in <i>system</i> , plus even more obscure, as in <i>demand</i> , <i>n</i> 25,699.	185,608
Continental 'e' as in <i>ballet</i>	63,174
English 'i' as in <i>pig</i> , including 1% unstressed as in <i>possible</i> , plus even less stressed as in <i>edit</i> , 4,504.	232,238
Continental as in <i>police</i>	75,063
English 'o' as in <i>dog</i> , including 22% unstressed as in <i>atom</i>	113,858
Continental 'o' as in <i>depot</i>	48,485
English 'u' as in <i>sun</i> , including 1% unstressed as in <i>focus</i> .	92,862
Continental 'u' as in <i>debut</i>	22,214

(Compiled from Rondthaler & Lias, *Dictionary of Simplified American Spelling*, Scholars Edition, 1986, pp 305-397, showing frequencies in a million words.)

That is, in 1,000,000 English words there are a total of 675,035 Anglo pronunciations of *a e i o u*, that is, up to 76%. In the million words, there is a total of only 228,202 Continental pronunciations, that is, roughly 23%.

To use Continental vowel spellings for the primary vowels would clearly change far more of English text, especially if it meant that the English primary vowels were spelled with digraphs, two letters, lengthening the spelling of English words, when the trend and the demands are that it should become shorter and more streamlined.

The English short vowel sounds are often hard for foreigners to distinguish and pronounce in any case, but they are clearly a staple of the English language and some approximation must be made. For example, it would cause less disruption to the appearance of English spelling and of English vocabulary internationally to use the primary vowel letters for all instances of the Anglo sound *a* in *mat*. This would regularise traditional spellings such as *meringue*, *have*, *plait*, *guarantee*, *salmon*, and *harangue* into *merang*, *hav*, *plat*, *garantee* and *samon*, but all except one of these instances require only omission of redundant letters, which is the least disrupting change to the appearance of text and does not affect reading for meaning.

2. The relation of short and 'long' vowels in word-families

The English language has a special linguistic relationship between the so-called 'short' vowel sounds *a e i o u* and the 'long' sounds pronounced as in the letter names *A E I O U*, in a significant proportion of English word families. Noam Chomsky has made of this an argument for the visible representation of what he perceives as underlying structure.

Present spelling may show this relationship of words visually, facilitating reading for meaning, as in *nation/national*, *finite/infinity*, *reduce/reduction* - altho not nearly as often or consistently as the Chomsky theory of optimal spelling supposes. A spelling repair could make these relationships visible more consistently when needed for learners and when discriminations are needed (as in the suggested use of grav accent diacritics, as in *nàtion/national*, for lerners and when needed - which is not always -.)

3. Visible relationships of vocabulary shared by English and other languages facilitate reading and understanding. Much

modern vocabulary has similar forms across the world, as also vocabulary with Romance, classical and Germanic origins. Often enough this shared vocabulary is pronounced with English short vowels in English, and with Continental or other vowels in other languages, as in *dame/dame, gas/gas, man/mann, material/material, mild/mild nature/natur, number/nummer, cadet/cadet, fruit/frucht, under/unter*. In an Indonesian children's picture book, for example, **80% of the words were modern imports** - *alkohol, dokter, kompres, pil, dekor, kamera, televisi, mikrofon, monitor, musik, rol film, sekretaris, generator, hanggar, helikopter, kabin, kompresor, mobil, mobil, pilot, kompas, kronometer, antena, interkom, traktor, transformator, voltmeter, basket, kroket, ping-pong, raket, ski, pelican, vultur*. (The K consonant is familiar enough to us, but switching of vowel spellings would slow visual recognition.)

4. Greater disruption and reduced backward compatibility when English spelling is greatly changed. There may be a breakthrough to a writing system that can cross languages, without the problems of Chinese or Blissymbols, and with phonemic representation only needed for local grammars, but until then, repair of English spelling system is more useful and practicable than radical change. For example, observe in the following sentence the high proportion of print that would be affected by changing the spelling of the five primary English vowel sounds:

Thx need for cxmpxtxbxlxtx wxth thx xmmxns xmount xf prxnt xn
Englxsh txdy xnd our globxl hxrxtxge xf prxnt xn Englxsh xs xn
xmportxnt cxnsxdxration.

5. Pronunciation of English vowels by foreign learners of English

The 20+ English vowel sounds present many overseas learners with problems of discrimination and pronunciation, especially for those who may be accustomed to only five or hardly more.

There is only one advantage in applying the Continental vowel system. Learners of English accustomed to the spelling of the five Continental vowels can experience some initial confusion when the primary vowels are pronounced differently. However, they are likely to have difficulties in discrimination of spoken English primary vowels in any case, the usage is not a bar to comprehension, and the transfer is not a serious handicap.

