

## Code-switching Functions in Facebook Wallposts

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### Abstract

Social media is a digital medium that allows “written speech” and represents a new domain for studying multilingual language practices in face-to-face interactions. The study examined languages used in Facebook wallposts by multilingual users in Malaysia and the functions of code-switching in the communication. Using Gumperz’s model of conversational code-switching, 24 students’ Facebook wallposts were analysed. The results showed that students preferred to use the language they write best. English was used either as the base language or the code-switched language, indicating that English is inevitably an essential language in Facebook interactions. Code-switching was used mainly for personalization and interjections (37% each) as the wallposts were targeted at rapport building. Expressiveness was largely conveyed through fillers (e.g., *ar, la*). There was some code-switching for message qualification (21%) to soften or strengthen a comment rather than to enhance the clarity of messages. However, the features of the digital medium made some functions of code-switching irrelevant, particularly addressee specification, quotation, reiteration and referential functions. The finding on code-switching functions not having the same salience in social media and face-to-face communication indicate that written speech is similar to, but not the same as, oral interactions.

**Keywords:** *Facebook, code-switching, multilingual, substitution, interjections*

### Introduction

The functions of code-switching in oral interactions are well-understood. It is the use of more than one code or language in the course of a single speech event (Gumperz, 1982), and the main language used is referred to as the base language (Poplack, 1980). For instance, customers and sellers code-switch for numbers (prices, quantity) and product descriptions (Lau & Ting, 2014; Pan, 2000; Soong & Ting, 2014). In education, instructors code-switch to construct knowledge, mark salient information, and manage students (Butzkamm, 1998; Cahyani, de Courcy, & Barnett, 2017; Greggio & Gil, 2007; Martin, 1999; Reini, 2008; Setati, 1998; Then & Ting, 2010, 2011). In addition, code-switching to English often occurs for modern terminology (e.g., computers, science; Riney, 1998), whereas code-switching to ethnic languages is for culturally-loaded words. Compared to oral interactions, other languages are used in formal written communication in the absence of equivalent terms, and in advertisements for rhetorical effect (Li, 2000; Luna & Peracchio, 2005).

It is possible for code-switching practices in face-to-face interactions to transfer to social media communication because of the instantaneity of message transmission. The medium for social media communication is written because the text is typed in the digital media but users have been using abbreviations and compressed word spellings to speed up encoding of messages (Hu, Talamadupula, & Kambhampati, 2013). In the place of nonverbal cues, which are present in face-to-face interactions, emoticons, capitalization and punctuations are used. The use of emoticons in Netspeak is a revolution in language use (Crystal, 2006).

Less is known about code-switching in social media communication such as Facebook, Twitter, LinkedIn and Instagram. Websites are composed in different languages for text, images and audio-visual text, and this may influence the extent of code-switching. Besides this, the formality of the social media platform is also a factor. In this sense, LinkedIn, which is mainly for informational exchange among professional contacts, would have less code-switching than Facebook status updates, which are oriented towards social connectedness. Facebook allows “communication

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through private or public messages, a chat, online fora, photos, videos, links, a personal Wall, and News Feed, where friends or participants can post their messages and comment on topics” (Pérez-Sabater, 2012, p. 82). Pérez-Sabater suggested that online communication is a genre of its own and the conventional registers of language may no longer be descriptive of current language usage. Hence, the functions of code-switching in social media communication need to be studied to find out whether they perform the same functions as in face-to-face interactions. If similarities are present, this could mean that social media communication is blurring the distinction between spoken and written communication, and the social media platform is a spoken mode of communication.

The present study examined languages used in Facebook wallposts by multilingual university students in Malaysia and the functions of code-switching in the communication.

### **Literature Review**

The languages used in the code-switching in social media communication are of interest because English is regarded as the *de facto* lingua franca of the Internet (Danet & Herring, 2007). Some researchers found that the domination of English in social networking sites leads to a reduced use of minority languages (Cru, 2015; Honeycutt & Cunliffe, 2010; Sohail & Malik, 2014). Androutsopoulos (2015) reported that Greek and German secondary school students in Germany used English and their own languages in their Facebook wall events. English is also frequently used by Polish and Hindi Facebook users (Dabrowski, 2013). Cárdenas-Claros and Isharyanti (2009) found that the topics that prompted code-switching to English in MSN messenger exchanges of Indonesian and Latin American students were farewells, computer-related terms, academics and sports. However, as users can edit content and review it before posting (Sohail & Malik, 2014), code-switching in social media communication may not be due to language proficiency constraints.

