A Study of English Loanwords for Science and Technology in the Myanmar Language

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Abstract

This paper is concerned with the study of English loanwords in the field of science and technology in the Myanmar language. The main objective of the study is to determine which type and manner of borrowing occurs most in the Myanmar language. The scope of this study is limited to common English loanwords found in the four issues of a well-known IT journal, namely Internet Journal, published in June 2012 and they were analyzed using Haugen's classification framework on lexical borrowing. The findings have revealed that of all three types of borrowing: loanwords, loanshifts and loanblends, loanwords occupy the largest part of lexical borrowing in the field of science and technology in the Myanmar language.

Key words: borrowing, loanwords, loanshifts, loanblends

Introduction

Linguistic borrowing is a very common and intensively studied phenomenon and a particularly prominent group of borrowing is loanwords. Lexical borrowings or loanwords are one of the ways in which the lexicon of a particular language can be enlarged. All languages borrow words from other languages. All cultures that have contact are likely to borrow vocabulary from each other (Hatch & Brown, 1995). During the past few decades, there have been a great number of advances in science and technology. A new technology always has a major impact upon language, whether written or spoken (Crystal, 2002). As a consequence, a great number of words have been loaned. This paper attempts to study borrowed words, which are found in the four issues of 'Internet Journal', in the field of science and technology. This paper begins with the definitions of borrowing as well as the types and manners of borrowing. Then it deals with the borrowed words from English which are categorized in accordance with the ways they are loaned. The following part of this paper presents the findings of the study followed by the discussion and summary.

Borrowing

Borrowing is a common process across languages. Words undergo the process of borrowing when words that didn't originally exist are added to name new things. Borrowing is the process or result of adopting a linguistic form from another language or dialect. (Crystal, 1994) The definition given by Haugen (1950) is that borrowing is the attempted reproduction in one language of pattern previously found in another. In his often-quoted model of lexical borrowing, Haugen defines two key terms: importation and substitution. If a loan is similar enough to the model (the original word or pattern), and its native speaker recognizes it as his own, the model may be said to have been imported into the borrowing language, provided it is an innovation in that language. On the other hand, if the model is reproduced inadequately, the model is said to have been substituted with a similar pattern in the borrowing language. (Haugen, 1950)

Types of borrowing

On the basis of the distinction of importation and substitution, Haugen (1950) distinguished distinct types of borrowing. The three main types of borrowing are loanwords, loanblends and loanshifts.

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Loanwords: According to Haugen, the term 'loanword' is limited to terms in which the borrowing speakers have imported not only the meaning but also the phonemic shape of the borrowed words, though with more or less complete substitution of native phonemes. In this case, the substitution of phonemes can be partial or complete and sometimes there can be no substitution.

Loanblends: As the word suggests, loanblends are terms in which all substitutions involve a certain degree of analysis by the speaker of the model that he is imitating. They show morphemic substitution as well as importation. This type shows both partial substitution and partial importation.

Loanshifts: Loanshifts show morphemic substitution without importation. Loanshifts include loan translation and semantic loans. Loan translation is a special type of borrowing in which the loan is analyzed and morphemically substituted.

Categories of English Lexical borrowing for Science and Technology in the Myanmar Language

Loanwords

Loanwords show morphemic importation without substitution. They are classified according to the degree of phonemic substitution. The following is the list of loanwords that are studied in alphabetical order.

