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Diachronic Change in English Orthography with Proliferation of Computer-Mediated Communication (CMC)

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Abstract: *Every living thing faces a change. English, being a living language, has also gone through a course of variation since its initiation. These variations have been detected in English at every level. Most importantly, English orthography has changed a lot. The current study explores the impact of CMC on English orthography. Centered on some parameters and classification of data, this research principally investigates the Facebook status over the last three years. The study reveals that the existing English orthography is abridged and compact as compared to Standard English. Vowels underwent deletion in written script whereas pronouns are not present in many cases. Simplification in English spellings exhibits exceptional novelties i.e., numeric insertions in text, creativity in written structure, omission of letters, and phonological, phonemic and morphological changes in orthography. This research argues that there has always been a diachronic change in English spellings and CMC has accelerated it.*

Key Words: English, Orthography, CMC, Impact, Standard English, Variations

Introduction

The extensive use of the internet, especially during Covid-19, has resulted in language change at a massive level. Each segment of language has undergone a change which, in present times, has become more frequent with Computer-Mediated Communication. All those features of language which were ignored before have displayed a considerable level of change. The novel characteristics according to Crystal (2006) are 'Weblish', 'Netlish' or 'Cyberspeak'. This is also termed 'Online Discourse' and 'CMC' (Computer-Mediated Communication). Apart from the rest of the features, English spellings have also changed and many novelties have been seen in the past few years in English spellings.

Gelderen (2006) states that the English Language kicked off in 499 AD when Germanic

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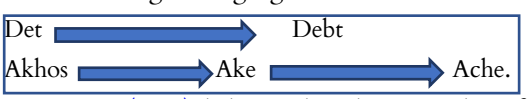
tribes (Angles, Saxons and Jutes) conquered and settled in England. Pagan culture prevailed during the Old English Period. Roman Catholic church came to England at the same time and the Latin language, along with Old English flourished. The Exeter Book is a compilation of Old English poems which show Christianity and Pagan elements. Hymns and poems like The Wanderer, The Sea Farer and the first English epic poem Beowulf show the use of Old English. **Invalid source specified.**. This was the initial period of language development which exhibited some features like alliteration, kennings and repetition in Old English poems.

The Battle of Hastings in 1066 brought French influence to England. 1066 is also known as the invasion of Normans or Norman Conquests. Normans came from the North of France and brought with them a rustic and local dialect of the French language. Hence the Old English and the mentioned dialect of French resulted in Middle English. During this period, simplification in English Spellings was seen because the ending of many words was simplified. Baugh and Cable (2002) comment that initially, English was the language of people, French was the language of the Court and Latin was the language of the Church but after 1300 AD, gradually English language replaced all the spheres and French and Latin influence was reduced. Chaucer's *Canterbury Tales* is an example of the use of Middle English work which became very popular among people.

According to Doval (1999), *cniht* (Old English) was changed into *Knigh*. This word has a Germanic influence because k and h are silent letters in modern English. In Modern English, k and h in knight are silent letters. On the other hand, c and h were vocalised in Old English which brings the word closer to its Germanic origin. Deletion of vowels from orthography was also a feature of French influence on the English language. Pyles & Algeo (2009) believe that many words which initially didn't have vowel letters included vowels in the coming age. The modern word, craft was initially written as crft and thread was written as thrd. The same vowel deletion has again been frequent under Computer-Mediated Communication which is obvious through data analysis.

Another factor that brought a massive change in English orthography was The Great Vowel Shift. The use of short vowel sounds in this shift made the language undergo a revolutionary change. This was due to French influence, migration of population, middle-class hypercorrection and war with France also affected the language in many ways. Davidson & Upward (2011) state that the English language received its modern form after the conclusion of The Great Vowel Shift. Pyles & Algeo (2009) believe that this shift was a revolutionary shift that altogether changed the use of spellings and sounds, especially of vowels.

During Renaissance, England exhibited quite aggressive behaviour. It captured a massive area of the world after the discoveries made by Renaissance discoverers. English people reach far and wide in the world and language contact with the rest of the world made the language more simplified**Invalid source specified.**. According to Rollings (2004), coinage came to the English language during Renaissance. Pyles & Algeo (2009) are of the view that another potential reason for change and simplification in English language spellings was the invention of the printing press. The English language went through a lot of reformation and simplification during this period. Davidson & Upward (2011) state that Greek and Latin knowledge helped English scholars to introduce silent letters in English. Following is an example of the introduction of silent letters and how they were used in the English language.



