

# อิทธิพลของภาษาอังกฤษในหน่วยนามและหน่วยกริยา ภาษาสเปนที่ใช้ในเทคโนโลยีสารสนเทศ: มุมมองทางด้านวิทยาหน่วยคำ

ริคาโร่โด เรเยส \*

รอดนีย์ ซี. จุบิลาโด \*\*

## บทคัดย่อ

บทความนี้เกี่ยวข้องกับอิทธิพลของภาษาอังกฤษในหน่วยนามและหน่วยกริยาภาษาสเปนที่ใช้ในเทคโนโลยีสารสนเทศ การศึกษาครั้งนี้เก็บข้อมูลจากจดหมาย สื่อสังคม อินเทอร์เน็ต และงานวิจัยอื่นๆ ที่ศึกษาอิทธิพลของภาษาอังกฤษในการสร้างหน่วยนามและหน่วยกริยาในภาษาสเปน ผู้ให้ข้อมูลในการศึกษาครั้งนี้ มีทั้งหมด 66 คน จำแนกเป็นผู้ที่มาจากประเทศต่างๆ 64 คน และจากประเทศสเปน 2 คน การวิเคราะห์ข้อมูลในครั้งนี้วิเคราะห์ตามแนวคิดเรื่องผลิตภัณฑ์ทางวิทยาหน่วยคำ นอกจากนี้ ผู้วิจัยยังใช้ Diccionario de la Real Academia Española (DRAE) ในการกำหนดสถานะความเป็นคำศัพท์ของหน่วยนามและหน่วยกริยาที่พบในข้อมูลด้วย ผลการศึกษาพบหน่วยนามมากกว่าหน่วยกริยา และหน่วยนามทุกหน่วยที่พบในข้อมูลล้วนเป็นคำศัพท์ที่ปรากฏอยู่ใน DRAE ทั้งสิ้น สำหรับหน่วยกริยาไม่เพียง 44 % ที่เป็นคำศัพท์ที่ปรากฏอยู่ใน DRAE

\* อาจารย์ประจำภาควิชาภาษาเอเชียและยุโรป คณะภาษาและภาษาศาสตร์ มหาวิทยาลัยมาลายา ติดต่อได้ที่: ricardo@um.edu.my

\*\* ผู้ช่วยศาสตราจารย์ประจำภาควิชาภาษา วิทยาลัยศิลปศาสตร์และวิทยาศาสตร์ มหาวิทยาลัยจ亚瓦ย ติดต่อได้ที่: rodneycj@hawaii.edu

**คำสำคัญ:** สำนวนอังกฤษ; Diccionario de la Real Academia Española; ภาษาสเปน; ผลิตภัณฑ์ทางวิทยาหน่วยคำ; ภาษาคอมพิวเตอร์

## **Influence of English on Spanish Cyber Nominals and Verbals: A Morphological Perspective**

**Ricardo Reyes<sup>\*</sup>**

**Rodney C. Jubilado<sup>\*\*</sup>**

### **Abstract**

This paper deals with the influence of English on the Spanish nominals and verbals used in the cyberspace. This study made use of the data collected from correspondence, social media, the internet, and other existing research on influence of English on the Spanish nominal and verbal anglicisms. There were 66 participants in this study: 64 from Latin America and two from Spain. Analysis of the data was made using formal analysis within the concept of morphological productivity. The Diccionario de la Real Academia Española (DRAE) was also used in this study to determine the lexical status of the anglicisms in Spanish. Findings showed that nominal anglicisms were more productive than the verbal anglicisms. Of these anglicisms, 100% of the nominals are official lexical entries in DRAE, and only 44% of the verbal nominals are official lexical entries in DRAE.

---

<sup>\*</sup> Lecturer, Department of Asian and European Languages, Faculty of Languages and Linguistics, University of Malaya, e-mail: ricardo@um.edu.my

<sup>\*\*</sup> Assistant Professor, Department of Languages, College of Arts and Sciences, University of Hawaii, e-mail: rodneycj@hawaii.edu

**Keywords:** Anglicism; Diccionario de la Real Academia Española; Spanish; morphological productivity; computer language

