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TECHNOLOGY AND ITS LINGUISTIC FUNCTION

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ABSTRACT

The main purpose of this work is that of explaining that languages, in general, and English, in particular, are systems of communication which are evolving continuously. It means that, the number of words that a particular language counts on is completely different from that number only some years ago, and, it will be completely different with the number of words that the same language will have in some years' time. The main reason for these changes is the Internet and the use of Social Networks, so, the way in which technology is being introduced into the classroom will be also developed. Advantages and disadvantages of these complex processes will be displayed in order to have a more accurate analysis of the whole work.

Key words: languages, systems of communication, Internet, Social Networks, technology.

RESUMEN

El principal objetivo de este trabajo es el de explicar que las lenguas, en general, y el Inglés, en particular, son sistemas de comunicación que se encuentran en continua evolución. Eso significa que el número de palabras con las que cuenta un idioma es totalmente diferente al de hace simplemente algunos años, y será completamente distinto al número de palabras que el mismo idioma tendrá dentro de algunos años. La principal razón de estos cambios es Internet y el uso de las redes sociales, por lo tanto, la forma en la que la tecnología se introduce en las aulas será también desarrollada. Asimismo, las ventajas y desventajas de estos procesos complejos serán explicadas para así contar con un análisis más preciso de todo el trabajo.

Palabras clave: Lenguas, sistema de comunicación, Internet, Redes Sociales, Tecnología

1. PREVIOUS CONCERNS

Through this very first paragraph, three main concepts such as introduction, justification and objectives will be developed. These sections will be useful to frame the whole work and they also serve as a starting point.

1.1 Introduction

Before going deeper in this work, two important definitions will be provided. These definitions will guide us through the whole work, and are likely to pose the base of it. It would be impossible to develop and understand a word about language and communication without having its meanings clear.

The Online Cambridge Dictionary (2017) defines “language” as “a system of communication consisting of sounds, words, and grammar, or the system of communication used by people in a particular country or type of work.”

At the same time, the same Dictionary provides the following definition for “communication”: “the act of communicating with people”.

To link these two concepts, it is necessary to know which elements take part in every single act of communication; for that reason, we will use the classification given by Nordquist (2017) in which they are displayed.

So, taking advantage of both, language and communication definitions, it seems clear that people use different elements, such as sounds, words or grammatical systems to communicate with other people. Throughout this study, some of these elements as well as the changes they have undergone will be developed.

To develop and order all these already-mentioned concepts and thoughts, we will be explaining and developing different linguistic and sociocultural theories which will make us be closer to the main objectives of the whole work, which will be indicated below.

1.2 Justification

In a continuously changing world such as the one we are living in, it seems clear that technology has acquired a principal role as one of the reasons for these changes. So, it can be said that technology has not changed only our academic or

leisure time, but our lives in general. It does not mean that technology has caused modifications in complex tasks but also in day-by-day activities, although we are not often aware of these changes. As Nuez (2013) points out, there are some aspects in our daily life which have been suffering from changes due to technology. Among them, we can find, for example, the way in which we date, watch TV or even the way in which we read.

This means that, if we do not catch up with new technologies, we may find problems when facing such common activities like reading or watching TV, which seems to have changed for the last years. For instance, we do not need to carry books if we do not want to, since they can be read electronically, and, regarding TV, we are able to watch our favourite TV programme wherever and whenever we want to; these two facts seemed impossible not so many years ago.

Furthermore, languages must be seen as an instrument for communication that we are constantly using, so, if languages suffer from changes, it is our task to adapt ourselves and re-acquire new or modified knowledge.

Moreover, it is also important to see which the result of all these processes is, it means, their result is the appearance of new words which are likely to be used in our day by day life.

1.3 Objectives

Therefore, the whole work, including the aforementioned paragraphs such as abstract, introduction and justification, has as main purpose that of fulfilling some objectives. In order to do that, the concepts that have been already mentioned, and other new ones, will be displayed. These objectives try to meet the demand which was posed before by our justification.

These objectives are the following:

- To make an overview about how technology is being introduced into the classrooms
- To express that Internet, Social Networks, and, in the end, technology have the capacity of creating new words and of modifying other ones; so, they all have the power to change an important system as it is a language.

- To explain how SMS and e-mail texting have created both, abbreviations and acronyms.
- To pose advantages and disadvantages in the English language.
- To give concrete examples of new words, abbreviations, acronyms and how some words have changed their meanings.

2. COMMUNICATION AND ITS ELEMENTS

Although communication can be seen as something simple, Nordquist (2017) considers it to be quite complicated, having, moreover, some elements. As a previous paragraph and in order to understand this work fully, it is necessary to establish which elements are present when communication is taking place.

According to Nordquist (2017), the **sender** is the element that starts the process of communication. “In order for that message to be received, the sender must first encode the message in a form that can be understood and then transmit it.”

That information released by the sender is intended to be directed to the **receiver**. Nordquist (*op. cit.*) also adds that the receiver must decode the information previously encoded by the sender.

The **message** is the information which the sender gives to the receiver. However, this message can be transmitted through different means, which are called **channel**. So, if we email someone, the channel would be our laptop or our mobile phone.

Nordquist (2017) considers the **feedback** to be one of the main elements in communication. The feedback is the answer given by the receiver once he or she has received the message. This answer can be oral, written, or even some action.

Furthermore, this author (*op. cit.*) adds that there are two elements which become key ones when dealing with the communication process. These two are **noise** and **context**. The former “can be any sort of interference that affects the message being sent, received, or understood. It can be as literal as static over a phone line or esoteric as misinterpreting a local custom” On the other hand, the latter is defined as “the setting and situation in which communication takes place.” (Nordquist, 2017).

3. NEOLOGISMS

According to Cambridge Dictionary, a “neologism” is “a new word or expression, or a new meaning for an existing word”. So, it is important to remark that when using the term “neologism”, we are not dealing only with strictly new words, but also with words which have suffered from changes and modification in their own meaning.

It is a well-known fact that nowadays there are many words which may be used to express a new meaning. Among many others, the following ones have been chosen as an example, since they belong to the fields of technology and social Networks, the ones that we are most interested in.

Cloud: any of several parts of the Internet that allow online processing and storage of documents and data as well as electronic access to software and other resources

Fail: to make an embarrassing or humorous mistake, be in a humiliating situation, etc., and be subject to ridicule

Friend: to add a person to one’s list of contacts on a social-networking website

Like: to indicate one’s enjoyment of, agreement with, or interest in website content, especially in social media

Meme: a cultural item in the form of an image, video, phrase, etc., that is spread via the Internet and often altered in a creative or humorous way

Ping: to make contact with someone by sending a brief electronic message, as a text message.

Profile: the personal details, images, user statistics, social-media timeline, etc., that an individual creates and associates with a username or online account.

Text: to send a text message

Tweet: a very short message posted on the Twitter website

(20 words that mean more than they did 20 years ago, 2015)

Taking advantage of these new meanings, it must be said that some of the previous words have changed not only their meanings, but also their grammatical categories, so, for example, *friend* has become a verb.

Apart from it, these changes of categories have caused the appearance of imperatives which we were not used to managing with some years ago; so, nowadays we may see forms such as *like me* or *friend me*

As it has been said previously, the term neologism covers both, changes of meaning but also new words.

As the most representative examples of new words, Poh (2017) gives us some examples. Among the most illustrative ones, we find words that we are used to applying in our daily life, such as *selfie*, *twerk*, *phablet* or *hashtag*.

Therefore, and as it has been said before when analysing the objectives of the whole work, the Internet and new technologies have the great ability of introducing new terms on a language so, as long as new technologies keep advancing, English language will be advancing and enlarging at the same time. It means that, for example, someone who learnt English thirty or forty years ago would now be finding big problems to be able to be engaged on a nowadays conversation about, for instance, technology or Social Networks, as some of the words used by the speakers would be completely new for him or her.

3. 1 Word-formation processes

Once we have seen some concrete examples of new words and other ones which have changed their meanings, it is time to concentrate on the processes which make it possible, as well as on how many words, on average, appear each year.

As Bodle (2016) states, English speakers are creating, more or less, 5,400 words per year, but, “it’s only the 1,000 or so deemed to be in sufficiently widespread use that make it into print.”

Bodle (*op. cit.*) speaks about *who*, and *how*, these new words get to our management. About the *who*, he thinks that “we have no idea who to credit for most of our lexicon”, but that “it should come as no great surprise that writers are behind many of our lexical innovations.”

Following his thoughts, there are different processes which are the responsible for the creation and appearance of new terms.

To develop these processes, we will use the classification established by Quirk, Greenbaum, Leech and Svartvik (1985, pp.1515-1585). Their classification establishes, among many other subtypes, the following word-formation processes: derivation, conversion, compounding, and miscellaneous modes.

- **Derivation:** It is the commonest process. They divide this process into “prefixation”, which consists on adding a prefix to the main root, as in *dishonest* and *suffixation*, being the process of adding a suffix to the root, as is the case of, for example, *actress*.
- **Conversion:** “It is the derivational process whereby an item is adapted or converted to a new word class without the addition of an affix.” (Quirk *et al.*, p.1558). They pose the example of the verb *release*, which can also be used as a noun.
- **Compounding:** “A compound is a lexical unit consisting of more than one base, and functioning both grammatically and syntactically as a single word”. (Quirk *et al.*, p. 1567). Among the huge numbers of examples they provide, it can be taken *haircut* or *treadmill*.
- **Miscellaneous modes:** Quirk *et al.* (1985, p.1578) differ up to five different types of miscellaneous modes:
 - **Back-formation:** To define this process, these authors give, firstly, some examples and from them, the process itself is explained. “Pairs of words like advise-advisor, burgle-burglar, inspect-inspector, edit-editor, suggest an identical relationship between the members which from the synchronic viewpoint of the ordinary language user is perfectly correct.” And they add “...we have derived burgle and edit from burglar and editor.” (*op.cit.*)
 - **Reduplicatives:** “Some compounds have two or more constituents which are either identical or only slightly different”. (Quirk *et al.*, p.1579). We are provided with many examples, such as *goody-goody* or *flip-flop*.
 - **Abbreviations:** Quirk *et al.* (1985, pp 1580-1581) establish two types of abbreviations: *clippings* and *acronyms*; the former are said to be used in familiar contexts “by shortening them, often to a single syllable” (Quirk *et al.*, p.1580). We find *ad*, for advertisement, or *lab* from laboratory.

Acronyms “are words formed from the initial letters of words that make up a name”. We can find *NATO*, which stands for “North Atlantic Treaty Organisation”, or *UNESCO*, “United Nations Educational, Scientific and Cultural Organisation.”

- **Blends:** “They are formations in which a compound is made by <blending> one word with another.” (Quirk *et al.*, 1985, p.1583) There are common examples such as *heliport*, from helicopter + port, or *smog*, from smoke + fog.
- **Familiarity markers:** “We bring together here types of abbreviation with affixation that have in common a highly informal tone and mode of referring that indicates close community what is referred to.” (*op. cit.*, p.1584). We may find some common words which belong to this type of process, such as *hippy* or *Aussy*.

4. EMAIL. A LETTER WITH NO PAPER.

It is needless to say that the way in which we communicate nowadays is completely different from the one we did not so many years ago. When we refer to communication we are dealing with different fields, it means, informal and formal communication, communication with employment purposes. And, as it has been already mentioned, these changes in communication are not finished at all.