Research has shown that some functions of code-switching prevalent in face-to-face oral interactions are also applicable in social media communication. For example, code-switching serves referential, expressive and metalinguistic functions in Facebook status updates of students (Choy, 2011). Another study (Halim & Maros, 2014), using Gumperz’s (1982) semantic model of conversational code-switching, focussed on 439 Facebook updates of five Malay-English bilingual lecturers in Malaysia. Their analysis revealed that code-switching was used for quotation, addressee specification, reiteration, message qualification, clarification, emphasis, checking, indicating emotion, and cultural terms but no frequencies were reported. “Indicating emotion” is not a function of code-switching in Gumperz’s (1982) model, although he had interjection which has a similar expressive function. Halim and Maros (2014) coded code-switching for cultural terms as “switching for availability.” In another study, Caparas and Gustilo (2017) analyzed status updates and wallposts of 50 Facebook accounts of students in Mindanao, the Philippines. Their analytical framework was taken from Hoffmann (1991) and Saviile-Troike (1986) but most of the code-switching functions found in the study were the same as Gumperz (1982). Their results showed that the students code-switched mainly because of real lexical need. These studies sought to identify the functions of code-switching in social media communication but did not discuss the results in relation to oral interactions. It is important to explore this angle because Gumperz’s (1982) model was originally formulated to explain functions of code-switching in face-to-face conversations.

In fact, studies have revealed that code-switching in social media communication is not as extensive as was assumed. For example, Shafie and Nayan (2012) reported that code-switching was minimal in Facebook wallposts (11.36%) and Facebook comments (2.27%) of Malaysian university students. Malay was used in 57.56% of their Facebook wallposts and in 94.67% of their Facebook comments. However, analysing the percentage of code-switching or number of turns with code-switching only shows how frequently more than one language is used in the course of a single speech event but not the reasons for the code-switching, including whether linguistic choices are manipulated to convey intended meanings. Pérez-Sabater (2012) was of the view that the stylistic variations in form and substance of the online genre were not conventionalised enough because of the new medium of communication, and these aspects should be further investigated.

## Theoretical Framework of Study

The theoretical framework for this study is Gumperz's (1982) semantic model of conversational code-switching, which has been employed to understand functions of code-switching for almost four decades. This model can explain why a speaker switches language in a particular context and how linguistic choices are manipulated to convey intended meanings against the backdrop of "the multiple relations between linguistic means and social meaning" (Onyango, 2009, p. 153). Gumperz (1982) categorized code-switching into situational and metaphorical code-switching. Situational code-switching takes place with changes in the setting, topic or participants (Blom & Gumperz, 1986). The classic example given is a teacher who delivers a lecture in Bokmål but speaks to his student in Ranamål to redefine a formal situation as an informal activity. Metaphorical code-switching occur without being triggered by changes in the social situation. The metaphorical functions of code-switching are quotation, addressee specification, interjections, reiterations, message qualification, and personalization versus objectivization (Table 1).

**Table 1.** Code-switching Functions in Semantic Model (Gumperz's, 1982, pp. 75–81)

Function	Description	Example
Situational code-switching	Codeswitching resulting from a change in social setting: Topic, setting or participants.	
Metaphorical code-switching		
1. Quotation	Serves as direct quotations or as reported speech.	She doesn't speak English, so, <i>dice que la reganan: "Si se les va olvidar el idioma a las criatura"</i> (she says that they would scold her: "the children are surely going to forget their language")
2. Addressee specification	Serves to direct the message to one of several addressees.	A: Sometimes you get excited and then you speak in Hindi, then again you go on to English. B: No nonsense, it depends on your command of English. A: [shortly after turning to a third participant, who has just returned from answering the doorbell] <i>Kan hai bai</i> (who is it)?
3. Interjections	Serves to mark an interjection or sentence filler for the purpose of conveying surprise, strong emotion, or to gain attention.	A: Well, I'm glad I met you. B: <i>Andale pues</i> (O.K. swell). And do come again. Mm?
4. Reiteration	Serves to repeat a message from one code to another code either literally or in somewhat modified form.	Keep straight. <i>Sidha jao</i> [louder] (keep straight)
5. Message qualification	Serves to qualify constructions such as sentence and verb complements or predicates following a copula.	The oldest one, <i>la grande la de once anos</i> (the big one who is eleven years old).
6. Personalization versus objectivization	Serves to distinguish between talk about action and talk as action, the degree of speaker involvement in, or distance from, a message, whether a statement reflects personal opinion or knowledge, whether it refers to specific instances or has the authority of generally known fact.	A: <i>Vigala ma ya sa america</i> (Wigele got them from America) B: <i>Kanada pridala</i> (it comes from Canada). A: <i>kanada mus I saegn nit</i> (I would not say Canada).