Baron (2000) believes that there is a lot of difference between Old English and Modern English vocabulary. Industrial Revolution and Colonialism gave rise to many novelties in English vocabulary. Apart from this, many popular works like *Gulliver's Travels* etc. brought new words to the English language which proves that change has always been there in the English language. (Herring, 2013). Similarly, coinage was seen quite frequently after the language contact that was the

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result of colonialism and the industrial revolution. (Danet & Herring, 2007).

During the 19th Century, Noah Webster, in his dictionary, simplified many words which were not welcomed then but afterwards, they were accepted and used, especially in American English, such as *Humor* instead of *Humour* and *Favorite* instead of *Favourite*.

Doval (1999) gives credit to Spelling Reformation Boards which included language experts, phoneticians and teachers. This board brought simplification in English spellings by reedition of dictionaries. that many Spelling Reformation Boards were then introduced which comprised of teachers, phoneticians and language experts. They reedited the dictionaries and made the spellings standard and simple. According to a legend, it was G.B. Shaw who coined the term *GHOTI* in his quest for spelling reform which stood for the word *fish*. He pronounced it "fish" because of the ridiculous sounds such as /f/ in touGH; /i/wOmen; and /sh/ in naTIOn.

George Bernard Shaw was much concerned about the English language. His play "Pygmalion" is all about phonetics of English which shows his interest in the English language. He devoted a lot of money for the sake of spelling simplification. He believed that the English language should have simple spellings instead of confusion which he exhibited from the sound *GHOTI* mentioned above. Hence, he considerably influenced English spellings.

Change has ever been a non-stop process in the English language. (Mayoral & Alcaraz, 2008). Most of the time, the changes are brought about by society. Moreover, these changes are not random in nature. We can detect a pattern of these changes i.e. the patterns which are used as a model for this research. Initially made as a means of communication, the English language has been through many changes since the 14th Century A.D. The process of simplification has always been attached to the English language since then. (Camenev & Melenciuc, 2010).Each and every segment of the English language and linguistics has undergone some simplification. We can find instances of simplification in spellings, syntax, semantics, morphology and phonology etc. Vowel deletion has been considered the most important feature of this change. Shimron (2006) believes that in the Hebrew language, vowels were rare and consonants were more in number. The same case can be observed in Computer-Mediated Communication patterns where vowels are ignored or deleted.

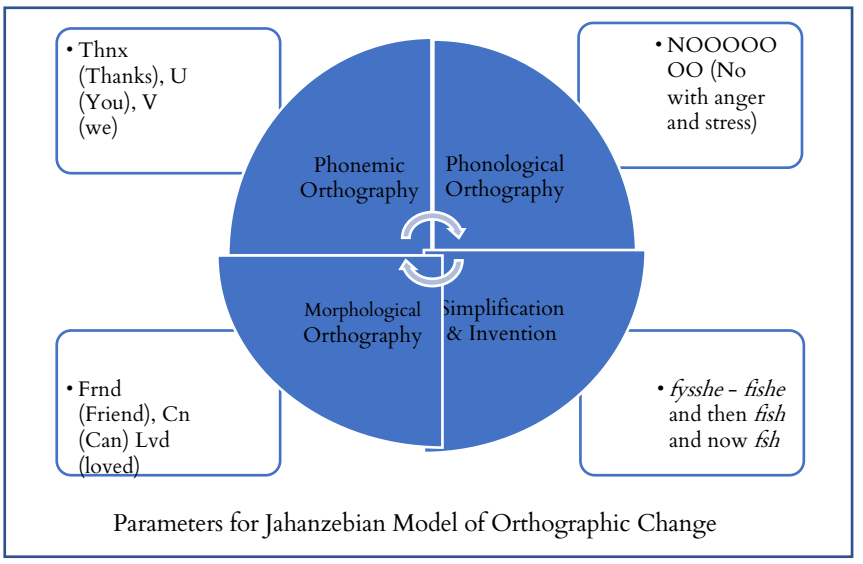
Pictograms from the Chinese language, according to Campbell & Moseley (2012), are now indispensable. Hence Computer-Mediated Communication has given rise to such unusual patterns which were either slow in process or were non-existent.