## 1. Introduction

Given any two languages interact, language contact occurs, and influencing each other is inevitable (Thomason & Kaufman, 2001). Since the 1500s, the two economically and politically powerful languages in Europe, namely Spanish and English, have been spreading its influence. Both English and Spanish are Indo-European languages (Lewis, Simons, & Fennig, 2013). Spanish is a Western Italic language which originates from the Spanish region of Castille. On the other hand, English is a West Germanic language which originates in England of the British Isles. Currently, English is used in 53 Commonwealth countries, and Spanish in 20 countries mostly in Latin America (Brinton & Arnovick, 2011; Nadeau & Barlow, 2013). It is also noteworthy to mention the birth of creoles and pidgins with either Spanish or English that functions as lexifiers. Among these English-based creoles and pidgins are Manglish of Malaysia, Singlish of Singapore, Taglish of the Philippines (via American English), Bislama of Vanuatu, Tok Pisin of Papua New Guinea, Antiguan Creole of Antigua and Barbuda, to name a few (Campbell, 2013; Crowley & Bowern, 2010). For Spanish-based creoles and pidgins, prominent examples include Chavacano of the Philippines, Palenquero of Colombia, Papiamento of Bonaire, Curacao, and Aruba, and Haitian Creole of Haiti among others (Holm, 2000).

The preceding paragraph states the traditional view of language contact of speakers that happened from the 1500s to 1900s when the European countries of England and Spain had been the global masters. Their respective national languages, English and Spanish, have influenced continually other languages. With the advancement of computer technology, these languages further have influenced other languages and even each other in the virtual world, the cyberspace. When the first commercial computers were

introduced in the market, English was the language used in computer programming with the resulting register also in English (Dickinson, Brew, & Meurers, 2013). With English as the emerging most powerful language in the mass media, trade and commerce, and cyberspace, it is logical to infer that English has become the most influential language. With the linguistic hegemony of English (Suarez, 2002), consequentially anglicism exists in any part of the technology driven world where computer technology is indispensably used. Gorlach (2003, p. 1) defined anglicism as “a word or idiom that is recognizably English in its form (spelling, pronunciation, morphology, or at least one of the three), but is accepted as an item in the vocabulary of the receptor language.” As computer technology advances rapidly, the languages used in the cyberspace, in general, face an ever-growing pressure to come up with new lexical units with which these technological advances can be labeled and referred to in everyday life. In this article the term *computer language* refers to the terms used in order to label the devices and the applications performed with these devices in the area of Informatics. It is important to distinguish it from the term *computer programming language* that refers to the language used to create computer programs (Shieber, 1984, p. 362).

All natural languages have three different ways of coping with this demand of vocabulary: the coinage of new terms, borrowing existing terms from other languages, and the calquing of existing terms. Lexical borrowing is “the adoption of individual words or even large sets of vocabulary items from another language or dialect” (Hock, 1991, p. 380). According to Larizgoitia (2010, p. 15), “A calque, and the verb to calque, on the contrary, will be used here in the sense of ‘loan-translation’ and ‘substitution’, i.e. reproducing the meaning of an item in another language through imitation, employing the target language’s signifiers or linguistic elements.” In the case of Spanish, it copes with the vast lexical demand by borrowing existing English lexical items, as this

process is more productive than the coinage of new words (Reyes & Jubilado, 2012). Booij (2001, p. 18) stated that, "Morphological patterns that can be systematically extended are called productive." There are three prerequisites of productivity: frequency, semantic coherence, and the ability to make new forms (Bauer, 2001, p. 20).

The borrowing of terms is usually very straightforward in the case of nouns, and it appears both in oral and written discourse in the form of code-switching, either by using the foreign word as is, or, in some cases, by modifying it to adjust to the phonological requirements of the borrowing language. However, in the case of verbs, the process is more complex, given the need for tenses and conjugations that this action might involve. When borrowing verbs, the result is a lexical transformation process by which the new terms fulfill all the verbal grammatical functions of the borrowing language. Hence, verbal anglicisms are less likely to be incorporated into the official dictionaries of the borrowing languages, although commonly used in informal and therefore unofficial settings. In this paper, the working definition of anglicism is that it is a word or phrase from English language used in Spanish in the computer language.

## **2. Purpose of the Study**

This preliminary study is an attempt to present an analysis on the lexical level of the nominal and verbal anglicisms in Spanish. In particular, the morphology of these anglicisms is given focus in the formal analysis within the concept of morphological productivity. This study also aims to investigate anglicisms used in Spanish computer language. In particular, it aims to determine the status of nominal and verbal anglicisms in relation to the *Real*

*Academia Española* (RAE). This study anticipates that the tendency is for the official dictionary of the Spanish language to accept more anglicized nouns than verbs. As per Bolaños and Lujan (2010), although there is extensive research done on anglicisms, and even specialized dictionaries of anglicisms have been created: *Diccionario comentado de terminología informática* (De Cea, 1993), *Glosario básico inglés-español para usuarios de internet* (Calvo, 2001) and *Vocabulario de ordenadores e internet* (Millán, 2001), this dynamic area requires further study. The current study does not take specialized dictionaries into consideration, as they differ in content among them. Instead, it analyzes the anglicisms in relation to the official dictionary from the RAE.