But, when were emails born? Baron (1998, p.140) tried to answer this major question. “Email as we know it today has its more immediate roots in several intertwined developments in the 1960s and 1970s, most of whose origins were in the service of America’s national defense”. So, during the Cold War, Baron also confirms that emails were the result of “exploring how computers could be used for transmission of information in case of nuclear attack” (Baron, 1998, p.141). Therefore, it is interesting how a device, which was primarily devoted to help with war issues, has become an essential tool in our times.

It is universally acknowledged that emails count on a huge amount of possibilities nowadays. “Email has grown from a government-initiated, academically-implemented system for sharing research information into an international alternative to long distance phone calls, interoffice memos and face-to-face encounters.” (*op. cit.*, 142).

The appearance of emails posed such a kind of shock that there were some linguists who doubted about which consideration emails had to be given. "It might help to consider the email as a written verbal communication rather than real writing." (Shapiro and Anderson, 1985, p.21).

Crystal (2001) goes deeper when dealing with the linguistic characteristics of an email. He notes that there is not major difference with traditional writing, beyond the obvious ones of the channel and immediacy. This author does highlight the use of capital letters to draw the receiver's attention in the subject of the email, the part which is given the most attention from him:

The language of the subject line, however, has received a great deal of attention. Because it is the first thing that the recipient receives, along with the sender's name, it is a critical element in the decision-making over what priority to assign to it or whether to open it at all. (*op. cit.*,97)

According to Crystal (2001), the main innovation that email caused was the introduction of at sign (@), innovation which is very common currently. It started as a way of introducing senders' and receivers' email address, and now it counts on with other several uses, which will be displayed later when dealing with Social Networks.

4. 1 Misspelling and Punctuation.

These two issues, misspelling and punctuation, were raised by Crystal (2001) as two of the main differences between traditional writing and emails. "They occur, regardless of the educational background of the writer, in any situation where there is fast typing and a lack of editorial revision" (p.111). Therefore, there is no evidence to think that these mistakes are made due to age or social reasons.

Furthermore, Crystal (*op. cit.*) says that misspellings are not able to interrupt the whole communicative process, and, poses the following examples to explain his thoughts. "No-one is likely to be misled by such e-lines as the following: <I'll procede* with the practical arrangements> or <Hav eyou* got the tikcets* yet?" (p.111). It seems clear that the previous mistakes do not private ourselves to understand the whole message, although the noise (communication element previously analysed) is doing its job. Nonetheless, not all linguists think the same; the following quote poses a great criticism of Crystal's thoughts:

For every grammar mistakes in an email message there are an average of three spelling mistakes. If you think that you are saving time by not correcting spelling errors, think again. The time saved not checking your spelling is multiplied by the time it takes for a reader to decipher the misspelled word. Misspelled words jar your readers' concentration by diverting attention away from the idea you are expressing. Not only are misspellings annoying and confusing, they also cause the reader to question your credibility. Misspellings make you look sloppy or, worse yet, incompetent. (Angell and Heslop, 1994, p.83).

Talking about punctuation errors, the same authors have a similar opinion to the one having to do with misspellings. "Underuse of punctuation in e-mail can impede communications" (*op. cit.* p.99). On the contrary, Crystal (2001, p.113) ensures that punctuation errors have not the ability to make communication impossible, and that, their importance is very connected with the existing relation between the sender and the receiver.

5. SMS. THE GREAT REVOLUTION

Once the impact that emails caused has been analysed, it is time to deal with SMS. SMS stands for "Short Message Service" and it is not only a noun, but also a verb. Consequently, we may find expressions which are similar to friend's, such as *SMS me*. This type of communication was the responsible for a tremendously great revolution in both, our lives, but also in languages in general.

Nowadays, it is even difficult to find someone who sends an SMS indeed, if we search on our SMS's inbox, most of the text messages have to do with advertisement or with banks and mobile phones companies.

But, if we look back not some many years ago, things were completely different. SMS had their peak on the first years of this century.

According to Crystal (2008, p.4), in the year 2001, and only in UK, a total of 12.2 billion of SMS were sent. However, that was only the beginning because this number reached 25 billion in 2004, and, 45 billion only three years later. And, if we take these numbers to the world, data speaks for itself. 17 billion SMS were sent in the year 2000, and, a trillion SMS in 2005.

Nevertheless, and as it has just been mentioned, the use of SMS has plummeted in recent years. The online article ‘The end of an era. Goodbye SMS’ asserts that “a business which once was considered to be the greatest innovation in the telecommunications industry is going to cease. The Short Messaging System (SMS) faces a sad end.” (2012, p.1)

As it has already been said, despite being less used than a decade ago, SMS caused a big revolution in language; let us analyse the reasons, and the consequences.

Crystal (2008, p.6) maintains that the main reason of the changes in language introduced by SMS was just due to a “space reason”. It means, only 160 characters fit in a SMS, so, as long as the words would become shorter, people would be able to give more information using the same space. Besides, as it is well known, we are charged for every SMS we send; consequently, we are also saving money.

5. 1 Distinctive features

Talking about language itself, Crystal (2008, p.37) ensures that there are some “distinctive features” that make SMS be different from other ways of communication. Nevertheless, he claims that “none of them is in fact linguistically novel. In each case we can find antecedents in earlier language use” (*op. cit.*). These “distinctive features” are described by this author as follows:

Logograms and emoticons

Crystal defines Pictograms and Logograms as “the use of single letters, numerals, and typographic symbols to represent words, part of words, or even noises associated with actions.” In the table below, some examples of logograms are displayed:

b	➤	be
2	➤	to
@	➤	at
x	➤	kiss

Table 1.Examples of logograms which are used alone. Taken from Crystal (2008, p.37)

“When graphics units are used in this way, they are technically known as logograms or logographs” (*op. cit.*). Nonetheless, logograms can be used in combination too, as it is shown in the following table:

b4	➤	before
@oms	➤	atoms
2day	➤	today
xxx	➤	kisses
zzz	➤	sleeping

Table 2: Examples of logograms used in combination. Taken from Crystal (2008, p38)

Crystal points out that logograms are totally connected to pronunciation, whereas when using emoticons, “the meaning is entirely a function of the shape of the symbols.” (Crystal, 2008, p.38). The author gives the following ones as examples of **emoticons**

: -)	➤	smile
; -)	➤	wink
: -@	➤	screaming

Table 3: Examples of emoticons. Taken from Crystal (2008, p.38)

The author also makes an analogy between these two features and Egyptian writing, in the sense of using characters to represent sounds or even emotions, so, “there is actually nothing novel at all about such text messages.” (*op. cit.*, p.41)

Initialisms

According to Crystal, they are “the reduction of words to their initial letters” (*op. cit.*). We are used to finding them in relation to proper names, such as BBC or NATO, but, what it is happening in texting “is that everyday words, rather than proper names, are reduced to their initial letters”. There are different structures which are likely to suffer from Initialisms; Crystal points out the following ones:

- **Individual words**

N	➤	no	W	➤	with
G	➤	grin	Y	➤	yes
Q	➤	queue			

Table 4: Examples of initialisms from individual words. Taken from Crystal (2008, p.42)

- **Elements of compound words**

GF	➤	girlfriend
DL	➤	download
W/E	➤	weekend

Table 5: Examples of initialisms from combined words. Taken from Crystal (2008, p.42)

- **Words in phrases**

CWOT	➤	complete waste of time
NP	➤	no problem
FTF	➤	face to face
LOL	➤	lots of laughs
AML	➤	all my love

Table 6: Examples of initialisms from words in phrases. Taken from Crystal (2008, p.42)

- **Words in elliptical or whole sentences**

JK	➤	just kidding
SWDYT	➤	so what do you think?
MMYT	➤	mail me your thoughts
CMB	➤	call me back

Table 7: Examples of initialisms from words in elliptical or whole sentences. Taken from (2008, p.42)

- **Words in expostulations**

OMG	➤	oh my god!
AB	➤	ah bless!

Table 8: Examples of initialisms from words in expostulations. Taken from Crystal (2008, p.42)

Apart from all these examples, which were introduced thanks to texting, Crystal adds many more instances which, similarly with logograms, come from centuries ago. As most well-known, it can be highlighted the Latin initialism *pm* (*Post*

Meridiem), which was “first recorded in English in 1666” (*op. cit.*, 43). From the nineteenth century, English has taken *RIP* (*Rest In Peace*) and *ND* (*No Date*). And, from the early years of the twentieth century, we find *AKA* (*Also Known As*) and *ASAP* (*As Soon As Possible*).

Omitted letters

We find this feature when “texters shorten words by omitting letters from the middle or dropping a letter at the end.” (*op. cit.*). Crystal says that vowels are more likely to be omitted, but “final” consonants are often dropped too, as are silent consonants. Here we find some examples given by this author.

plsed	➤	pleased	msg	➤	message
bunsn brnr	➤	bunsen burner	txtin	➤	texting
messin	➤	messaging	getn	➤	getting
comin	➤	coming	englis	➤	English
rite	➤	write	xlnt	➤	excellent

Table 9: Examples of omitted letters. Taken from Crystal (2008, p.46)

Nonstandard spellings

According to Crystal, nonstandard spellings are “certainly distinctive and one of the main irritants to people who do not like this genre” (Crystal, 2008, p.48). He provides us with the following examples, which are commonly used nowadays

cos, cuz	➤	because	fone	➤	phone	luv	➤	love
omigod	➤	oh my god	ova	➤	over	shud	➤	should
skool	➤	school	sum	➤	some	thanx	➤	thanks
thru	➤	through	wot	➤	what	ya	➤	you

Table 10: Examples of nonstandard spellings. Taken from Crystal (2008, p.p. 48-49)

Besides, Crystal shows two examples which can be considered the result of “informal or regional speech.” (Crystal, 2008, p.49)

gonna	➤	going to
wanna	➤	want to

Table 11: Examples of nonstandard spellings due to informal or regional speech. Taken from Crystal (2008, p.49)

Nonetheless, similarly to the previous features, this one is not new at all. Indeed, according to Crystal (2008), “cos” comes from 1828, “wot” from 1829 and “luv”, for example, comes from 1898.

In addition to this, Crystal affirms that these nonstandard spellings are even used by famous writers too, such as Charles Dickens, Mark Twain, Walter Scott, Emily Bronte, Thomas Hardy or D. H. Lawrence.

So, despite not being originally introduced by SMS and mobile phone’s usage, it must be highlighted that their use has fostered the appearance of nonstandard spelling in our lives.

Shortenings

Crystal defines shortenings as the process in which “a word is shortened by omitting one of its meaningful elements, usually at the end, but sometimes at the beginning” (Crystal, 2008, p. 51). This author also points out that one of the words which are often shortened are the days of the week: Mon(day), Tues(day), Wed(nesday), Thurs(day), etc. and the same happens with the months of the year: Jan(uary), Feb(ruary), Dec(ember), etc.

Apart from these previous ones, Crystal sets many other examples of shortenings, such as the ones below:

absol(utely)	ack(knowledge)	approx(imately)
arr(ive)	biog(raphy)	col(lege)
diff(erence)	doc(tor)	esp(ecially)
etc(etera)	gov(ernment)	incl(uding)
max(imum)	mob(ile)	perh(aps)
poss(ible)	prob(ably)	rad(ical)

Table 12: Examples of shortenings. Taken from Crystal (2008, p.51)

Crystal (2004) says that the origins of some of these shortenings date to the year 1711. However, he (2008) also adds that when using shortenings, it is necessary the existence of a “prior knowledge” among all the participants taking part in the communication process.