As long as a new vowel system is consistent and they can distinguish the sounds, learners can transfer quickly - for example, English-speakers can learn German or Italian pronunciation from

principles that can be listed on a quarto sheet. Research on Serbo-Croatian biscriptalism can also be useful on how readers can transfer to different linguistic environments.

In short, the reasons for retention of the English pronunciation of the five primary vowel letters are:

1. Predominance of the five 'short' vowel sounds in English speech
2. The relationship of short and 'long' vowels in word-families, discussed further in Appendix B.
3. The visible relationships of vocabulary in English and other languages that facilitate reading and understanding,
4. The need for backward compatibility with the amount of print in English today and the global heritage of print in English, which probably outweigh the amount of print in all other languages.

APENDIX B. The effect of commonality in visual representation of short and long primary vowels for reading for meaning.

The 'Chomsky theory' and diacritics for 'long' vowels

A diacritic is a mark added to a character to change its pronunciation.

The five 'name' vowels sounded as in A E I O U and often called 'long vowels' are not a proper linguistic set can be regarded as one in practice.

- i. They make a set as far as ordinary people are concerned, because from childhood they know them as the names of the five primary vowel letters a e i o u, and 'magic e' is a shared spelling device.
- ii. In the English language long vowels often toggle with the short vowel sounds a e i o u within word families, and often share spellings, as in *national/nation*, *finish/final*, *disposition/dispose*, *production/produce* (but not always, as in *repetition/repeat* and *succeed/success*). Noam Chomsky interpreted these spelling relationships of words as derived from underlying deep phonological structure (Chomsky & Halle, 1968), and Carol Chomsky (1970) gave this as an argument that present English spelling is 'optimal', because often (but not always) the same morpheme is spelled the same way regardless of whether it is pronounced long or short, or even slurred into insignificance.

The 'long' vowels are the biggest bugbear in English spelling. The hotchpotches of expedients to spell them are major booby traps (see list below) while reformers' 'sensible' respellings (e.g with two letters to represent one long vowel sound) can make words look so

different that they are often immediately rejected as uncouth, with no opportunity to become familiar and thus accepted.

A solution is single vowel letters with optional grav accents added as needed. Advantages:

- **Improved visible relationship of short and long vowels in word families, plus pronunciation clue,** is a neat answer to the common 'Chomskyan' objection to spelling reform. Diacritics for long vowels help learners to identify both meanings and pronunciation of related words, such as *pròsèd/pròsession national/nàtion, repetition/repèt, finish/final, dispozition/dispòz, production/prodùs, succèss/succèsèd, repetition/repèt*. The testable claim is that such linkage also helps skilled readers to read text faster for meaning

- **Aid for learners.** J H Martin used macron diacritics over long vowels in teaching beginners to read. They added the marks in their own writing only if they chose. This also suits learners' 'natural spelling' tendencies to spell long vowels like short ones eg. *Suzi mit lik an iscrem*.

- **Economy.** Singl letters are then suficient to spell ten of the 19 or so English vowel sounds, and only two letters are needed for multipl vowel sequences such as *pòet*.

- **The minimal visibility of grav accents** does not disrupt skilled reading as macrons, dieresis or other diacritics might. The direction of the accents goes with the flow of the eye and flow of hand-writing. Colons (:) or 'silent e' can be substituted when email, typewriters or hasty writers cannot handle accents, but accents disrupt reading less, they can be made single-stroke on keyboards, are available for most fonts in word-processors, while customizing, internet and email formating capacities are continually improving. Accents can be applied according to house style, personal preference or the practicalities of transmission. Experience will show what is really needed.

- **Limited necessity.** Long-vowel diacritics are needed for less than one word in five and for adult text may be altogether omitted, as in *baby, medium, kind, most, education*. Context also often gives suficient clues to make diacritics unnecessary.

Examples of the many traditional spellings of the long vowels

- a** *bake play baby wait raise maize great eight straight dahlias
goals they reign ballet matinees veils bouquets 17*
- e** *we beat chief street police machine please freeze cheese receive
people believe key league 14*
- i** *hi-fi my die like light sign either dye island guide eyed
diamond aisle choir 14*
- o** *old float know rogue chauffeur depot mauve brooch shoulder folk
though, beau ghost Cologne 14*
- u** *music new due refuse you view Hugh beautiful ewe deuce feud
juice lieu fugue 14*

Appendix C. An initial learning spelling as the base

The concept of an initial learning spelling has been around for a long time, as with Pitman's initial teaching alphabet, i.t.a, which gave learners the shoehorn into how to read, but they had to adapt later to traditional spelling (TO), not all with success, particularly in spelling. Some think that an initial learning spelling that also operates as dictionary keys can itself lead into eventual adoption of a spelling system that is different from standard spelling conventions, while for the meantime, learners can acquire and cope with present spelling as well. However, this overlooks the important role of automatic visual word recognition in learning to read and skilled reading, whether this is the initial strategy or consequent from first decoding. To learn one set of letter strings and then adapt visually to another is not the most efficient way to go. It cannot be compared with Japanese initial learning of linear semi-syllabic *hiragana* and then learning Chinese characters.