Computer-Mediated Communication can best be described as communication that is carried through computers and the internet. Baron (1998) explains two types of Computer-Mediated Communication which are: asynchronous (interval/pauses) and synchronous (instantaneous). Both of these types have resulted in novel Computer-Mediated Communication patterns. The current English language is creative, simple and handy (Danet, 2001). The creativity of the CMC users can be witnessed in various unique patterns. i.e. number and letter homophones, for instance, *l8*for *late, gr8* for *great*, numeric inclusions such as *2morrow* for *tomorrow*, simplification in syntax, for example omitting the first/second person singular and simplified punctuation, and vowel omission such as *mtr* for *Meter* etc. (Thurlow, 2003). Hence Computer-Mediated Communication has played a vital role in language change and Facebook, as a popular segment of Computer-Mediated Communication, has enough data to prove the stance that English orthography has also changed over time. Many similar research studies are conducted on the effects of Computer-Mediated Communication on Cross-Cultural Pragmatics, Online Networking, Semantic Change, Meaning-Making, Children Online, Interlinguistics, Language and Gender, Discourse Markers, Academic Performance, Online Learning, Business E-mails, Social Media Ethics, Text Messages, Rhetoric Criticism and Error Analysis etc. All this proves that Computer-Mediated

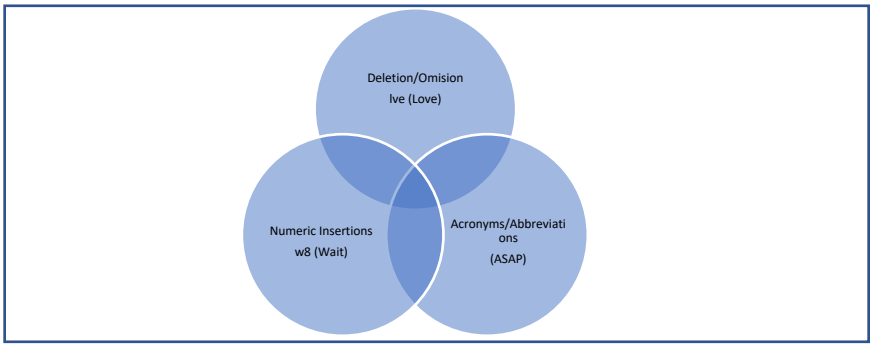
Communication has been affecting so many factors online. Some call it simplification and others term it complexification. In any form, we can not undermine the importance of Computer-Mediated Communication.

Methodology

This research is qualitative in nature but the frequencies of examples are stated quantitatively. Facebook is used as means to collect data and three "statues" of 50 Facebook users for three consecutive years were selected as a sample. The sample was taken from the Facebook walls which offers a feature to see their previous years' data. Hence 150 statuses from the past 3 years (2019-2020 and 2021) are analysed to see the change in orthographic patterns. The frequency of the change in orthographic patterns is observed and stated in tabular form to show the role of Computer-Mediated Communication in an orthographic change in the English language. After detailed analyses of the factors that change orthography, 05 parameters and 03 classifications are used to analyse the change in English orthography. These parameters and classifications are explained in the given *Jahanzebian* Model of Orthographic Change.



Parameters for Jahanzebian Model of Orthographic Change



Classifications for Jahanzebian Model of Orthographic Change

Explanation of the Model: (Parameters)

Following is the explanation of the model. The parameters of the *Jahanzebian Model* of Orthographic

change are based on these.

Phonemic Orthography

Phonemic orthography means the use of sound patterns and writing the spellings according to the sound. Many examples over history are seen in which people have used the sound to write spellings. Most commonly, due to Computer-Mediated Communication, many words appear which are employing sound to write orthography. For example, *the* is written as *da*, *thanks* is written as *thanx*, *good* is written as *gud*, *because* as *becuz*, *hello* as *hellow*, *love* as *luv*, *what* as *wat* and *do* as *du*. These are phonemic changes in orthography which are quite frequent in Computer-Mediated Communication. It is because people tend to follow the sound system and invent their spellings accordingly.

Phonological Orthography

Phonological orthography is the use of suprasegmental features in spellings. It has also been termed as an evident force in the change of spelling since the beginning. Most commonly, it is used in present online discourse because people can not convey their emotions through text messages. They use novel and creative patterns of orthography for this sake which can be seen as the use of stress patterns most frequently, such as they may write in capital letters when they are angry e.g. *HOW DARE YOU, ARE YOU OUT OF SENSES, DON'T TALK TO ME* etc. They also used to show their happiness and sadness through the use of capitalization such as *SO HAPPY, FEELING GREAT, THANK GOD* etc. At various places, they have used additional letters with a word to show stress patterns such as *YAHOOOOOOO*, *SOOOOOO HAPPPPPYYYYY* and *THANKSSSSSSSSSS* etc.