Thus, as it has been mentioned, SMS causes a true revolution in terms of Linguistics; not only adding some new processes and words, but also reviving some processes which are not new at all.

Thanks to Crystal's work, SMS can even be compared with Egyptian documents, and closely related to world-famous writers such as Brontë or Twain. Obviously, neither people from Egypt nor Emily Brontë used SMS, but, they can be considered as a kind of introducers to these previously developed features.

6. SOCIAL NETWORKS AND WEB SURFING

It is needless to say that Social Networks, including communication systems such as *Whatsapp* or *Telegram*, have become universally accepted elements of our lives. Many of us could not live without our laptops or mobile phones. However, what do we use our electronic devices for? Are we always making phone calls when using mobile phones? The answer to these questions is, clearly, no.

Prior to the introduction of elements and words we use thanks to social networks and the use of web browsers, let us show some data about their use.

Possibly, we all have a profile in one (if not more) social network, but, which is the most used one? According to Chaffey (2017), in order to obtain real data, the concrete number to be considered must be that of active users, and not number of users. So, taking advantage of the following chart, provided by the webpage Statista.com (2017), we can see that Facebook is the one leading the ranking of active users, with more than two thousands million active users. The “landslide victory” over, for example, Twitter, is clear, having the latter around three hundred millions of active users.

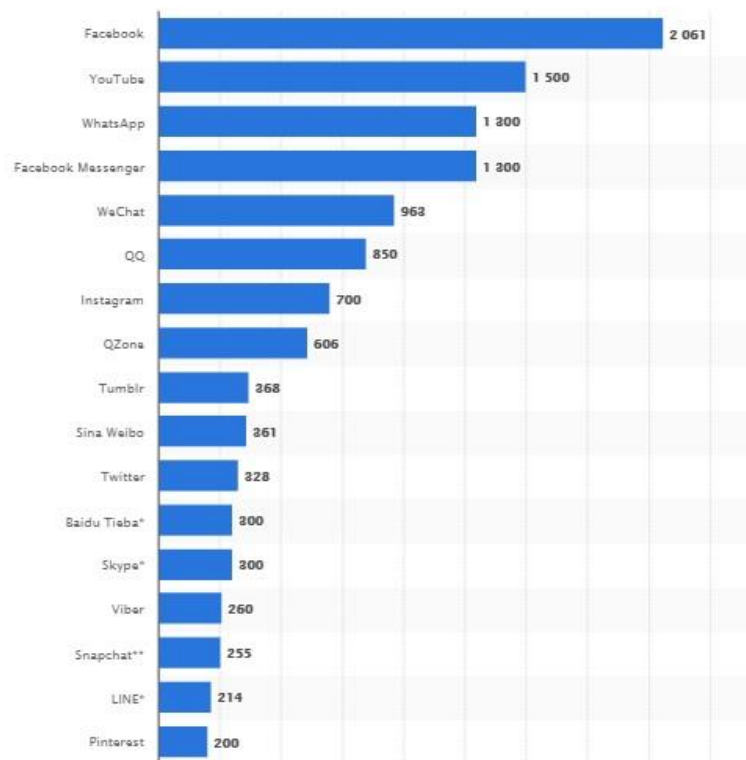


Chart 1: Leading social networks worldwide as of September 2017, ranked by number of active users (in millions)

Therefore, and despite the fact that the biggest revolution was caused by the use of SMS, it must be said that, thanks to this massive use of social networks, and, of the Internet in general, new elements and words had to be brought by their users, but, which are these new words? Stec (2017) provides us with a great glossary of words which are closely related to technology. We will use her glossary together with the definitions provided by the Oxford Online Dictionary (2017) in order to show the most common words on Social Networks and the Internet.

- **Blog**: “A regularly updated website or web page, typically one run by an individual or small group, that is written in an informal or conversational style.”

- **Community Manager**: Due to the fact that these two words do not appear together on dictionaries, but their use is commonly accepted, the following definition is the one provided by Stec (2017): “The community manager is responsible for building and managing the online communications for a business in an effort to grow an online community.”

- **DM**: It stands for Direct Message. “A private message sent on social media, especially *Twitter*”. It means, expressions like “please, send me a DM for further

information” can be very useful nowadays, but used some years ago, we could probably be misunderstood, since the use of Twitter was not as general as it is nowadays.

- **Follow**: “Track somebody or something by subscribing to their account on a social media website or application”. From this one, we can also highlight ‘follower’, which is the one carrying out the action of ‘follow’.

- **GIF**: “A lossless format for image files that supports both animated and static images”. GIF is another example of Initialism which stands for “Graphics Interchange Format”. (Stec, 2017)

- **Podcast**: “A digital audio file made available on the Internet for downloading to a computer or mobile device, typically available as a series, new instalments of which can be received by subscribers automatically.”

- **RT**: “Retweet”. This very particular example can be used both, as a noun or as a verb, meaning that we can ask someone for a RT, such as in the case: *please, RT me, I need to become more popular*; or as a noun, as in the sentence: *My very last tweet has already one hundred RT’s*.

- **Selfie**: “A photograph that one has taken of oneself, typically one taken with a smartphone or webcam and shared via social media.”

- **Trending Topic**: We will be using again Stec’s (2017) definition, since we are not dealing with just a word; and, consequently, this expression does not appear on dictionaries. “Trending topics refer to the most talked about topics and hashtags on a social media network.”

- **Troll**: “A person who makes a deliberately offensive or provocative online post.”

- **Viral**: “An image, video or piece of information which circulates rapidly and widely from one Internet user to another”.

If we take into consideration the previous paragraphs of this work, some processes previously explained also appear in these words, such as that of Initialism, as in the case of DM (Direct Message), or Neologisms, for example the word *follow*,

which has suffered from a change on its traditional meaning of chasing someone or something, as well as *troll* or *viral*.

Apart from the appearance of words, it must be pointed out the use of the hash sign; this sign is, actually, not very used in traditional writing, but, dealing with technology, it could be even one of the most used. Its use leads to the creation of hashtags. The word “hashtag” is defined by the Online Oxford Dictionary, as follows: “A word or phrase preceded by a hash sign (#), used on social media websites and applications, especially Twitter, to identify messages on a specific topic.” In addition to their linguistic use, they are also very useful to classify and look for specific information on social networks where, without hashtags, it would be very difficult to find.

Dealing, again, with the processes previously explained throughout this work, hashtag is an example of compounding, being the result of joining hash and tag.

7. HOW IS TECHNOLOGY BEING INTRODUCED INTO CLASSROOMS?

Throughout this master’s dissertation, so far, we have been dealing with general linguistic processes and how they work in a general way. Now, it is time to go deeper and see how all this information is taken to classrooms.

Similarly to our lives, teaching and learning processes have also changed sharply. Nevertheless, this change is not uniform at all because we may find classrooms where technology is totally implanted, but we can also find classrooms in which the teacher still writes with chalk on a board. The implementation of technology in educational systems depends on a huge range of factors; among them, we can highlight economic reasons, students’ and teachers’ preferences or even political decisions. But, in general terms, education has been modified in recent years due to the introduction of technology and technological devices to a greater or lesser degree.

According to the online article “The evolution technology in the classroom” (2017), “technology’s importance in the classroom is evident now more than ever”. But this phenomenon is not completely new, it has been developed for the last years. In accordance with NCES, which stands for “National Centre of Education Statistics”,

eight years ago, in 2009, there were a 97% of classrooms in United States that had, at least, one computer.

Li, Wong, Cheung, Lam and Ng (2015) cite Yue (2015) who states that education has become “much more flexible than it used to be” and add that flexible education “must be student-centred”. One of the main modifications caused by the implementation of technology in the teaching-learning process is the way in which students are able to communicate with teachers, and the other way round. Yue (2015) affirms that technology makes teachers be “always available, in terms of time” and “friendly, in terms of giving feedback to students”. Thus, communication is now much more global than it was some decades ago, since a student can enrol him/herself on a course which may be developed on a university which is thousand kilometres away.

Just as mobile phones are widely used outside classrooms, it is very strange to see them inside classrooms, or, at least, with a pedagogical purpose. In connection to this, Li *et al.* (2015) cite Wong, Wang, Keung and Kwan (2015) who introduce the concept of “Mobile Learning” or “M-Learning”, and define it as “the exploitation of ubiquitous handheld technologies, together with wireless and mobile phone networks, to facilitate, support, enhance and extend the reach of teaching and learning”. As it has been said before, both, introduction and use of mobile phones inside classrooms, depend on many things. However, as Wong *et al.* (2015) point out “many schools recognised that mobile devices are important learning tools for a vast range of classroom application”.

It is Hardison (2013) who introduces different ways of using mobile phones inside classrooms. He thinks that mobile phones can be used in classrooms with four main purposes: collaborate, communicate, create and coordinate.

To **collaborate**, Hardison gives the idea of creating a group in “Whatsapp” in which students would participate as a “brainstorming”. This author thinks that, among other positive aspects, it can be pointed out the instantaneity that an application like *Whatsapp* gives to a group.

In order to **communicate**, Hardison suggests creating a *Twitter* account for the class in which students will be publishing the assignment they are doing in class. So, the main purpose is to have all the activities recorded in the same place;

moreover, it would be very easy for students to see all these assignments and activities.

With the purpose of **creating**, Hardison says that one tool which is highly serviceable is that of creating a blog, or using “Prezi”. These tools foster some important processes such as teamwork, creativity and imagination.

Lastly, to **coordinate**, Hardison ensures that platforms such as *Wikis*, *Google Drive* or *Dropbox* make working be easier, since they serve as a “virtual shelf” which is “open 24/7”.

All these methods introduced by Hardison would fit, maybe, in an “ideal environment”, but, the reality is not always like this. Unfortunately, not all schools count on enough money to implement these means, not all teachers are keen on this way of working, and, even not all educational systems are prepared to work like this. There is much work to do in order to be able to implement some of these techniques, which make the process of learning much more reachable and appealing.

7. 1 Main drawbacks and barriers

As it has been mentioned above, the introduction of technologies in the classroom has many advantages and positive aspects, which make them really useful. However, everything is not positive, because using technologies in the classroom also involves some problems and drawbacks, which will be analysed in this section. Purcell, Buchanan and Friedrich (2013) state that one of the main problems derived from the use of technologies is “ambiguous line between “formal” and “informal” writing and the tendency of some students to use informal language and style in formal writing assignments.” Furthermore, Lenhart, Arafeh, Smith and Macgill (2008) introduce a research which was carried out by **the Pew Internet & American Life Project and National Commission on Writing**, which delivered, among many others, the following results which were highlighted by these authors:

- “50% of teens say they sometimes use informal writing styles instead of proper capitalization and punctuation in their school assignments.”
- “38% say they have used text shortcuts in school work such as “LOL”.”
- “25% have used emoticons (symbols like smiley faces) in school work.”

John (2013) goes even deeper and grades these problems as “atrocities” and adds that other “enormous” problem is that of “plagiarism”, since students often take information they get from the Internet as theirs, and this is a problem that “must be immediately nipped.” Furthermore, Li *et al.* (2015, pp.201-205) cite Au, Lam and Chan (2015) who establish three main “barriers” which make the introduction of technological devices into classrooms difficult. These barriers are “technological difficulties”, “rapid changing environment” and “individual concerns”. Let us now to explain them.