- access, accessories, account, activate, adapter, alarm, album, android, animation, antenna, antivirus, app, application, attack, attacker, audio, audio CD, auto, autofocus
- background, back up, bank, banking, barcode, battery, bill, black lists, blog, blogger, bluetooth, body, boost, booster, box, brand, built-in, burn, business
- calendar, call, call center, call log, caller ID, camcorder, camera, campus, card, card reader, card slot, case, category, CCTV camera, CD Drive, CD Rom, certificate, channel, charger, charging, chatting, chips, cinema, circuit, clear, click, clock, clone, code, colour, comment, computer, configuration, connect, contact, content, conversion, convert, converter, cookie, copy, cordless, cover, cyber crime
- data, database, data path, data transfer, default, degree, design, desktop, developer, device, dial, dictionary, digital, direct, directory, disable, display, document, double click, download, drag, dual-core, DVD, DVD burner, DVD writer
- e-book, earphone, edit, editor, effect, e-government, e-journal, electronic, e-mail, enable, energy, engineer, enter, e-passport, error, e-service, e-visa, external memory, external drive, exist
- face book, fault, feature, fiber internet line, file, firmware, flash, flash drive, folder, follow, font, form, format, forum, front-camera, front-facing, function, fuse
- gallery, game CD, gamer, gesture, g-mail, Google, graduate, graphic, G-talk
- hack, hacker, hand-free, handset, hard-disk, hardware, HD screen, headphone, hide, hi-fi, history, home page, home theatre, home user, hotspot, hybrid
- icon, image, import, infrastructure, install, installation, installer, interactive, interface, internal memory, internet, interview, i-pad, i-pod
- jailbreak, Java, journalism, junk mail
- key, keyboard, keypad, keyword

- lamp, laptop, latest, launcher, LCD TV, LCD display, LED, level, light, lighting, like, link, live, local network, location, lock, log on, log in, log out, logo

- mail, main, malware, manger, manual, market, media, mega-pixel, member, memo, memory, memory card, memory stick, menu, message, microphone, micro SD card, mobile, model, modem, modify, monitor, motherboard, motion, mouse, movie, multimedia, multiplayer, multiple, multi-screen, multi-task, multi-user, music

- navigate, netbook, network, notebook, notification, notification bar, number

- official, offline, online, open-source, operate, option, original, output

- package, page, password, pattern, PC, PDF-file, performance, phone, photo, platform, player, playlist, plug-in, point, port, portal, portable, post, power, pre-paid, presentation, press, preview, printer, privacy cleaner, process, processor, product, profile, program, programmer, project, projector, promotion, protocol

- quad-core
- radio, read, reader, reboot, rechargeable, record, recorder, redial, register, release date, reloadable, remote, reset, resolution, restart, restore, resume, right-click, ringtone, roaming
- satellite, scam, scan, scanner, scores, screen, screenshot, scroll, SD card, security, sensor, series, server, service, service unit, setting, share, shock, shockproof, shortcut, shuffle, signal, signboard, silent, site, size, slot, smart device, smart glass, smart phone, smart TV, SMS, software, special effect, speed, spyware, stand by, sticker, stop, storage, supercomputer, superior, support, swipe, sync, system, tab, tablet, tag, task killer, terminal, textual, thread
- thumbnail, timer, tool, touchpad, touch screen, traffic, tripod, TV, tweet
- ultrabook, ultraslim, unicode, uninstall, unlock, update, upgrade, upload, up-to-date, URL address, USB, USB cable, user
- wall, wallpaper, warranty, waterproof, web, webcam, web police, web postal, website, white list, widget, Wi-Fi, window, wireless, wireshock, WLAN, workshop, write
- version, vibrate, video, virtual, virus, voice, voice connect, voice mail
- zone, zoom, zip   (420 words)

These loanwords are categorised according to three manners of borrowing: non-phonemic substitution, partial phonemic substitution and complete phonemic substitution. Ten loanwords from each category of phonemic substitution are given as examples below.

As seen in the three tables of phonemic substitution, with regards to non-phonemic substitution category, the loanwords are usually imported with the pronunciation as close as possible to the original sound patterns. However, they lack stress which is hardly found in tone languages like the Myanmar language. Concerned with the partially and completely morphemic substituted loanwords, consonant clusters are usually simplified and final consonant sounds are usually deleted or dropped. Moreover, the use of wrong vowel or sound is also common. In the last group, complete phonemic substitution, all the above problems are combined and their degree of assimilation is the highest.