Morphological Orthography

Morphological orthography deals with the change in spelling by reducing them for ease. This is because of time-saving acts and creativity on the part of users. Hence many instances of *what* changing into *wat*, *thanks* to *thx*, *going* to *going* and *family* to *famly* etc. are appearing.

Simplification/Invention

Simplification and invention are always common in every language system. People try to make language simple and handy. The practice of simplification and invention in the language is not new but with the advent of mobile technology, it has become extremely frequent. The initial phones had keypads with them (some of them still exist). Those did not have the QWERTY keyboards on them. Hence the users had to type 26 letters from 9 buttons (1-9) by pressing some buttons thrice or even four times to write the desired alphabet. Hence they invented some words and made language simplified. For example, *will* be changed into *wl*, *give* to *gv*, *you* to *u*, *for* to *fr*, *baby* to *bby*, *birthday* to *bday* and *congratulations* to *cngrts* etc. This evidently shows that changes are becoming more and more frequent with the passing of time. People are getting more creative and their devices are giving them enough room to come up with unique ideas for writing. Due to competition, each new device, handset or tablet offers something creative to users. This competition has altogether made language simplified. Smartphones now have the option of text replacement. You can write a very long message and give a shortcut of "123" to it. Each time when u type "124", that message can appear. Hence there are many factors involved that can bring change in written patterns.

Explanation of the Model: (Classification)

Following is the explanation of the second part of the Jahnzebian Model of Orthographic change.

Deletion/Omission

Deletion and omission is also a common feature of many languages where mostly deletion of a vowel is detected. The reasons associated with initial cell phones having 9 buttons to type for 26 letters are also associated with it. Just like the Hebrew language, Computer-Mediated Communication is

also displaying omission of vowels. In current patterns of orthography, vowels are seen missing, such as *Good* to *gud*, *give* to *gv*, *take* to *tk*, *light* to *lght*, *want* to *wnt*, *will* to *wl* and *understand* to *undrstnd* etc.

Numeric Insertion

Similarly, numeric insertion is also a way in which present orthographic features might be classified. Sometimes users use the phonic system and add numerics within letters or in replacement of letters. That may be seen in examples like, *Wait* into *w8*, *fine* into *f9*, *tomorrow* into *2morrow*, *tonight* into *2night*, *me too* into *me 2* etc.

Acronym/Abbreviation

Acronyms are new words that are formed using the initial letters of a longer phrase. Abbreviations are also the initialism of letters with a dot in between. Computer-Mediated Communication has shown considerable usage of abbreviations and acronyms in the present online writing style. *brb* stands for *be right back, btw* for *by the way*, *lol* for a l*augh out loud* and *P.S.* for *postscript* etc. Since the inception of technology, from the internet, chats and Emails to mobile phones and smartphones, users have given birth to interesting and novel acronyms and abbreviations. Their chats and Facebook postings are replete with such examples. What makes these patterns different is that change doesn't come from some standard authority. Rather people themselves are creators of new words and acronyms/abbreviations.

The explanation of the *Jahanzebian* model suggests that English language spellings have always been changing on the basis of these parameters and classifications for long. This change is diachronic in nature and these factors have developed considerable influence on spelling change. Spelling change is one of the most obvious factors of language change after pronunciation. Hence the current study is about a very significant change that is coming in the English language through the role of Computer-Mediated Communication.

Data Collection and Analysis

Jahanzebian model of Orthographic Change is followed to analysed the data and frequencies of the usage of the parameters and classification. The instances from data of 150 status are stated in tabular forms which clearly offers a year-wise change in English orthography. A sample analysis of a Facebook user's posting is as under:

Linguistic Posting of a Student in 2019

"I like his movies. nice actor"

Linguistic Posting in 2020

"yarthnxxxxxx4 da favor, lovdddd it"

Linguistic Posting in 2021

"OMG cn u in4mWATTT did he du 4 u"

Table 1. (Classification) based on the Jahanzebian Model of Orthographic Change

Year	Deletion/Omission	Numeric Insertion	Acronyms/Abbreviations
2019	None	None	None
2020	Thnx, da, lovd	4	None
2021	cn, u, wat, du	In4m, 4	OMG

Analysis

The year 2019 doesn't offer any change but in 2020, *thnx* replaces *thanks* and *da* replaces *the,* whereas *loved* is shortened to *lovd*. At the same time, numeric insertion as *4* is used instead of "*for*." In 2021, *Can* is shortened to *cn* and *you* are reduced to *u*. *What* is decreased to *wat* and *du* is used as a creative variant of *do*ing. This very much shows a gradual difference in the written patterns which is exhibited through the data. People have shown an inclination towards simplification of language. Time-saving is also another factor which is reflected through such a condensed type of use of orthography.