As technological devices, they say that, despite the fact that hardly every student has a mobile phone, their configuration, in terms of, both, “hardware and software vary significantly”. Besides this, they also add that “there are devices which may have some options or applications disabled” (*op. cit.*).

Other huge problem is that of “security and privacy issues”, since, students are often under eighteen, so we must be very careful with the “digital footprints” that, especially students trace.

With the expression “rapid changing environment”, they express that technological devices are continuously evolving, so, once all the staff has got used to working in a given way, “the technological device which is being used might get obsolete” (*op. cit.*).

To conclude, these authors also highlight individual concerns in terms of “teachers’ and students’ perspective”. As it has already been said throughout the work, this way of working with students depends very much on “staff’s attitude”. It means, teachers have to work to be updated with the latest innovations brought by technology, and they also “must find how to apply them” (*op. cit.*). But it is not only teacher’s duty, students also need “an innovative and creative work outside the classroom” (*op. cit.*) to be able to keep the class’ progress and not get lost.

8. RESEARCH STUDY

8. 1 Introduction

In order to reinforce and implement some of the information which has been already displayed, let us now get deeper by conducting a research study. This research focuses on the words *tweet*, *selfie*, *hashtag* and *Facebook*. The innovative

nature they count on makes easier to appreciate the rise in their use and will make us realise that these words did not exist some years ago.

This research has been conducted by using three different online corpora, which are completely free after registration. These corpora were created and developed by Mark Davies, who is a professor at Birmingham Young University, and are the following ones:

- The Corpus of Contemporary American English (COCA)
- The British National Corpus (BYU-BNC)
- The Corpus of Global Web-Based English (GloWbE)

Each of the corpora above will be used to make a different research, and there will be a diagram to make the examples more observable. Previously, some data of each corpus are going to be shown.

8.2 Corpora

The Corpus of Contemporary American English (COCA) is the biggest online free corpus and count on more than 520 million words. Obviously, and as its own name shows, it is based only on American English. It dates from 1990 to 2015. It holds approximately 20 million words from each year and it is equally divided among five main registers: spoken, fiction, popular magazines, newspapers and academic texts.

In addition to this, we also find the British National Corpus (BYU-BNC) which is smaller, counting on 100 million words approximately. As well as the previous one, it divides its words among the same genres. This one is focused on British English, so, by using these two corpora we will be able to find differences between English and American English too.

Nevertheless, English is not restricted only to Great Britain and United States, but also to many other countries and cultures; that is why we will be also using the Corpus of Global Web-Based English (GloWbE), which allows us to have a wider and deeper perspective.

GloWbE contains about 1.9 billion words and will permit us to establish differences between the areas in which each word is used; this feature will be one of the objects of study within our research.

8.3. Analysis and results

Once the corpora which will be applied have been introduced, let us now to start analysing the previously mentioned words: *tweet*, *selfie*, *hashtag* and *Facebook*.

There will be two results displayed for each word: the total number of tokens and the number of tokens per million. The most used word is *Facebook*, which appears the most, as it can be deduced, within the Corpus of Global Web-Based English (GloWbE), due to its technological character. It must be highlighted that, very surprisingly, three of these four words (*selfie*, *hashtag* and *Facebook*) does not appear on the British National Corpus (BYU-BNC), whereas do appear on the Corpus of Contemporary American English (COCA). This difference is highly remarkable, as both corpora are used to establish differences between British and American English.

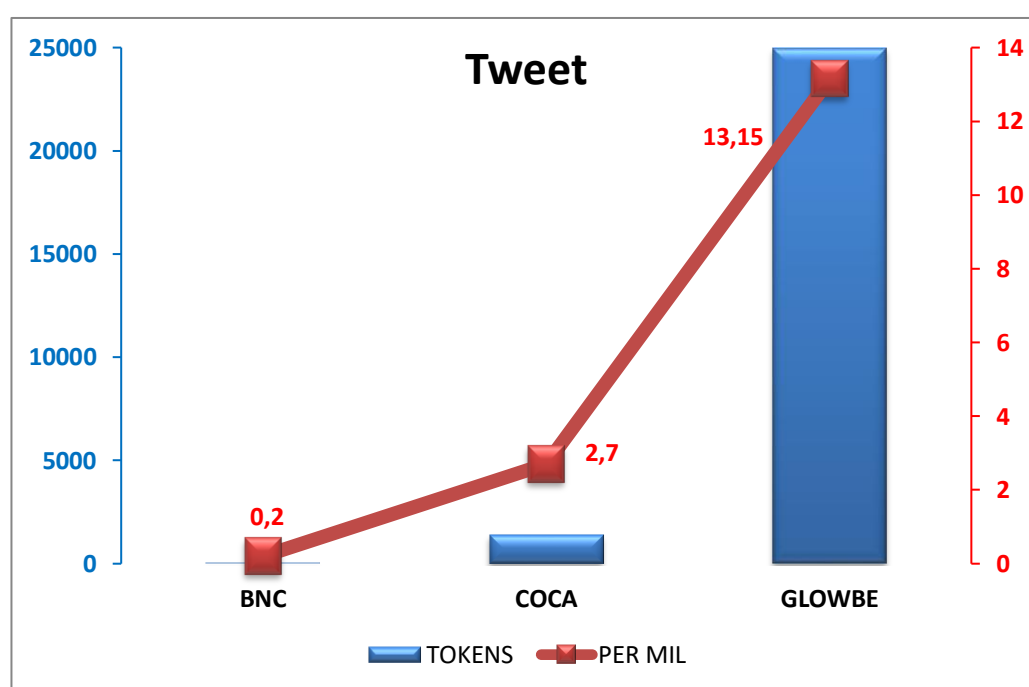


Chart 2. Total tokens and tokens per million of the word *Tweet* in COCA, BNC and GLOWBE

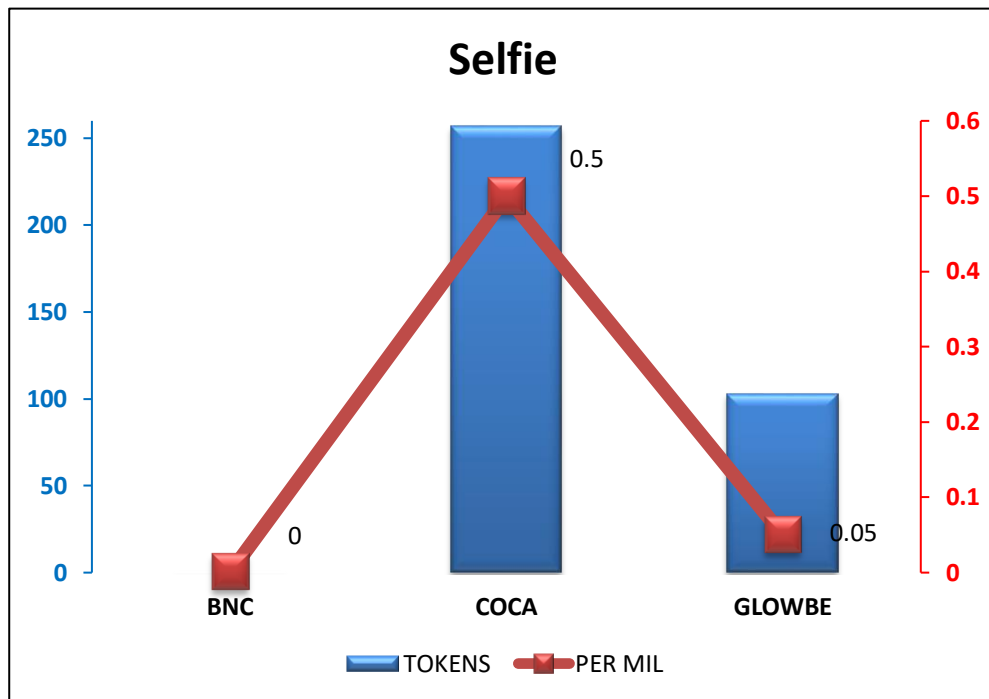


Chart 3. Total tokens and tokens per million of the word Selfie in COCA, BNC and GLOWBE

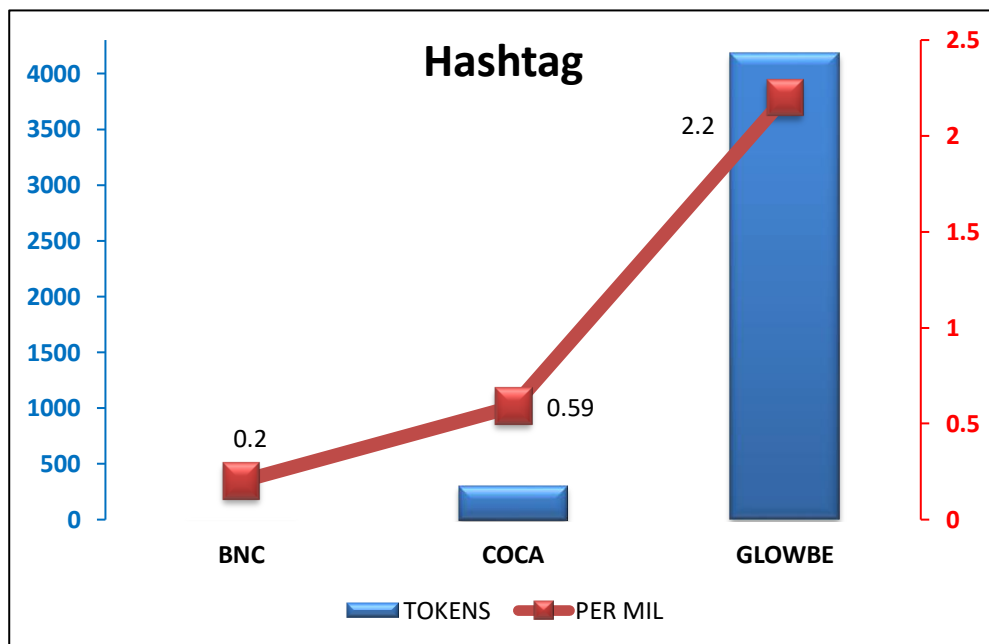


Chart 4. Total tokens and tokens per million of the word Hashtag in COCA, BNC and GLOWBE

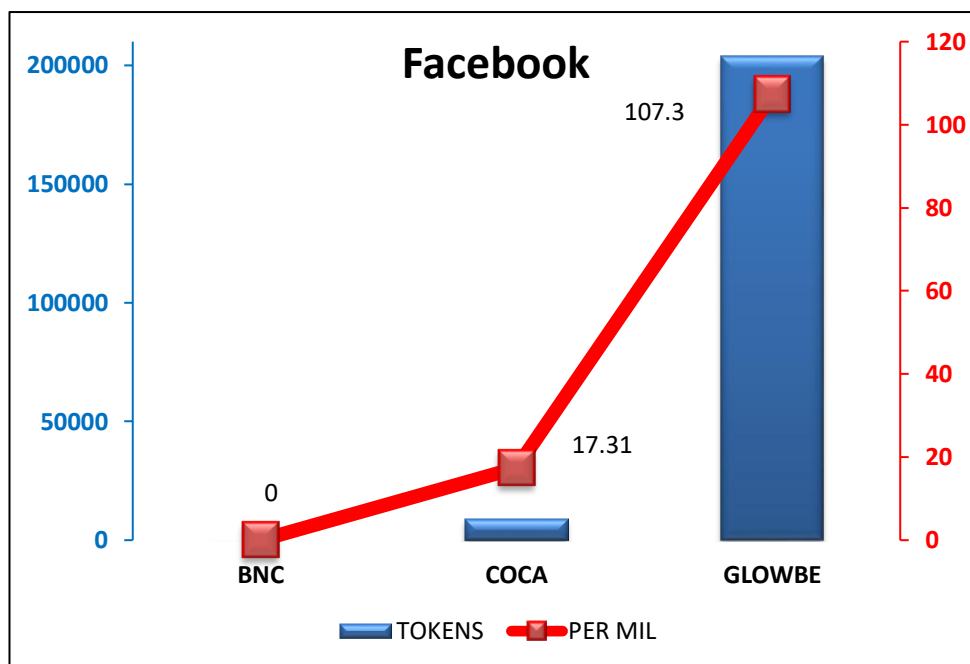


Chart 5. Total tokens and tokens per million of the word *Facebook* in COCA, BNC and GLOWBE

8.3.1 COCA

Dealing with this corpus, which works with American English, it can be pointed out that the word *Facebook*, as it has been shown above (chart 5) has a significant advantage in terms of coincidences or *tokens*, with 9000 coincidences.