Examples of non-phonemic substitution

No.	Non- phonemic substitution	English Pronunciation
1	animation	/ˌænɪˈmeɪʃn/
2	body	/ˈbɒdi/
3	copy	/ˈkɒpi/
4	location	/ləʊˈkeɪʃ ə n/
5	logo	/ˈləʊgəʊ/
6	sensor	/ˈsensə(r) /
7	sticker	/ˈstɪkə (r) /
8	timer	/ˈtaɪmə (r) /
9	user	/ˈjuːzə (r) /
10	zone	/zəʊn/

Examples of partial phonemic substitution

No.	Partial phonemic substitution	English Pronunciation	Myanmar Pronunciation
1	connection	/kəˈnekʃn/	/kɒneʃn/
2	keyboard	/ˈkiːbɔːd/	/kiːbəʊ(t)/
3	lock	/lɒk/	/lɒ/
4	market	/ˈmɑːkɪt/	/mɑːket/
5	mobile	/ˈməʊbaɪl/	/məʊbaɪ/
6	notebook	/ˈnəʊtbʊk/	/nəʊtbʊ/
7	product	/ˈprɒdʌkt/	/prɒdʌt/
8	screen	/skriːn/	/səkərɪn/
9	site	/saɪt/	/saɪ/
10	tag	/tæg/	/tæ/

Examples of complete phonemic substitution

No.	Complete phonemic substitution	English Pronunciation	Myanmar Pronunciation
1	antenna	/ænˈtenə/	/ɪntənə/
2	bank	/bæŋk/	/ben/
3	call	/kɔːl/	/kɔː/
4	card	/kɑːd/	/ke(d)/
5	direct	/daɪˈrekt/	/daɪjaɪ/
6	network	/ˈnetwɜːk/	/netwɒ/
7	number	/ˈnʌmbə(r) /	/ne(m)bæ/
8	remote	/rɪˈməʊt/	/rɪmuː /
9	wireless	/ˈwaɪələs/	/wəjəle/

Loanblends

This is a special type of borrowing. Loanblends show morphemic substitution as well as importation. It's a kind of partial substitution which can be seen in compound words with

one word imported and the other word directly substituted or translated. The following are the loanblends studied.

No.	English Words	Loanblends
1	3D cinema	3D ½y&Ši½N
2	3D glasses	3D rsuHĕf
3	3G image	3D y&yĺ
4	Account Name	Account eHrnĺ
5	camera lens	camera rĕbľvĺ
6	cyber attack	cyber wlubluH
7	cyber criminal	cyber 'þ½Luĺorm;
8	electronic market	electronic apsuĺuĺ
9	electronic library	electronic pmĺLunĺwĺuĺ
10	email address	email vĺĺpm
11	email service	email 0eĺaqmiHĺ
12	entertainment hub	azmĺĕjza&;hub
13	file size	file t&ĺĺ ftpm;
14	front camera	a&ĺuiHr&m
15	Internet page	Internet pmrsuEĺ
16	Internet wi-fi system	internet wifi pepĺ
17	mobile internet system	mobile internet pepĺ
18	mp3 file	toĺĺfile
19	Myanmar font	jreHm font
20	network security	network vĺĺclĺ&;
21	network technology	network enĺynm
22	online system	online pepĺ
23	Phone internal memory	Phone wĺĺrŠv0mPĺ
24	Plastic body	Plastic uĺĺ ĺxnĺ
25	power button	power cvĺwĺ
26	pre-paid card	ĺuĺwiĺiĺznĺĺcard
27	roaming network	roaming uĕ&uĺ
28	Rooting system	Rooting pepĺ
29	Social network website	vĺrĺĺuĕĺ, u0uĺqĺuĺ
30	stereo system	stereo pepĺ
31	webpage	web pmrsuEĺ
32	website address	e-mail vĺĺpm
33	wi-fi system	wi-fi pepĺ
34	wireless internet	ĺuĺĺrĺinternet
35	wireless network	wireless uĕ&uĺ

Loanblends in alphabetical order

Loanshifts

This type of borrowing shows morphemic substitution without importation. This includes loan translation and semantic loans as mentioned before. In this paper, only loan translation is focused. Loan translation is a direct translation of the elements of a word into the borrowing language. The following is a list of borrowed words whose parts or morphemes are translated item by item into the equivalent parts or morphemes in the Myanmar language.