### **3. Research Methodology**

The data of this study was primarily taken from personal correspondence and the internet. The social media network, Facebook, was also a major source as the studied lexical items were vastly used in this communication medium. There were 66 participants in this study: 64 from Latin America and two from Spain. All of these participants were native speakers of Spanish. Additional data was obtained from the existing research conducted by Montseny (1999) from Cuba and Solis (2005) from Peru. A total of 108 lexical items were collected, and morphological analysis was applied to these lexical items.

### **4. Comparative Spanish and English Morphology**

From the morphological perspective, English and Spanish are synthetic, which means that the affixes of these languages signify morphological, syntactic, and semantic properties (Aronoff & Fudeman, 2011). This section

presents the brief sketch of comparative Spanish and English morphology focusing on nouns and verbs to give light to the following analysis of anglicisms on the lexical level.

#### **4.1 Comparative Nominal Morphology in Spanish and English**

Lexical items are given their categorical assignment by virtue of its morphological, syntactic, and semantic properties. This subsection presents a brief sketch of Spanish and English nominal morphology from the formal analytical perspective of derivational and inflectional morphology. The lexical category of nouns has large membership in English and Spanish.

##### **4.1.1 Spanish Nominal Morphology**

Spanish exhibits grammatical gender (Lang, 1990). Generally, Spanish derives feminine nouns by using the suffixes *-a*, *-ion*, *-ad*, to name a few. Among the examples are *doctora* 'female doctor', *nacion* 'nation', and *capacidad* 'capacity'. In most cases, Spanish words ending in *-o* is masculine as the word *maestro* 'male teacher' with which the feminine equivalent is *maestra* 'female teacher'. In sentences, Spanish nouns are preceded by the determiners *el* and *la*, which are masculine and feminine, respectively. As such, in the nominal phrases *el maestro* 'the male teacher' and *la maestra* 'the female teacher', the gender of the noun matches the gender of the determiner.

Spanish also exhibits grammatical number. Generally, plural nouns are formed by affixing the suffix *-s* or *-es* to the singular nouns ending in vowels and consonants, respectively. The nouns mentioned in the immediately preceding paragraph are all singular and their corresponding plural forms are: *doctoras* 'female doctors', *naciones* 'nations', *capacidades* 'capacities', *maestros* 'male teachers', and *maestras* 'female teachers', respectively. In sentences,

plural Spanish nouns are preceded by the determiners *los* and *las*, which are masculine and feminine, respectively. As such, the sample plural nouns have the phrasal forms *las doctoras* 'the female doctors', *las naciones* 'the nations', *las capacidades* 'the capacities', *los maestros* 'the male teachers', and *las maestros* 'the female teachers', respectively.

#### 4.1.2 English Nominal Morphology

Grammatical gender morphology in English is impoverished compared to Spanish. Feminine gender is exhibited inherently in personal English names such as Elizabeth, Mary, and Therese, to exemplify. Similarly, masculine names include the personal names Ambrose, Peter, and John, to exemplify. In common nouns, feminine gender is exhibited in the use of the suffixes -ess like in these examples: *actress*, *seductress*, *sorceress*, *abbess*, *deaconess*, *priestess*, *duchess*, *princess*, to name a few. There is a masculine word *actor* for the feminine *actress* and *sorcerer* for *sorceress*, but nothing is the like for the remaining feminine samples in immediately preceding sentence. The latter belongs to the natural gender as seen in these examples: *abbot*, *priest*, *deacon*, *duke*, and *prince* because in the history of English such names or titles are basically masculine. Similarly, there is a privative natural gender in the common nouns such as the following samples: *cow-bull*, *hen-rooster*, *king-queen*, *boy-girl*, to name a few. This case of impoverished gender nominal morphology is due to the fact that inflectional gender is almost lost in English (Huddleston & Pullum, 2002).

In terms of grammatical number, English nouns inflect for singularity and plurality. In general, the affixation of the suffix -s or -es to the singular nouns inflects for plural nouns. Among the basic examples are as follows: *actors*, *actresses*, *sorcerers*, *sorceresses*, *abbots*, *abbesses*, *deacons*, *deaconesses*, *priests*, *priestesses*, *princes*, *princesses*, to exemplify. There are

other affixes used to derive and inflect singular and plural nouns, but such cannot be discussed at length here. Unlike Spanish, English has the determiner *the* which precedes the nouns irrespective of its gender and number. Suffice it to say that there is regularity and generality in the formation of plural nouns in English, and that English exhibits the grammatical number in its nominal morphology.

#### **4.2 Comparative Verbal Morphology in Spanish and English**

The lexical category of verbs has large membership in Spanish and English but not as large as those of nouns due to its morphological, syntactic, and semantic properties (Whitley, 2002). This subsection presents a brief sketch of Spanish and English verbal morphology.