Furthermore, this corpus has been used to analyse two different variables. On the one hand, the register in which each word is used, and, on the other hand, in which period of time these words tend to appear. Let us now to analyse both:

Regarding the former, three of the four words (*tweet*, *selfie* and *hashtag*) appear the most in spoken texts. Particularly, this dominance is much clearer in *tweet* and *selfie*, with 836 and 158 coincidences respectively. Dealing with *Facebook*, data equalise and it appears hardly with the same frequency in spoken texts, magazines and newspapers.

As far as periods of time concern, unsurprisingly, these four words have an insignificant presence until the year 2010. Indeed, until the year 2005, the only one which has appeared is *Facebook*, and only two times. However, from 2010 on, these concepts started to be highly common and became elements of our day by day speech.

To put it briefly, these data confirm the general thought about the novelty and the mainly informal use of these words. For instance, and to take a concrete example, *Facebook* goes from 0 to more than 7000 in a period of twenty years (1990-2010). We will use the charts (6-13) below to display this data easily.

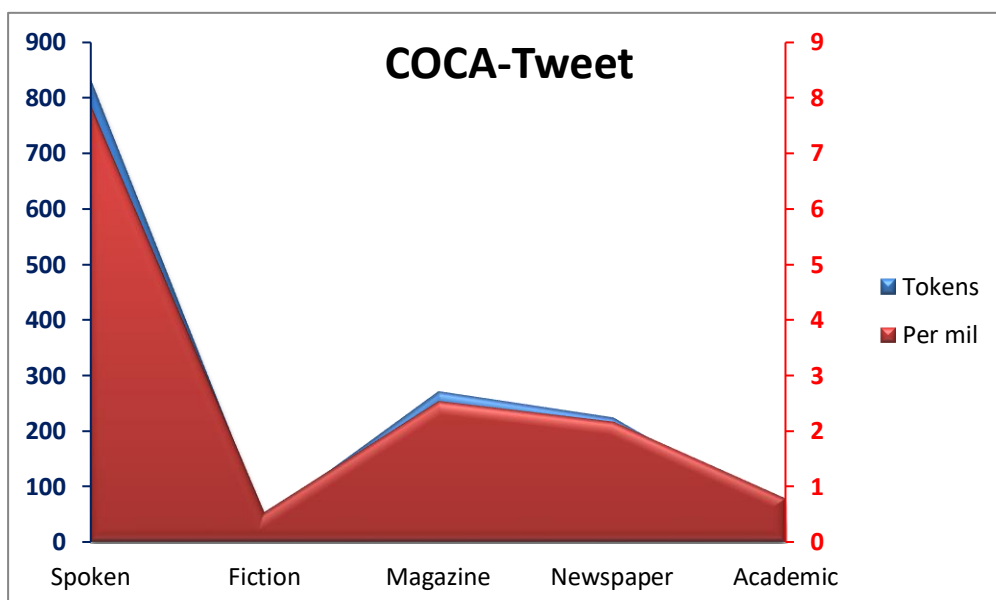


Chart 6. Total tokens and tokens per millions of the word *Tweet* in COCA Corpus, regarding type of text.

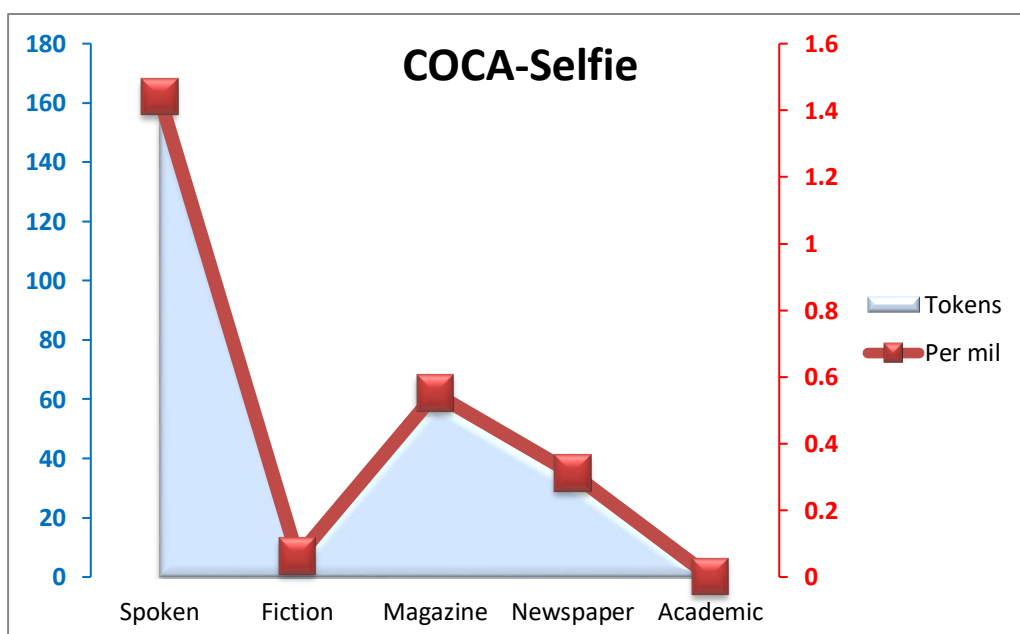


Chart 7. Total tokens and tokens per millions of the word *Selfie* in COCA Corpus, regarding type of text.

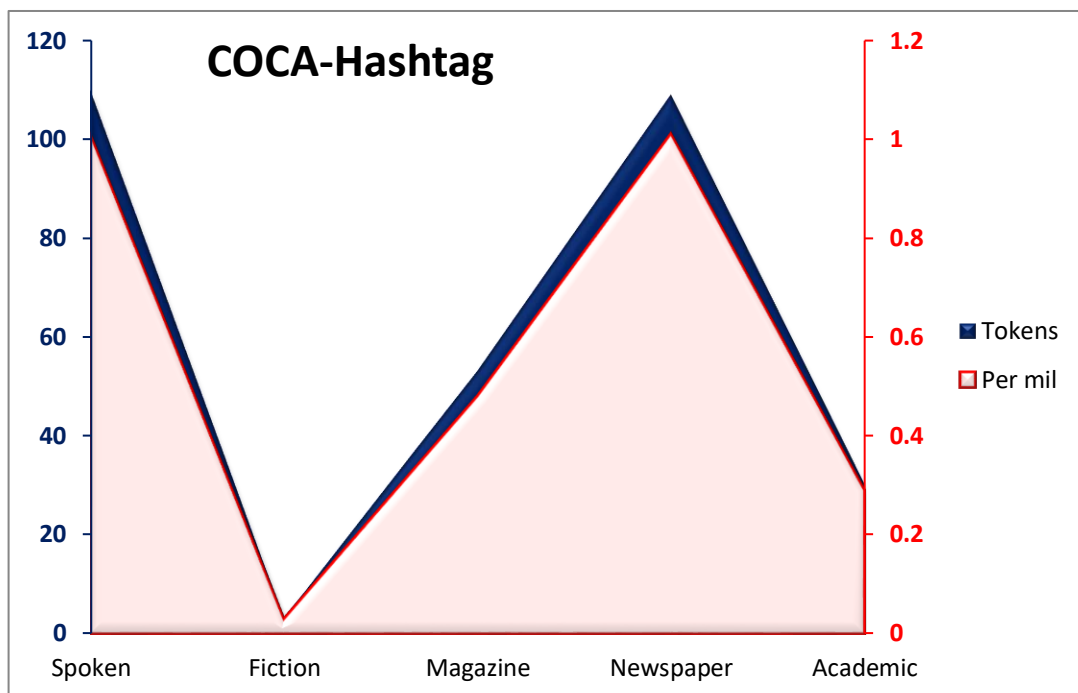


Chart 8. Total tokens and tokens per millions of the word *Hashtag* in COCA Corpus, regarding type of text.

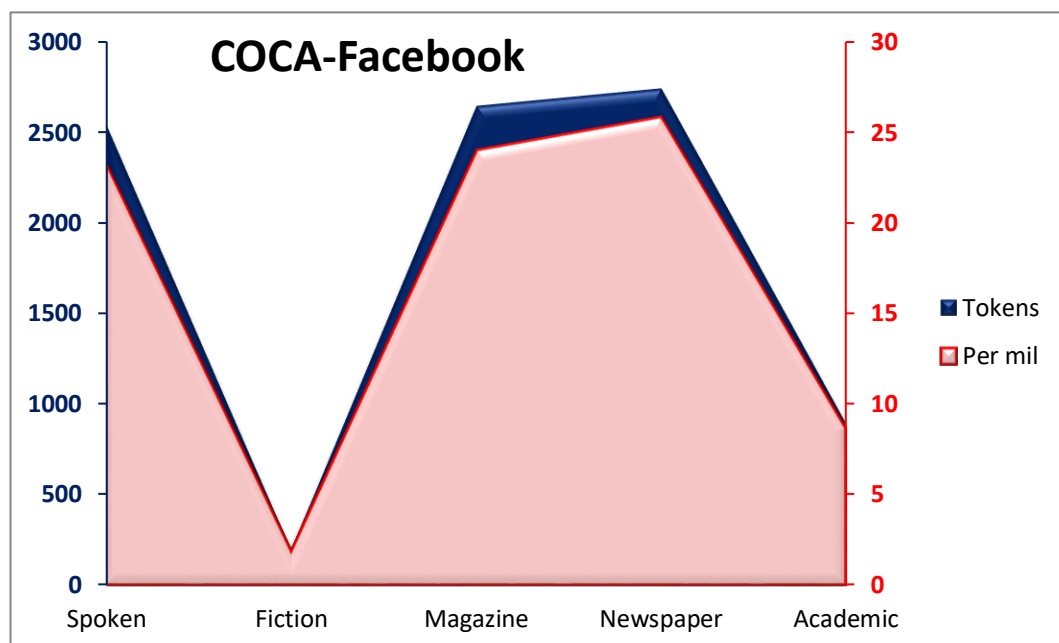


Chart 9. Total tokens and tokens per millions of the Word *Facebook* in COCA Corpus, regarding type of text.