No.	English Words	Loan translation words
1	accessory	qubylypinf
2	address	vtylpm
3	advertisements	aMumjim
4	attack	wLublubnf
5	attacker	wLublubl
6	auto system	tvlltavmubepf
7	background	aemubH
8	battery	"mvtlJ
9	body	uklixnf
10	brand	wkbqyf
11	button	cvlwf
12	call	ac:qlH
13	capture	ykdyzrf, lbnf
14	charge	tm;olftonf
15	charger	tm;olftpuf
16	click	Elylonf
17	clone	twk
18	command	trellay;apclltonf
19	connect	cslvfqubnf
20	content	rmwLum
21	control	xefcslylonf
22	contact list	qublt, rpm&if
23	copyright	ryllt6ih
24	cover	tzll
25	data	tcsuftvul
26	data storage	tcsuftvublltfqnfrl
27	device	ypinf
28	edit	wntjzwf
29	energy	plftil
30	face detection	rsuEfiyKdyzrf, by;jcif
31	function	vlyaqmitsuf
32	hanging	av;vlH
33	headphone	em;lLuyf
34	homepage	yilrpmrsuEfi
35	image	ykdyf
36	install	xnlbllttoljylonf
37	landline phone	Lultzlef
38	lens	relbNvt
39	location	wnlae&m
40	logo	trSvlvwkbqyf
41	lyric	pmOm;
42	map	ajrykl
43	market	aps;uSuf
44	memory	rSv0mPf
45	memory system	rSv0mPpepf
46	move	ajymifa&llonf
47	music	aw;*lv
48	network	ule&uf
49	network system	ule&upepf

50	page	pmrsuEši
51	photo	"mvvlyki
52	pre-paid system	Bukwiaiay;oïljcifpepf
53	product	xkwiulef
54	promotion	ta&mifjrfivijcif
55	quality	t&nftaoé;
56	register	rivlykwibnf
57	restore	jynivn&,bnf
58	satellite	Ii*kvixk
59	screen	rišiom;jyif
60	search result	&fiazfi&v'f
61	service	Oeaqmirl
62	share	a0rlbnf
63	size	t&é; ftpm;
64	SMS	pmvki
65	SMS system	pmvwjbepf
66	social network	vriia&;uefi&uf
67	social network service	vriia&;uefi&uDeaqmirl
68	sound system	tobepf
69	support	taxmuftyki
70	system	pepf
71	technology	enfynm
72	TV	½xljribkium;
73	type	pm½iubnf
74	ultra-slim body	tveiyg;vinaomuki ixnf
75	vibration	wketgrl
76	warranty	tmrcki
77	waterproof	a&plbkom
78	wireless	Bukirh
79	wireless system	Bukirbepf
80	yellow pages	tOga&mijbmrsuEši

Loanshifts in alphabetical order

Miscellaneous

     Some words belong to more than one group of borrowing. For example, the word 'data tcsuftvuf is a combination of two words, one word imported 'data' and another one substituted 'tcsuftvuf. However, the imported word 'data' and the substituted word refer to the same idea or thing. Such cases occur in words like 'aemucki background' and 'click Eiyf' The following table shows the words which have been sometimes imported without morphemic substitution and sometimes with morpheme substitution.