##### **4.2.1 Spanish Verbal Morphology**

The richness of Spanish verb morphology is best described by the fullness of its paradigm wherein morphological categories of tense, person, number, voice, mode, and aspect are all inflected (Hualde, Olarrea, Escobar, & Travis, 2010). In the pedagogical books, Spanish verbs are normally presented in conjugation according to four moods: infinitive, indicative, subjunctive, and imperative (Kendris & Kendris, 2012; Bey, 2010; Bergstein, 2006). In the infinitive form, there is regularity in the conjugation of verbs with the affixation of -ar, -er, and -ir in relation to the morphological categories of person and number presented below in Table 1.

Table 1

*Paradigm of Regular Spanish Verbalizing Affixes*

Person	Verb Suffixes		
	-ar	-er	-ir
Yo (I)	-o	-o	-o
Tú (You informal)	-as	-es	-es
Él (He)	-a	-e	-e
Ella (She)			
Usted (You formal)			
Nosotros (We masculine)	-amos	-emos	-imos
Nosotras (We feminine)			
Vosotros (You (all) masculine informal in Spain)	-áis	-éis	-ís
Vosotras (You (all) feminine informal in Spain)			
Ellos (They masculine)	-an	-en	-en
Ellas (They feminine)			
Ustedes (You plural formal in Spain / You plural in Latin America)			

Table 1 shows the suffixes that inflect number, person, indicative mood, and present tense (Zagona, 2002). Using the verb *estudiar* 'to study' as an example, the resulting verb forms are as follows: *estudio* 'I study', *estudias* 'you (informal) study', *estudia* 'he/she/You (formal) study', *estudiamos* 'we study', *estudiáis* 'you all study', and *estudian* 'they study'. Considering the multiplying effect of these morphosyntactic categories, one Spanish root verb

can be inflected in all these categories resulting to almost 50 verb forms from the same root.

#### 4.2.2 English Verbal Morphology

Just like Spanish, English verbs inflect in person, number, tense, mood, but not in gender (Meyer, 2009). In general, English verb morphology is not as rich as Spanish verb morphology. For example, the infinitive verb *to study* will have the regular forms *study*, *studies*, *studying*, and *studied* to signify inflection in number and tense. English verbs need auxiliary to project mood and other morphological and syntactic categories in the sentential construction (Radford, 2009).

### 5. Influence of English in Spanish Computer Language:

#### The Case of Anglicisms

Globalization has a heavy impact on Linguistics, and it is the predominance of English as the international language in various disciplines such as business, science and technology, that pressures other languages to borrow specialized terms in order to fill the lexical voids in these domains (McGregor, 2009). The introduction of computers to the market and the inception of the internet facilitate the birth of cyberspace (Bell, 2007; Manovich, 2003). The World Wide Web hastens the utility and the boundless communication among people from different parts of the world (Ryan, 2010; Berners-Lee, 2000). Social media such as blogs, Facebook, Twitter, to name a few, traverse and penetrate all boundaries both natural and human constructs. The cyberspace is the new world constructed by computer technology, and, just like in the natural world, languages, which function for communication, interact with each other and much faster.

The majority of new computer technology is developed in English, and therefore this language dominates this field according to De la Cruz, Tejedor, Diez, and Cerda (2007). The dominance of the English language in this field has created a historical incompatibility with other languages. In the case of Spanish, the dominant influence of English is present for instance in the complexity level needed to type accent marks or the correct representation of the Spanish consonant *ñ* points out Posterguillo (2002, pp.122-124). This is also a clear consequence of the need for a lingua franca in a globalized world, as stated in the work of Bolaños & Lujan (2010). And more specifically in the case of the Spanish language, 'Spanish language is enormously influenced by technical English, and more recently by English Internet technology' (Posterguillo, 2002).

Other authors also agreed that, "Contact with the English language, especially from the 20th century onwards, has had as a consequence an increase in the number of words that are borrowed from English to Spanish" (De la Cruz et al., 2007). Posterguillo (2002) argued that English has become the lingua franca in the field of Informatics, mainly for two reasons: first is the fact that nowadays millions of people are interconnected through the Internet, and second, because all these people have access to vast amounts of information, never made available to anyone before. Linguistic globalization has been defined as the inter-connectivity of geographical, political, cultural and linguistic domains, and that: '...modern electronic technology has enhanced dramatically the communications that underpin these relationships' (Mar-Molinero & Stewart, 2006). New terms and acronyms to label computer novelties and applications, both in software and hardware, are first coined in English, and later other languages borrow these terms or calques them using literal translations, taking the risk of incurring semantic ambiguity. Scientific and technical advances are brought to the market so fast nowadays that it leaves

no time to properly translate their original name or to coin a new term (Montseny, 1999).