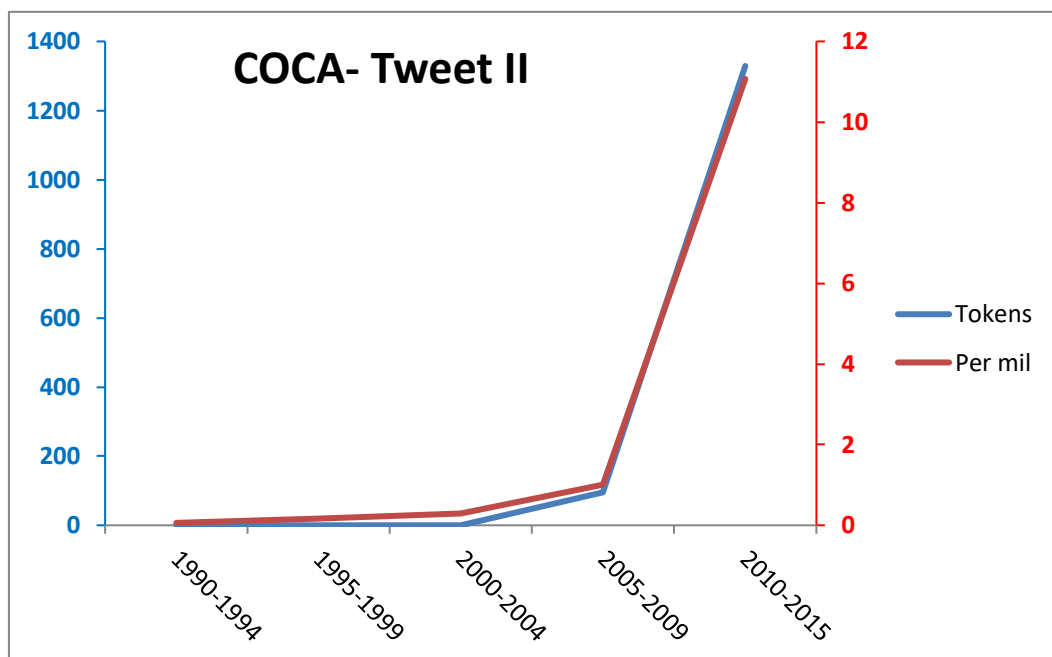


Chart 10. Total tokens and tokens per millions of the word Tweet in COCA Corpus, regarding periods of time.

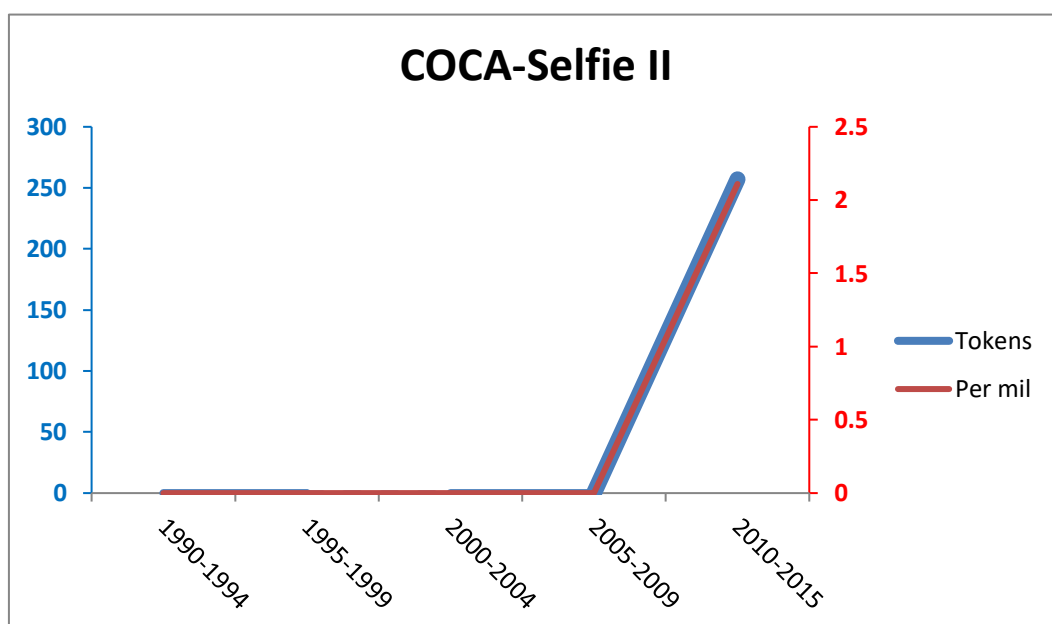


Chart 11. Total tokens and tokens per millions of the word Selfie in COCA Corpus, regarding periods of time.

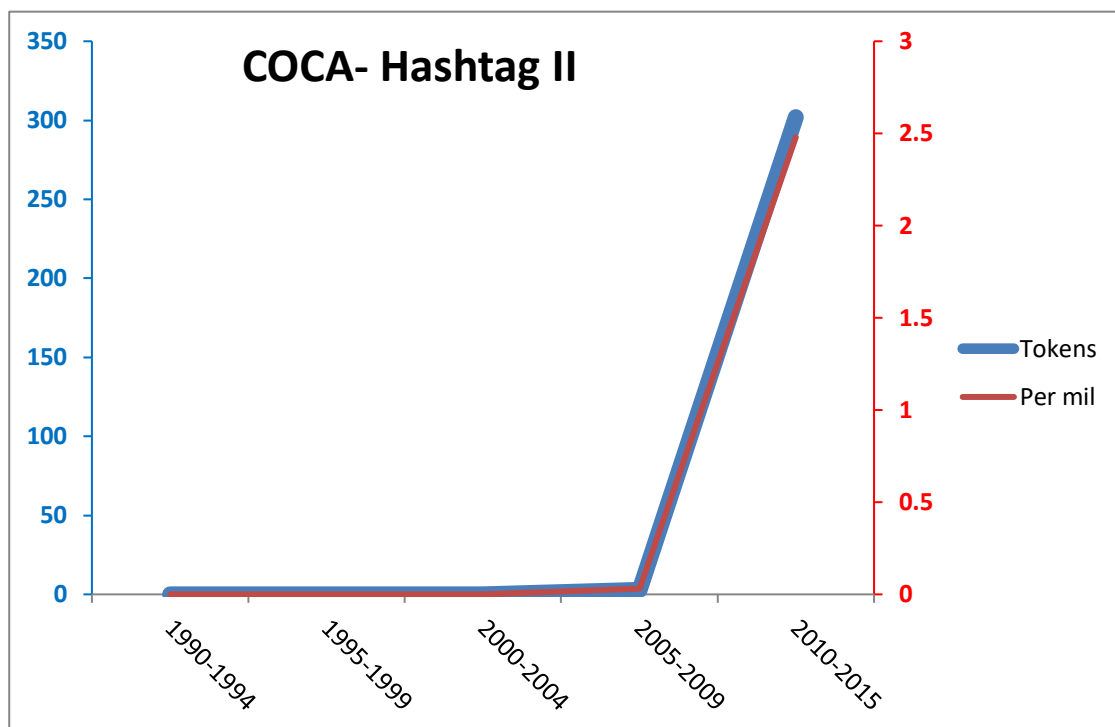


Chart 12. Total tokens and tokens per millions of the word *Hashtag* in COCA Corpus, regarding periods of time.

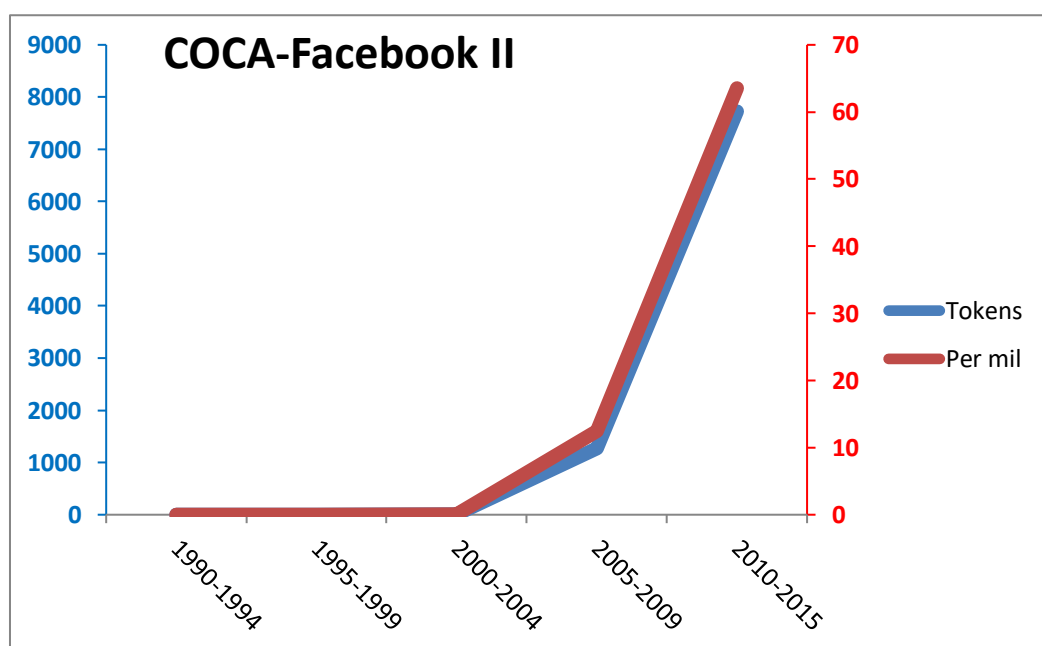


Chart 13. Total tokens and tokens per millions of the word *Facebook* in COCA Corpus, regarding periods of time.

8.3.2. BNC

As it has been stated within the previous paragraphs, three out of the four words which are being analysed in this research (*selfie*, *hashtag* and Facebook) does not appear within the British National Corpus. What is more, the only one appearing (*tweet*) only yields 20 tokens.

The main reason for using BNC in this research is that of reinforcing the information given by the corpus COCA in terms of types of texts. British National Corpus adds two additional text types: Non-Academic and Miscellaneous.

Indeed, it is in this very last type, Miscellaneous, where we can find more coincidences for *tweet*, 9 out of 20. Throughout this corpus, the word *tweet* does not appear in magazines, newspapers and non-academic texts.

As it has been already said, and as it is shown below in chart 14, it could be labelled as strange the fact that the word *tweet only* appears 20 times along the British National Corpus, which counts on 100 million words. A possible explanation to this fact could be that BNC is focused mainly on written texts, and the words which have been analysed on this research are more likely to happen in spoken language.