Findings

     Normally, loanwords are assimilated to the phonetic sound classes and the phonological patterns of the borrowing language, the original consonant and vowels are replaced by consonants and vowels as close to them as are available. (Robins, 1989) After studying lexical borrowing in the area of science and technology, the following points are found. The first point is that of all three manners of loanwords, partial phonemic substitution is the most common route through which loanwords enter the Myanmar language. In the cases where a loanword has a very unusual sound, complete phonemic substitution occurs. It is also found out that in the process of phonemic substitution, the use of wrong vowel or sound is very common and
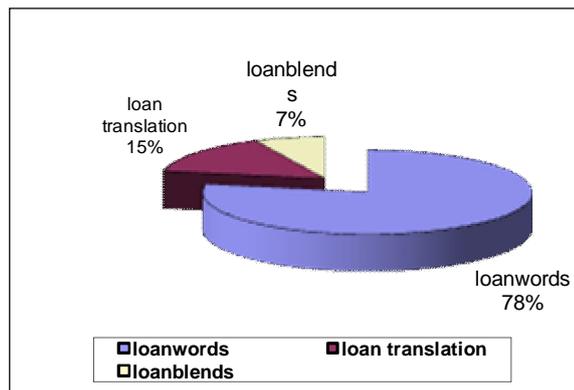
there is a high tendency to drop most last sounds of the loanwords. In addition, in the case of loanwords, whether a loanword is phonemically substituted partially or completely or not largely depends on such sociolinguistic factors as the user's command of English, his exposure to that particular loanword, his attitude towards the borrowing language and the context in which the loanword is used. Moreover, as seen in the following pie-chart, it is clear from this study that the number of loanwords accounts for the highest percentage of all types of borrowing. All in all, according to the nature loanwords possess, they result in making an invaluable contribution towards enriching the lexicon of the Myanmar language.

No.	Loanwords	Loan translation
1	accessory	qubylypinf
2	attack	wLubLurl
3	contact list	qubof; rbm&if
4	content	rmwvLum
5	cover	tzl
6	data	tcsuftvuf
7	device	u&d m
8	edit	wnfjzwf
9	energy	pftif
10	location	wnbe&m
11	map	ajryl
12	market	apsubuf
13	memory	rwOmPf
14	move	ajymita&lonf
15	music	aw;*lv
16	product	xlwlubf
17	quality	t&nftaof
18	service	Oebqmirl
19	share	aOrbonf
20	system	pepf
21	warranty	tmrcl

Loanwords that belong to more than one type of borrowing

Discussion

When an object that has not been encountered before in a particular language is to name, it is natural to turn to borrowing. The last few decades have seen dramatic technological advances. As a consequence, a tremendous number of borrowed words have flooded into the Myanmar language. These words have been adapted to fit into the nature of the Myanmar language. When analysing these borrowed words, it was quite problematic to categorize them as regards with the theory of loanwords. As a language is partly shaped by its users, whether a particular loanword is to be imported or substituted partially or completely largely depends on the individual members of a speech community. There are, of course, stages in importation and substitution of borrowed words. Over time, they may be modified and may gradually shift till they fit the borrowing language, the Myanmar language. During this course, some loanwords may die while some loanwords survive and become part of the Myanmar language and are treated by the speakers as though they were native lexicon.

The percentage of the three types of borrowing
(The number of total loanwords studies in this paper is 535 words.)

Summary

In the evolution of a language, borrowing is an inevitable phenomenon. When entering the Myanmar language, words undergo three main different types of borrowing. The most common type is loanwords which go through some forms of phonemic substitution. It is clear that, in naming new things, it is more convenient to borrow a word for a new thing than to make one up. Moreover, translated words are less direct and sometimes lengthier than the original words to express a particular concept. Owing to the large number of new technological words, loanwords are by far the best solution of all. As stated by Trask (1996), the process of borrowing is "one of the most frequent ways of acquiring new words and speakers of all languages do it.

Acknowledgements

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