### **5.1 Nominal Anglicisms in Spanish**

Going over the webpages of the Spanish edition of Apple, Microsoft, and Google, nominal anglicisms are very visible, and judging its morphology some of these words are either lexically borrowed or calqued. Table 2 below presents samples of nominal anglicisms in Spanish.

Table 2

*Sample of Nominal Anglicisms in Spanish*

Number	Anglicism	Morphological	English
		Process	
1	aplicación	calque	application
2	browser	lexical borrowing	browser
3	byte	lexical borrowing	byte
4	chip	lexical borrowing	chip
5	computadora	calque	computer
6	driver	lexical borrowing	driver
7	email	lexical borrowing	email
8	fax	lexical borrowing	fax
9	firmware	lexical borrowing	firmware
10	hard drive	lexical borrowing	hard drive
11	hardware	lexical borrowing	hardware
12	internet	lexical borrowing	internet
13	malware	lexical borrowing	malware
14	modem	lexical borrowing	modem
15	monitor	lexical borrowing	monitor
16	mouse	lexical borrowing	mouse
17	multimedia	lexical borrowing	multimedia
18	multifuncion	calque	multifunction
19	navegacion	calque	navigation
20	online	lexical borrowing	online
21	plataforma	calque	platform
22	software	lexical borrowing	software
23	USB	lexical borrowing	USB
24	virus	lexical borrowing	virus
25	website	lexical borrowing	website

Looking at the entries in Table 2, the morphology of nominal anglicisms involves mostly lexical borrowing and a few calques. Schematically, the morphological process involving nominal anglicism is presented below in Figure 1:

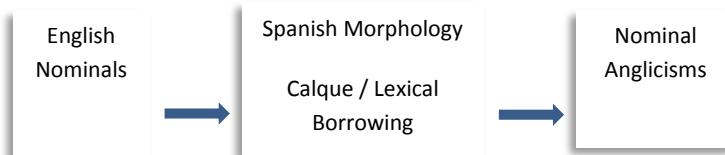


Figure 1. Morphological Process of Nominal Anglicism in Spanish

As shown in the samples of nominal anglicisms, 20 were lexically borrowed, and only five were calqued, namely, *aplicacion*, *computadora*, *multifucion*, *navegacion*, and *plataforma*. The official dictionary of the Real Academia Española known as *Diccionario de la Real Academia Española* (DRAE) was used in this study to determine the status of the anglicisms in Table 2. Out of the 25 samples, 15 anglicisms were officially entered in the DRAE leaving the other 10 unrecognized as not part of the official Spanish lexicon. The 10 unrecognized nominal anglicisms were *browser*, *driver*, *email*, *firmware*, *harddrive*, *malware*, *mouse*, *multifucion*, *online*, and *website*. DRAE has *elnavegador* for *browser*, *elcorreoelectrónico* for *email*, *eldiscoduro* for *harddrive*, *elratón* for *mouse*, and *elsitioweb* for *website*, but no alternative official entries for *firmware*, *malware*, *multifucion*, and *online*. By default, all anglicisms are masculine as shown in the lexical entries that are preceded by the masculine Spanish determiner *el*. An exception is that of *internet* where it is designated as feminine and forms the nominal phrase *la internet* because the word *net* in Spanish is *red* which is feminine and forms the feminine nominal phrase *la red*.

Following the principle of language economy, languages in general prefer to borrow lexical units that already exist in any language because these lexical items tend to be shorter than the calqued version of these terms or the coinages constructed and prescribed by politically powerful language academies (Bauer, 2001). As such, the user preferably uses the anglicisms like *driver*, *email*, *malware*, *software* and *hardware* than the longer RAE-prescribed Spanish coinages *el controlador de dispositivo*, *el correo electrónico*, *el programa maligno*, *el soporte blando* and *el soporte duro*, respectively.

## 5.2 Verbal Anglicisms in Spanish Computer Language

Compared to nominals, verbal anglicisms are less lexically productive. Nouns are generally productive due to its referential function in the physical and natural world compared to verbs. Morphologically, there are more nominalizing affixes than verbalizing affixes in English and Spanish. Syntactically speaking, given a single transitive sentence, nouns always out number verbs. In the following Table 3, samples of verbal anglicisms and their derivation schema are presented below.