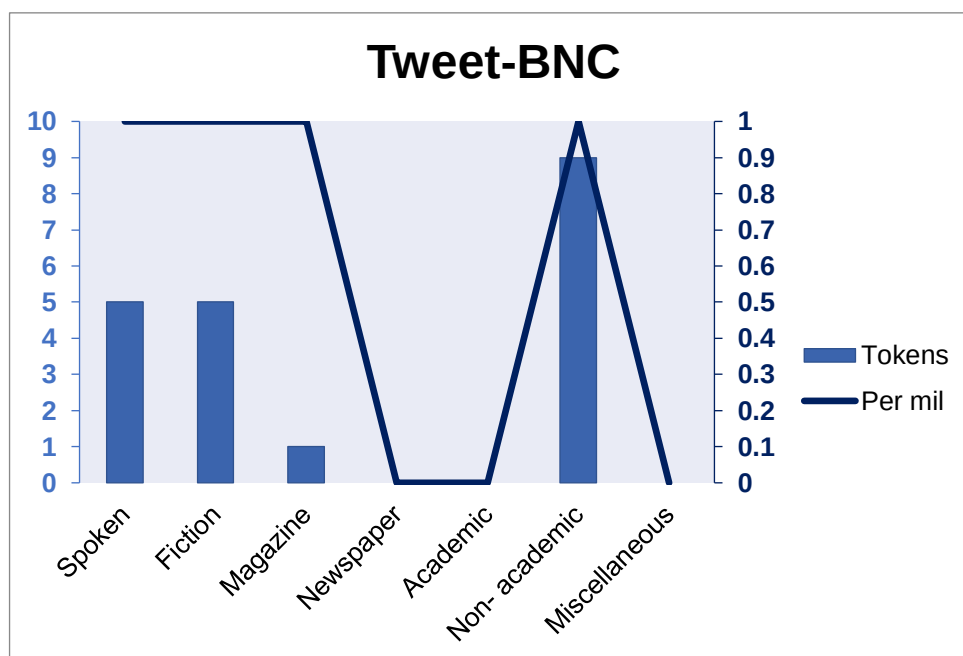


Chart 14. Total tokens and tokens per million of the word *Hashtag* in COCA, BNC and GLOWBE

8.3.3. GloWbE

With the purpose of getting deeper into the differences variables of English, the Global Web-Based English corpus has been used in this research too. The figures below, charts 15-22, show the relevance that the four words analysed within our research have.

As a most remarkable facts, it can be emphasised that *tweet* and *hashtag* are very common words in Ghana, a country which could be considered to be less developed than others which are also included in the research; *tweet* yields a total of 516 coincidences in Ghana, which means 14.06 times per million (similarly to USA and Canada), whereas *hashtag* appears 87 times, meaning 2.24 per million (levelled to USA or Ireland).

On the contrary, countries such as Tanzania or Nigeria are the ones where these analysed words appear the least. However, in a country , as Hong Kong, which gives the impression of being wealthy and technologically developed, it is not common to face the words; for instance, *tweet* only poses 4.75 coincidences per million, whereas in Great Britain, the same word implies 18.66 coincidences per million. Indeed, the word *hashtag* in the same countries is found 0.59 and 3.15 times per million respectively. Let us see the charts below to clarify all this data:

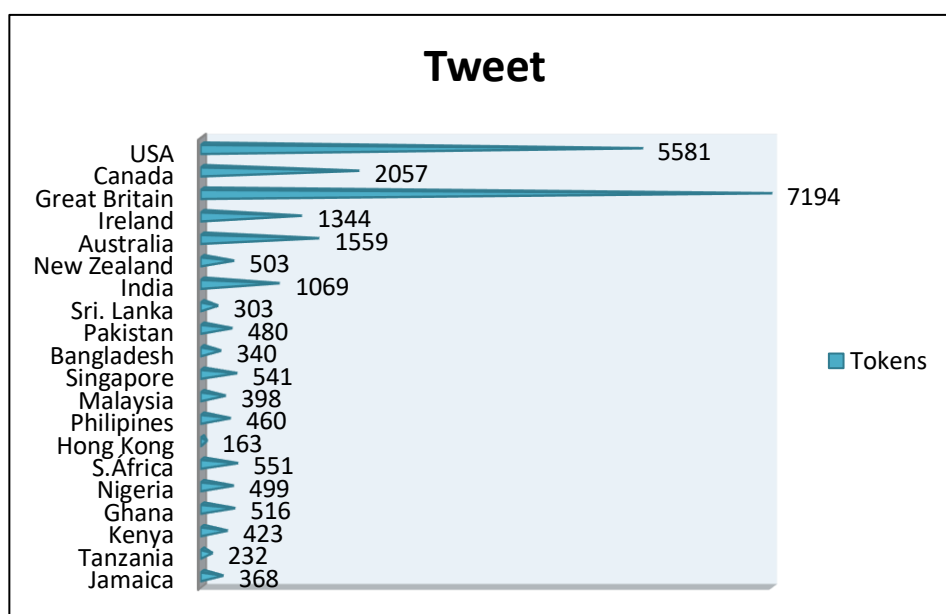


Chart 15. Total tokens of word *Tweet* in GloWbE Corpus, regarding 20 different countries

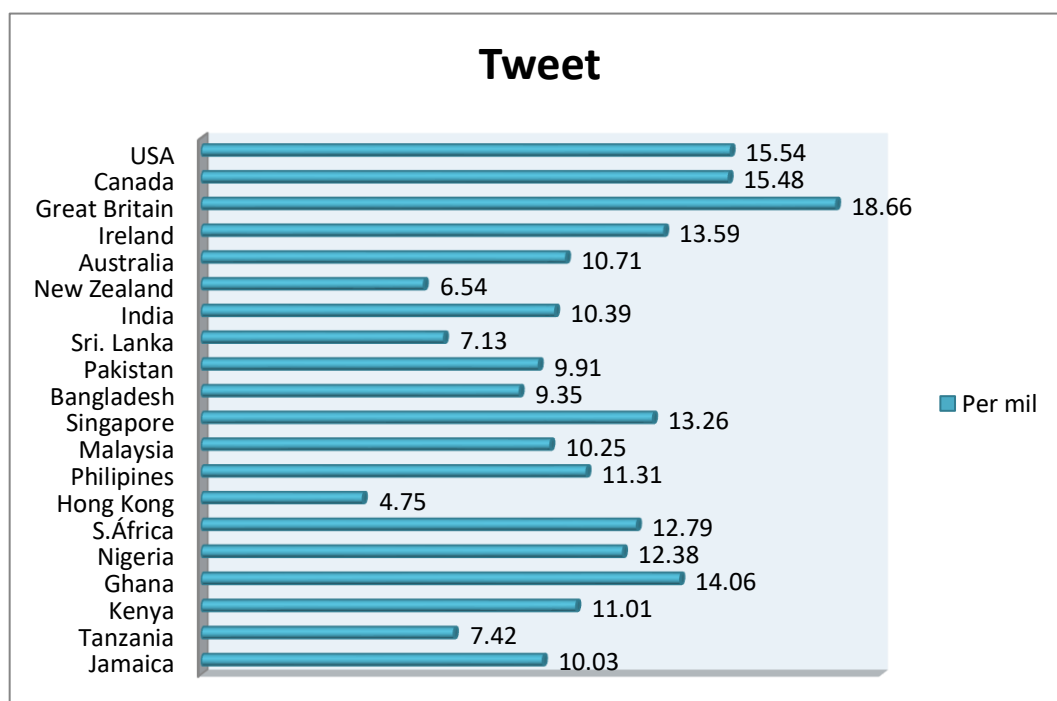


Chart 16. Tokens per million of word Tweet in GloWbE Corpus, regarding 20 different countries

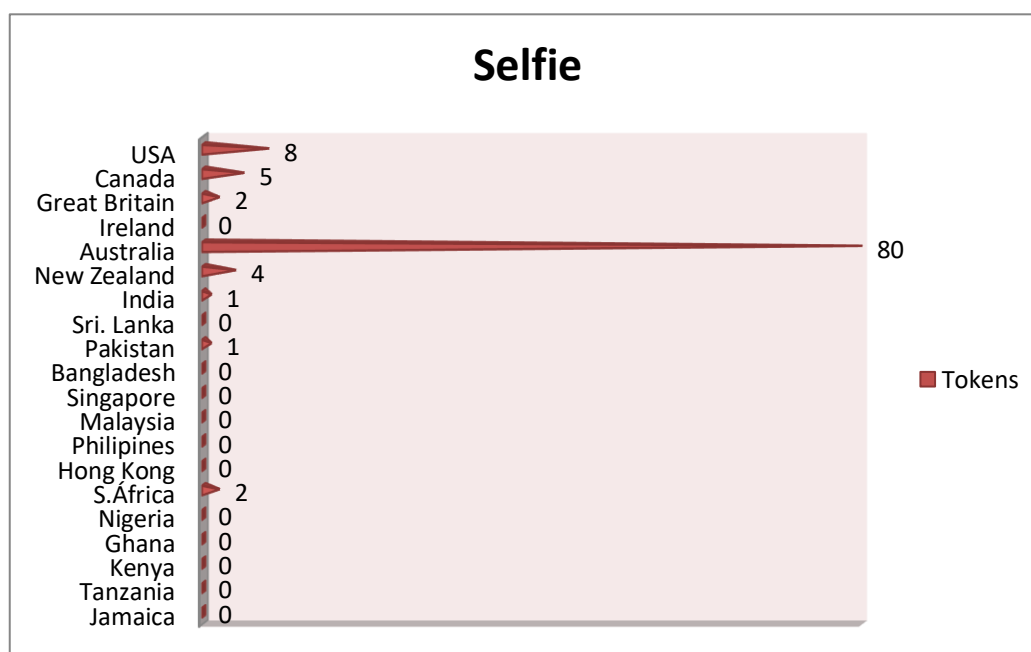


Chart 17. Total tokens of word Selfie in GloWbE Corpus, regarding 20 different countries

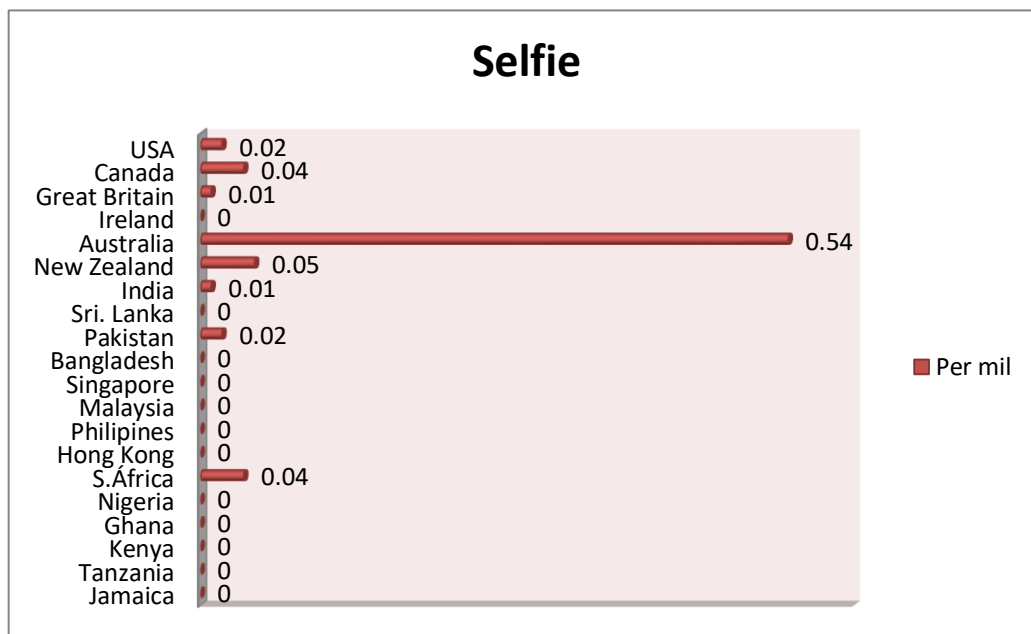


Chart 18. Tokens per million of word Selfie in GloWbE Corpus, regarding 20 different countries