In the repaired English spelling that is proposed here, the original alphabetic base that is first acquired by learners is almost immediately modified by the further principles, so that even within weeks it is possible to read a spelling system that is 'traditional spelling cleaned up', and they can begin to read it almost from the start.

Appendix D. Surplus letters in English spelling

Up to 6% of letters in words in English text are surplus, serving no purpose in representing meaning or pronunciation, and indeed often mislead. Individuals can make their own first step to improve their spelling by dropping letters they clearly see are useless.

- Efficiency. Save time and paper - and even hassle in trying to remember what the extra letters are and where they should go.

- Informal trends everywhere are to streamline. The commonest reason for spelling ‘mistakes’ is leaving out the surplus letters or putting them in the wrong place. See the 16-word test below.
- My extensive experiments in readers’ response to omission of surplus letters show that for most people disruption is insignificant, many surplus-cut spellings are never even noticed, and poor readers can benefit.
- Omitting surplus letters only arouses negative responses from most readers when *the* is cut to *th*, probably because *the* is the most familiar and recurring word in text, so that it ‘hits me in the face’ when its three letters are cut by a third.

On the other hand, readers take longer to adjust to changed letters in words. Adding letters changes the appearance even more and encounters most resistance. Spelling reformers can check this out with their own proposals.

‘F’ rather than ‘ph’ for the sound /f/ is a welcomed improvement, which has been increasing since 1750, as for example, *phrenzy* gives way to *frenzy*. ‘F’ is shorter, it is the modern translation of the Greek original, and we often see it internationally, as at airports, with ‘*telefon*’ ‘*fotograf*’ etc.

The Sixteen Word Spelling Test

for anyone who thinks they are a good speller. Some or all of these words may be incorrectly spelled. Write them out correctly.

acomodate . . .	exessiv	miniture	professr
gage	unparaleld . . .	disapoint	gardian
mischivus	psycology . . .	sovren	disiplin
iliterat	ocasion	recomend	tecnicly

See <http://home.vicnet.net.au/~ozideas/16sp.htm> for details of findings from this simple test. Most people, even literacy educators, cannot write out all these 16 words correctly. The missing letters are not even missed, or cannot be replaced correctly.

Appendix E. Spelling without traps for readers retains 31 very common words with irregular spellings; several different spelling patterns may represent one speech sound, but all are consistent, except for two possible pronunciations for *c/ce* and *g/ge*. The five primary vowels may be long or short.

Don Quixote is a suitable hero to illustrate this project.

In a village in La Mancha in Spain, of which I cannot remember the name, ther livd not long ago one of those old-fashond gentlmen, who ar never without a lance upon a stand, an old shield, a thin hors and a grayhound. He ate beef mor than mutton; and, with minsd meat on most nights, lentils on Fridays, and a pidgeon on Sundays, he consumed three-quarters of his income. The rest was spent on a plush coat, velvet britches, with velvet slippers for holidays ; and a sute of the best homespun cloth, which he gave himself for wurking-days. The master was nearly fifty years òld, with a helthy and strong complexion, lean-bodyd and thin-faced, an erly riser, and a lover of hunting. Some say his surname was Quixada, ie. ‘lantern-jaws’, tho this dus not matter much tu us, as long as we keep strictly to the truth in every point of this history.

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3. Fuller bibliographies directly on spelling reform are available in publications and website of the Simplified Spelling Society, www.spellingsociety.org, the web pages of Dr Steve Bett, and Ozideas Internet pages, examples below.

4. Some Internet pages on spelling, literacy and writing systems.
 (Note. No *www* in URLs.) For accounts of background in research and theory, and the needs and abilities of users and learners, see :

<http://home.vicnet.net.au/~ozideas/spelling.htm>,
<http://home.vicnet.net.au/~ozideas/spelref.htm>, and other links from <http://home.vicnet.net.au/~ozideas> on improving spelling for learners, spelling reform to help writers and readers, 7 principles to improve spelling (to be updated, spelling principles for research, English spelling for international use, criteria for spelling improvement, bibliography for spelling reform, surplus letters & spelling reform, the basic English spelling system in half a page, chart of present English vowel spellings, the 16-word spelling test, alphabetic writing systems, and problems of writing systems.

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