Table 2. (Parameters) based on the Jahanzebian Model of Orthographic Change

Year	Phonemic Orthography	Phonological Orthography	Morphological Orthography	Simplification	Invention
2019	None	None	None	3rdPerson Singular	None
2020	Thnxxxxx, da, u	Lovddddddd	Lovd	…. Lovd it	4
2021	u, wat, du	WATTT	cn, wat, du,	No question mark	In4m, du

Analysis

Standard English is used in 2019 except for the omission of third-person singular. In 2020, *Thanks* is changed to *thxxxxxxx* and *ks* is missing from standard spellings. *The* is changed into *da* and *you* is reduced to single alphabet *u* (Phonemic Orthography). *Loved* is used as a stressed word (Phonological orthography) by adding multiple *Ds* after *love* (*lovddddd*). Omitting *e* from Loved (*lovddd*) is an example of morphological orthography. Simplification is exhibited when the f*irst person singular* is omitted before *lovd* it. *4* is an example of an invention that is replacing *for*.

Changes are even more significant in 2021 where *you* is reduced to *u*, *what* to *wat* and *do* is changed to *du*. *WATTT* is an example of phonological orthography and stress is given through multiple *Ts*. In Morphological orthography, *can* is changed to *cn*, *what* to *wat* and *do* to *du*. Simplification is seen as no question mark is added after a question. Finally, the change of *do*ing into *du* is an example of the invention.

The following table shows the frequency of instances from 150 Facebook statuses according to the parameters and classifications based on *the Jahanzebian* Model of Orthographic Patterns.

Table 3. Frequency of Orthographic Features of CMC

Time Variables	Phonemic Orthography	Phonological Orthography	Morphological Orthography	Simplification	Invention	Omissions	Acronyms/ Abbreviations	Numeric Insertions
2019	18	05	05	10	08	04	03	03
2020	55	25	48	24	28	12	15	22
2021	70	33	52	39	40	44	35	55

Conclusion

The process of change has always and only been associated with living things. In the same way, some languages are termed dead languages and some living languages. English, as a living language, has also undergone a change in many spheres. The analysis shows that English spellings have changed considerably. The change in spellings is gradual but incessant. The present English orthography is altogether different from the initial orthographic system of English. Only a person familiar with literature and linguistics can comprehend this change because, for others, this change may be a complex phenomenon. According to the analysis, Facebook statuses in 2019 are very near to standard English language. Data from 2020 shows that orthographic patterns are changed and are different from the standard English language and the data from 2021 shows a great difference between current orthography and the standard English orthography. Hence, people are prone towards making novel use of orthographic patterns. The new generation wants to save time and likes abridged kind of writing. These compact writing structures are accessed from mobiles, tablets and laptops. Thurlow (2001) comments that the present generation makes simplified use of language. The data analysis seconds his opinion as many examples of simplification are evident. The modern generation is more creative in

the use of language as compared to their predecessors. The modern generation includes all the features in text messages which are mentioned in *the Jahanzebian* Model of English Orthography. Hence the data proves that gradual change has ever been there in the English language. This change can also be the result of time-saving on the part of users and writing in current forms as displayed in data is not only creative but also saves a lot of time, especially on smartphones. Even though predictive text and autocorrect are included in all smartphones now but people still prefer their short and compact style of writing. English orthography has changed since the beginning but Computer-Mediated Communication has revolutionised the change and with Computer-Mediated Communication, this change is extremely frequent. The future may unfold many novel patterns of Computer-Mediated Communication orthographic features and the current compact style of orthography may become a part of the standard English language.

This research leaves some space open for future research in similar areas where diachronic analysis can be applied. In terms of Syntax, Morphology, Semantics, Pragmatics and punctuation, research can be done to detect the gradual change in the English language. For example, a diachronic change in English sentence structure being used online can be very interesting work. At the same time, change in morphology of online discourse can be a novel area of research. Furthermore, we can work on changes in semantics, pragmatics or punctuation in online discourse. Hence more findings can be brought to light following the research patterns used in the current research study.

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