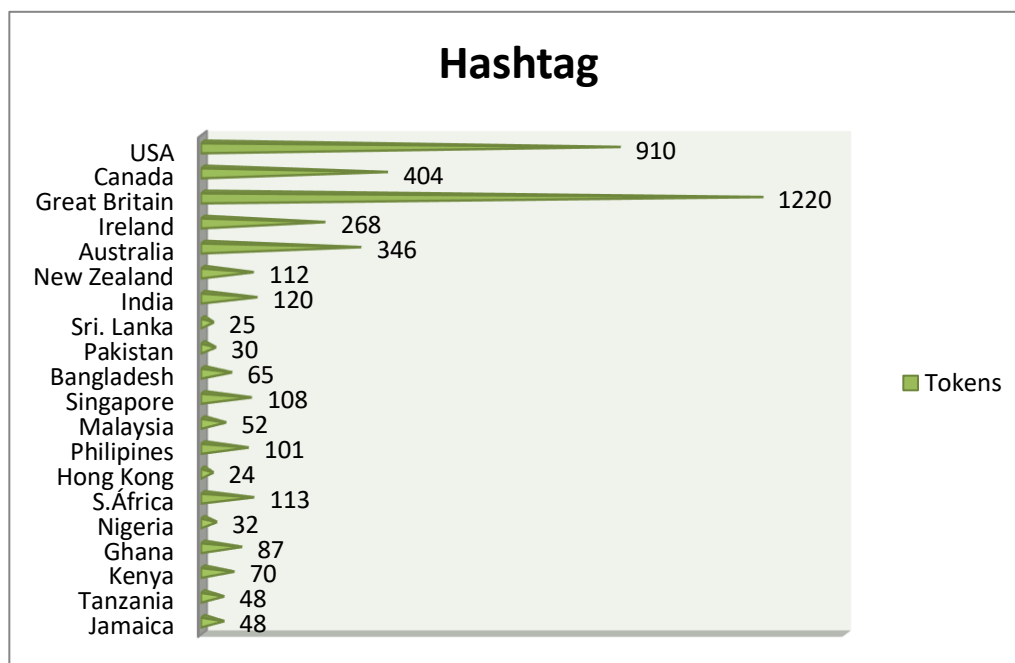


Chart 19. Total tokens of word Hashtag in GloWbE Corpus, regarding 20 different countries

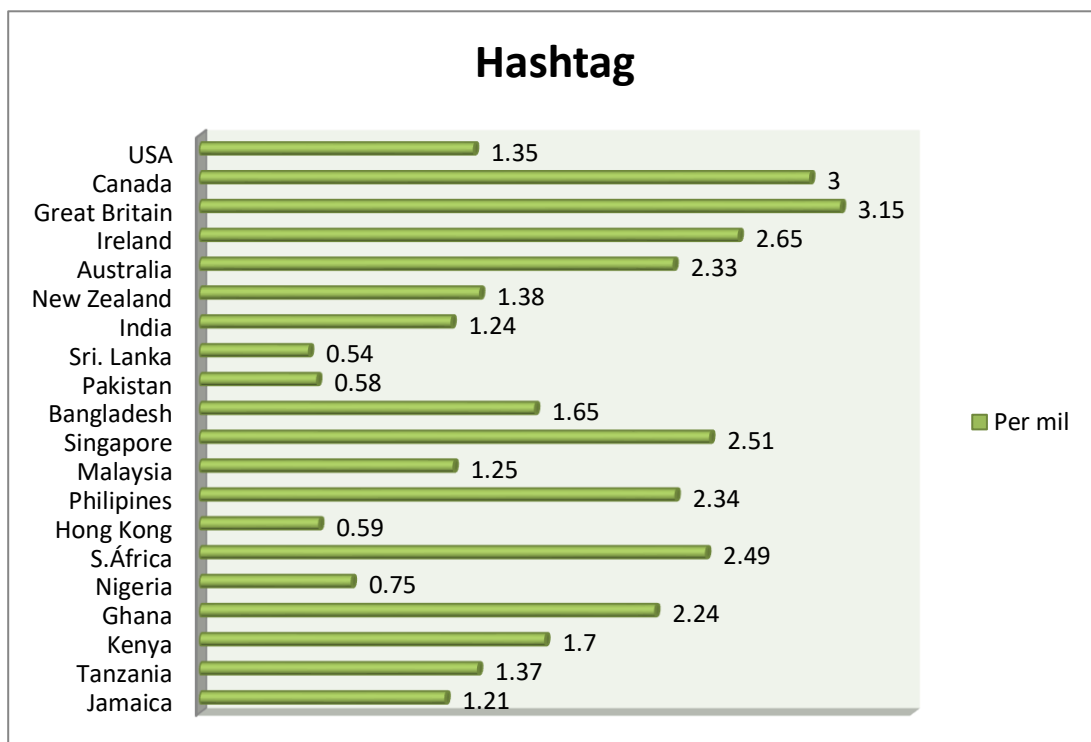


Chart 20. Tokens per million of word Hashtag in GloWbE Corpus, regarding 20 different countries

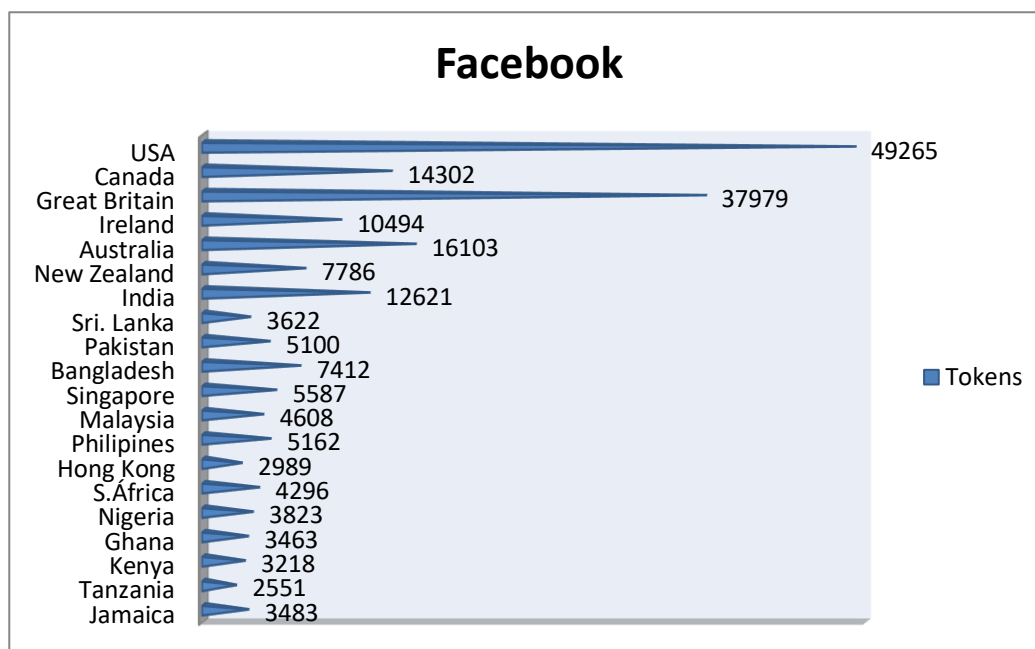


Chart 21. Total tokens of word Facebook in GloWbE Corpus, regarding 20 different countries

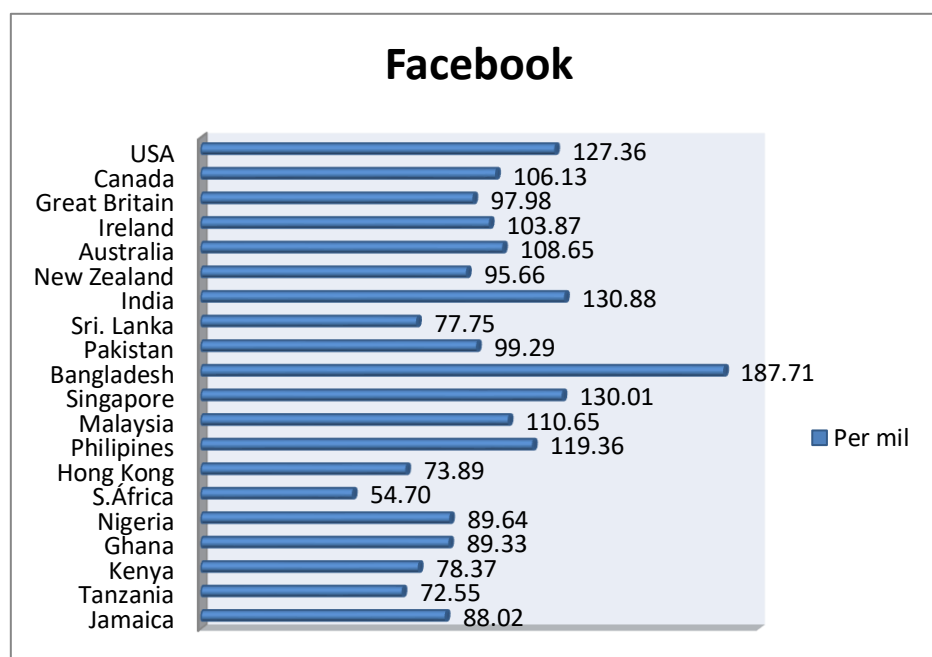


Chart 22. Tokens per million of word Facebook in GloWbE Corpus, regarding 20 different countries

9. DISCUSSION OF RESULTS.

Taking the information above into consideration, it seems clear that, as it was said in the Introduction paragraph, technology has enough power to modify languages by adding new words which speakers include progressively in their lives. As the research shows, there are words which were not used twenty years ago, and now are highly common in our lives, appearing, some of them, in different text types.

This is not an occasional fact; indeed, it is taking place all over the world, and, as previously stated, in countries which hold very different characteristics, such as Ghana or Nigeria and USA or Canada. The impact of technologies is so strong that it has its effect in all of them, whatever their social, economic or political features are. We sometimes tend to consider only Great Britain or USA when speaking about English, and we usually forget about some of these countries, which work similarly to the previous ones.

Possibly, the most surprising result which can be drawn from the research is the fact that *selfie*, *hashtag* and *Facebook* do not appear within British National Corpus. It can be expected that these words do appear in future corpora. Despite this fact, it is generally acknowledged that all of them do exist and do appear frequently.

To conclude, it could be pointed out that languages go together with any relevant progress that takes place, so, in the same way that some of the expressions which we use nowadays are completely different to those used in 1990s, some which are used currently will not be used in twenty years' time, talking about *selfie* or *hashtag*, perhaps, as old-fashioned words.

10. CONCLUDING REMARKS

This project has been devoted to develop the evolution that English, as a language, has suffered from. When dealing with evolution, we are also talking about the appearance of new words and words whose meaning has changed.

In order to do that, concepts such as word-formation processes and the elements which participate in communication have been analysed too. All these changes have caused that the teaching-learning process becomes different from the one existing some decades ago, since students have to get used to writing differently without forgetting about formality and academic style. This very last fact causes problems very frequently, since students do not tend to communicate in a formal style nowadays.

Our research has been useful to put all this information into numbers and real world. It has confirmed that some words which have appeared due to the use of new technologies started to be using in recent years; on the contrary, they were not used in 20th century and in the first years of 21st century. Furthermore, thanks to the research, we have been able to be aware that these words are more common in spoken and informal registers, whereas they are not very likely to appear in academic or formal styles.

Moreover, our research is useful to get to know where the studied words are more likely to appear. The fact that they tend to be found especially on developed countries tells us that technology is very related to the level of development that each country has suffered or is suffering from.

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