Researchers are sometimes questioned for using Gumperz's (1982) semantic model of conversational code-switching because it is an old model. Later models such as Eastman (1992) viewed code-switching as marked and unmarked choices in the context of social, economic, and political power differences. Eastman (1992) shared Gumperz's (1982) view that code-switching was not always a product of context and code choice can be manipulated to create contexts. Eastman's (1992) model is more appropriate for researchers interested in language policy and planning interventions whereas Gumperz's (1982) model is more suitable for analyzing communicative intention in everyday communication (Gumperz, 2008). Furthermore, Gumperz's (1982) model is adequate to account for a wide range of reasons for code-switching. The only addition, perhaps, is the referential function whereby code-switching is used to introduce words which the speaker is familiar with (e.g., cultural terms, formulaic expressions) or to compensate for words that the speaker does not have immediate access to. The latter is similar to one of the 10 code-switching functions given by Hoffman (1991), which is code-switching to meet a real lexical need or to compensate for lack of an equal translation.

Considering that the focus of the present study is on the social meanings of code-switches in the context of community language norms within the interactional sociolinguistics paradigm, conversation analytic approaches are not relevant. For instance, Auer (1999) studied the conversational and social functions of language alternation phenomena ranging from codeswitching, to language mixing, and fused lects in the context of preceding and following utterances, that is, from an emic perspective with minimal reliance on the broader social context for interpretation of the meaning of code-switches. Myers-Scotton's (1997) Matrix Language Frame model is also not relevant for the present study on functions of code-switching as we do not seek to perform a grammatical analysis of the embedding of code-switches into the matrix language frames.

### **Method of the Study**

In this study, the Facebook wallpost was selected to examine how users engage in real exchanges, unlike Twitter which is a micro-blogging site, and Instagram which is primarily for uploading and posting pictures. The corpus comprised Facebook wallposts of 24 students aged 20–23 in years 1 to 3 in a Malaysian public university. They were from different ethnic groups (10 Chinese, 6 Malay, 7 Sarawak indigenous comprising mainly the Iban).

Most of the students could speak two to three languages—their ethnic language, as well as the Malay language and English which are taught formally in school from age seven. However, they were not equally fluent in these languages. The Malay, Iban, and Bidayuh students were more fluent in Malay than the Chinese students. In contrast, the Chinese students were the most fluent in English among the ethnic groups. It should be noted that not all Chinese students have formal Chinese education; therefore, some may only know how to speak the language but not write, while others may not understand Chinese at all.

The students were asked to use the print screen function and copy their Facebook conversations into a Microsoft word file. The selection criteria were that the conversations involved: (1) two or more users, and (2) people in frequent contact. There was also no restriction on the topic and date of the exchange. The corpus consisted of examples that are self-selected by the students, and may therefore reflect self-report norming tendencies. However, as the study was not on the topics of Facebook communication, the self-selection was not a major concern. The word count for the students' wallposts, including those of their Facebook contacts, was 6,092 words.

For the data analysis, the base language and code-switching in the wallposts were identified. For example, "thank you" comprising two words was coded as one instance of code-switching. For functions of the code-switching, the second author coded the code-switching functions on the transcripts and these were checked by the first author, with reference to Table 1.

## Findings and Discussion

This section reports the results on the base languages and functions of code-switching. Excerpts are verbatim and square brackets show information inserted by the researchers. Code-switching is marked by bolding of words and languages other than English are italicised. The code-switching function is marked in capital letters. In this paper, the term “Chinese students” refers to Malaysian students of Chinese descent.

### *Languages Involved in Code-switching in Facebook Wallposts*

The Facebook wallposts among friends were either in English or Malay (Table 2). The posts were mainly comments on photo, fashion, food, events (e.g., holidays), studies (e.g., handwriting, exams, waking up early, appointments), venting of emotions, television programs and lecturers. These topics were expected as the students were interacting with their friends or course-mates. The topics were from the everyday domain (Feez, 1998) and technical terms were hardly used.

**Table 2.** Base Languages Used in Facebook Wallposts

<b>Ethnic group</b>	<b>Base language</b>	<b>Frequency</b>
Chinese ( <i>n</i> =10)	English	9
	Chinese	1
Malay ( <i>n</i> =7)	English	1
	Malay	6
Iban and Bidayuh ( <i>n</i> =7)	English	3
	Malay	1
	Iban	3

The language choice is influenced by the students’ own ethnicity. All but one Chinese student used English as the base language, and they switched to either Chinese or Malay, or both. In daily communication, Chinese students often speak Mandarin but it is faster for them to type in English. If they were to use Mandarin, they have to type the pinyin pronunciation to get the Chinese characters. All but one Malay student used standard Malay as the base language because their friends were from all over Malaysia. This avoids differences of regional Malay dialects and the need to improvise spelling. The Sarawak indigenous students (Iban and Bidayuh) were equally likely to use either Iban or English as the base language, indicative of their better command of these languages.