Table 3

*Samples of Verbal Anglicisms in Spanish*

Number	Anglicism	Verb Derivation Schema	English Gloss
1	atachar	[[attachBASE] + [-arAFFIX]]VERB	to attach
2	bloguear	[[blogueBASE] + [-arAFFIX]]VERB	to blog
3	chatear	[[chateBASE] + [-arAFFIX]]VERB	to chat
4	chequear	[[chequeBASE] + [-arAFFIX]]VERB	to check
5	cliquear	[[cliqueBASE] + [-arAFFIX]]VERB	to click
6	computerizar	[[computerizBASE] + [-arAFFIX]]VERB	to computerize
7	customizar	[[customizBASE] + [-arAFFIX]]VERB	to customize
8	encodar	[[encodBASE] + [-arAFFIX]]VERB	to encode
9	escanear	[[escaneBASE] + [-arAFFIX]]VERB	to scan
10	faxear	[[faxeBASE] + [-arAFFIX]]VERB	to fax
11	guglear	[[gugleBASE] + [-arAFFIX]]VERB	to Google
12	inputear	[[inputBASE] + [-arAFFIX]]VERB	to input
13	jaquear	[[jaqueBASE] + [-arAFFIX]]VERB	to hack
14	podcastear	[[podcasteBASE] + [-arAFFIX]]VERB	to podcast
15	programar	[[programBASE] + [-arAFFIX]]VERB	to program
16	setear	[[seteBASE] + [-arAFFIX]]VERB	to set
17	surfear	[[surfeBASE] + [-arAFFIX]]VERB	to surf
18	testear	[[testeBASE] + [-arAFFIX]]VERB	to test
19	tipear	[[tipeBASE] + [-arAFFIX]]VERB	to type
20	tuitear	[[tuiteBASE] + [-arAFFIX]]VERB	to tweet

Morphologically speaking, the anglicized lexical items in Table 3 have the suffix *-ar*, which is the most productive of all Spanish verbalizing affix (Wheatley, 2005). The general schematic representation of the derivation of verbal anglicisms is shown in Figure 1 below:

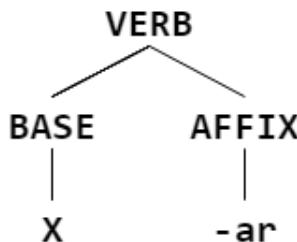


Figure 2. Derivation of Anglicized Verb

Figure 2 shows that the English-based morphological base [X] is suffixed with [-ar] to form the anglicized verb. This process applies to all the verbs in Table 3 above. Following the verb morphology of Spanish, the verbal anglicisms are predictably suffixed with *-ar* due to its productivity.

## 6. Lexical Status of the Nominal and Verbal Anglicisms in DRAE

The data in this study had been checked with the online DRAE to determine its lexical status on April 19, 2013. Overall, the DRAE tends to recognize more nominal anglicisms than verbal anglicisms, which confirms what was anticipated by the researchers. One hundred percent (100%) of the nominal anglicisms were found in the DRAE, in contrast with only 44% of the verbal anglicisms studied. The gathered data supported the claim that anglicisms in Spanish have an ever growing popularity to designate concepts that already possess a term in this language, or to fill a lexical void in it (Bolaños & Lujan, 2010). Dictionaries like DRAE usually based on the basis of occurrence of

certain terms in real life, determine whether to officially include them or not in their publications. There were also 16 nominal and verbal pairs found in the anglicisms, namely, *blog-bloguear*, *chat-chatear*, *chequeo-chequear*, *clic-cliquear*, *escaner-escanear*, *fax-faxear*, *input-inputear*, *jaquero-jaquear*, *set-setear*, *test-testear*, *switch-switchear*, *ploter-plotear*, *bug-debuguear*, *shut down-shutdownear*, *back up-bacapear*, and *tuit-tuitear*. When measuring the occurrence of these lexical items online, these researchers encountered the fact that a few of the anglicized terms in the data are raw anglicisms that are either lexically borrowed or calqued. This caused the frequency count to be disproportionate, as the number of hits found online for these terms could not distinguish whether the term was being used as a Spanish anglicism or as a different application. These terms, therefore, were not considered for this part of the analysis. However, there were only four pairs of nominal and verbal anglicisms in which the difference in occurrences was evident, as presented in Table 4 below.

Table 4

*Number of Occurrences between Nominal and Verbal Anglicisms*

Lexical category	Sample Anglicisms	Number of occurrences
		(Google search hits)
Nominal	clic	358,000,000
Verbal	cliquear	348,000
Nominal	chequeo	6,520,000
Verbal	chequear	2,460,000
Nominal	escáner	12,100,000
Verbal	escanear	5,510,000
Nominal	plóter	26,800,800
Verbal	plotear	103,000

The findings showed that nominal anglicisms have a higher number of occurrences than verbal anglicisms when used online. This factor is essential in the creation and revision of dictionaries. These occurrences, or 'tokens', are the determining factor for the acceptability of alexical entry (Svensén, 2009). This finding reinforced the point that nominal anglicisms have a higher use than verbal anglicisms online.

Finally, this study looks at the element of language economy, by which languages tend to choose the shortest form available for a given term. This concept is closely related to the one of productivity. In order for a word to be productive, it should have high frequency of usage, it should have semantic coherence, and it should have the ability to make new forms, as per Bauer (2001). Mainly because the data studied here is composed of terms used by millions of computer users worldwide, they all have a high frequency of usage. Anglicisms have high semantic coherence; whether they are raw or modified, they resemble the semantic values of the original term. As for the third requirement, it can be observed in this study that anglicisms have the ability to create new terms. For instance, nominal anglicisms in Spanish can be easily turned into verbal anglicisms by following simple grammatical processes. In Spanish, the suffix -ar is the most common one for verbs in infinitive mode, therefore users of the language choose this prefix and form new anglicized verbs, as stated by Solis (2005) and Wheatley (2005). Furthermore, it is always more productive to use an existing term than to coin a new one. Through language economy, the preferred form is always the shortest and most productive one available. However, because the speed at which new words are demanded by the technology, these lexical items could eventually become obsolete and its use may decrease or come to an end. It is in these cases when dictionaries may opt to remove these terms from their official revised publications. Lexicon can also acquire different meanings and connotations over time based on the social changes brought by

globalization: "The rapid turnover in vocabulary and the continual changes in the meaning of words often directly reflect social changes" (Aitchison, 2001). This phenomenon of semantic shift can also be another reason for the deletion or revision of a term in any given dictionary.

## 6. Conclusion

The present study has shown that morphological productivity plays an important role in lexical borrowing and calquing of the Spanish anglicisms used in the computer language. Furthermore, the enormous pressure that the dynamic field of Informatics applies to language in the form of demand for new terms leaves little time for their coinage. This study found that anglicisms in Spanish computer language are borrowed from English. From the analyzed data, DRAE has accepted 100% of the Spanish anglicized nominals and only 44% of the verbal anglicisms. For this reason, it is possible to assert that anglicisms in the Informatics field, for the most part, enter dictionaries in the form of nouns. It is only later, when users of the language encounter the need to perform specific actions related to these nouns, that verbs naturally occur. This happens when users of the language follow unconscious linguistics processes, such as the suffixation of nouns with the -ar ending, as this is the Spanish verbal ending with the highest frequency. However, only a few of these verbs gain acceptance in the official RAE dictionary, mostly due to their low number of occurrences in real life.

## References

Aitchison, J. (2001). *Language change: progress or decay*. Cambridge: Cambridge University Press

Aronoff, M, & Fudeman, K. (2011). *What is morphology*. Oxford: Wiley-Blackwell.

Bauer, L. (2001). *Morphological productivity*. Cambridge: Cambridge University Press.

Bell, D. (2007). *Cyberculture theorists*. New York: Routledge.

Bergstein, B. (2006). *Easy spanish: Step by step*. New York: McGraw Hill.

Berners-Lee, T. (2000). *Weaving the web: The original design and ultimate destiny of the world wide web*. New York: Harper Collins Publishers, Inc.

Bey, V. (2010). *Spanish verb drills (4th Ed.)*. New York: McGraw Hill.

Booij, G. (2012). *The grammar of words: An introduction to linguistic morphology*. Oxford University Press.

Bolaños, A., & Lujan, C. (2010). *Análisis de los anglicismos informáticos crudos del léxico disponible de los estudiantes universitarios de traducción*. *Lexis*, 34: 241-274.

Brinton, L., & Arnovick, L. (2011). *The English language: A linguistic history*. New York: Oxford University Press.

Calvo, R. F. (2001). *Glosario básico inglés-español para usuarios de Internet*. Barcelona: Asociación de Técnicos de la Informática.

Campbell, L. (2013). *Historical linguistics: An introduction*. Edinburgh: Edinburgh University Press.

Crowley, T., & Bowern, C. (2010). *An introduction to historical linguistics (4<sup>th</sup> Ed.)*. New York: Oxford University Press.

De Cea, G. A. (1996). *Diccionario comentado de terminología informática*. Madrid: Editorial Paraninfo.

De la Cruz, I., Tejedor, C., Diez, M., & Cerdá, E. (2007). English loanwords in Spanish computer language. *English for Specific Purposes*, 26, 52-78. doi: 10.1016/j.esp.2005.06.002

Dickinson, M., Brew, C., & Meurers, D. (2013). *Language and computers*. Oxford: Wiley-Blackwell.

Gorlach, M. (2003). *Terminology and lexicography research and practice: English words abroad*. Amsterdam: John Benjamins Publishing Company.

Hock, H. H. (1991). *Principles of historical linguistics*. Berlin: Walter de Gruyter

Holm, J. (2000). *An introduction to pidgins and creoles*. Cambridge: Cambridge University Press.

Hualde, J. I., Olarrea, A., Escobar, A. M., & Travis, C. (2010). *Introducción a la Lingüística Hispánica*. Cambridge: Cambridge University Press.

Huddleston, R., & Pullum, G. K. (2002). *The Cambridge grammar of English language* (pp. 1-23). Cambridge: Cambridge University Press.

Hualde, J. I., Olarrea, A., Escobar, A. M., & Travis, C. (2010). *Introducción a la Lingüística Hispánica*. Cambridge: Cambridge University Press.

Kendris, C., & Kendris, T. (2012). Spanish verbs (Barron's foreign language guides). *Barron's Educational Series* (3 rd ed.). New York: Barron's Educational Series.

Lang, M. F. (1990). *Spanish word formation*. London: Routledge.

Larizgoitia, X. A. (2010). A typology of calques. The calquing mechanism in contemporary Basque. *Estudios de lingüística: ELUA*, 24, 13-35.

Lewis, M. P., Simons, G. F., & Fennig, C. D. (Eds.). (2013). *Ethnologue: Languages of the world* (17th ed.). Dallas, Texas: SIL International.

Retrieved from <http://www.ethnologue.com>

Manovich, L. (2003). New media from Borges to HTML. *The new media reader*, 1, 13-25.

Mar-Molinero, C., & Stewart, M. (Eds.). (2006). *Globalization and language in the Spanish-speaking world: Macro and micro perspectives*. Hampshire: Palgrave Macmillan.

McGregor, W. B. (2009). *Linguistics: An introduction*. London: Continuum International Publishing Group.

Meyer, C. (2009). *Introducing English linguistics*. Cambridge: Cambridge University Press.

Millán, J. A. (2001). *Vocabulario de ordenadores e Internet*. Retrieved from [http://jamillan.com/v\\_index.htm](http://jamillan.com/v_index.htm)

Montseny, M. (1999). *Algunas consideraciones acerca del tecnolecto en computación*. Paper presented at the VI International Symposium of Social Communication, Santiago de Cuba (pp. 68-74). Santiago: Universidad de La Habana. Retrieved from <http://santiago.cu/hosting/linguistica/simposios.php?s=VI>

Nadeau, J.-B., & Barlow, J. (2013). *The story of Spanish*. New York: St. Martin's Press.

Posterguillo, S. (2002). La influencia del inglés de Internet en la lengua española. *Revista de investigación lingüística*, 5(2), 117-139. Retrieved from <http://revistas.um.es/index.php/ril/article/viewFile/5391/5281>

Radford, A. (2009). *Analysing English sentences: A minimalist approach*. Cambridge: Cambridge University Press.

Real Academia Española (RAE). Retrieved April 19, 2013 from <http://www.rae.es/rae.html>.

Reyes, R. M., & Jubilado, R. C. (2012). Morphological study of verb anglicisms in Spanish computer language. *Polyglossia*, 23, 43-47.

Ryan, J. (2010). *A history of the internet and the digital future*. London: Reaktion Books LTD.

Shieber, S. M. (1984). The design of a computer language for linguistic information. In *Proceedings of the 10th international conference on Computational linguistics* (pp. 362-366). Association for Computational Linguistics.

Solis, N. V. (2005). Análisis lingüístico de los anglicismos en el tecnolecto de la informática (Unpublished BA thesis). Lima: Universidad Nacional Mayor de San Marcos. Retrieved from [http://sisbib.unmsm.edu.pe/bibvirtual/monografias/Human/solis\\_an/solis\\_an.htm](http://sisbib.unmsm.edu.pe/bibvirtual/monografias/Human/solis_an/solis_an.htm)

Suarez, D. (2002). The paradox of linguistic hegemony and the maintenance of Spanish as a heritage language in the United States. *Journal of Multilingual and Multicultural Development*, 23(6), 512-530.

Svensén, B. (2009). *A handbook of lexicography: The theory and practice of dictionary-making*. Cambridge: Cambridge University Press.

Thomason, S. G., & Kaufman, T. (2001). *Language contact*. Edinburgh: Edinburgh University Press.

Wheatley, K. (2005). *Sintaxis y morfología de la lengua española*. Boston: Prentice Hall.

Whitley, M. S. (2002). *Spanish/English contrasts*. Washington, DC: Georgetown University Press.

Zagona, K. (2002). *The syntax of Spanish*. Cambridge: Cambridge University Press.