The findings on base languages in Facebook wallposts support Lee’s (2017, p. 23) statement that online, the language choice “is mostly concerned with the codes or linguistic resources available to online participants and how they negotiate their code preferences when communicating with others who may or may not share these resources, regardless of their competence in the resources concerned.” Lee (2017, p. 5) further stated that “language choice on the web does not always reflect language use in offline communication contexts.” However, the results of the present study show that languages involved in code-switching are similar to those in face-to-face interactions (e.g., Lau & Ting, 2014; Pan, 2000; Soong & Ting, 2014; Then & Ting, 2010, 2011).

English definitely marks social media communication (Dabrowski, 2013) – although only one of six Malay students used English as the base language, most of the Chinese students used English and about half of the indigenous students did so.

### *Functions of Code-switching in Facebook Wallposts*

Table 3 shows that the most frequent functions of code-switching in the students’ Facebook wallposts were personalization versus objectivization (37.04%), and interjection (37.04%).

**Table 3.** Frequency and Percentage of Functions of Code-switching in Students' Facebook Wallposts

Functions of code-switching	Frequency	Percentage
Personalization versus objectivization	100	37.04
Interjection	100	37.04
Message qualification	57	21.11
Addressee specification	8	2.96
Quotation	4	1.48
Reiteration	1	0.37
Referential function	0	0
Total	270	100.00

The students code-switched was mostly for personalization rather than objectivization, that is, to increase speaker involvement in a message (Excerpt 1).

*Excerpt 1*

Participant 4: *Mesti ar ... erm thniah sbb dpt jumpa mummy fauziah nawi ... hahaa*  
[Sure ar ... erm congrats because you can meet fauziah nawi..hahaa]

PERSONALIZATION

Friend: *Tahniah ape ke bende nye ... hahaha*  
[Congrats for what ... hahaha]

Participant 4 said “mummy” instead of “mak” (in Malay) because “mummy” (or sometimes spelled “mami”) is a variation of greetings for mothers along with “ibu” or “umi” in Malay. The Chinese students sometimes switched to Hokkien for personalization, but as Chinese dialects do not have its own orthography, the words are spelt according to the sound (e.g., “saiiii” meaning “shit”, Excerpt 4, line 2).

Next, interjection frequently appeared in the Facebook wallposts, and these fillers conveyed surprise, or other strong emotions (Table 3). For example, “Chuah Yong Heng I am *song u ma* happy lo Lol” meaning “I like it. You are also happy lo. Lol.” Other fillers used were *ar, la, lo, le* and *ba*, and the meanings are understood by others in the same community. For example, Participant 15 replied “*Ya la* wont drunk *la* ... lol” in response to her friend’s invitation to drink alcohol to ease despondent feelings. The first *la* was used to show agreement and the second *la* reassured her friend that she would not get drunk. Other studies show the frequent use of fillers by Chinese speakers (Cheng, Huang, & Tang, 1996; Huang, 2007). Based on their study of interpersonal online chat messages (ICQ or I Seek You), Fung and Carter (2007) reported that international students in the United Kingdom and their bilingual friends in Hong Kong frequently borrowed discourse markers such as *tim, la, ma* and *wor* from Cantonese. Interjections using fillers have an expressive function.

After personalization and interjection, the third most frequent function of code-switching is message qualification (21.11% of 270 instances). Excerpt 2 shows how message qualifications softened a statement.

*Excerpt 2*

Friend: NO!! when?? So sorry to hear that Participant 12  
Participant 12: Last day of study week. X *perasan kah* I change phone.  
[Last day of study week. Didn’t notice that I changed phone kah?]

MESSAGE QUALIFICATION

Friend: Participant 12 owh, I see ... *tak perasan pun* ... haha ... anyways, good luck for the last paper ☺  
[Participant 12 owh, I see ... didn’t notice even ... haha ... anyways, good luck for the last paper ☺]

MESSAGE QUALIFICATION

Participant 12: Friend I need time more than luck. Never ever be fooled by her number of slides over there lol

Participant 12, a male Malay student, was messaging his friend, a female Indian student, in English. He switched from English to Malay (*X perasan kah*) to soften the insinuation to his friend for not noticing that he had bought a new telephone. His friend was apologetic and maintained the use of the same phrase in Malay.

The study revealed that Facebook wallposts hardly contained code-switching for addressee specification (2.69%) because tagging takes over this function. Excerpt 3 shows one of the eight instances of addressee specification using code-switching. Participant 17 switched from Malay to English (“sir”) to direct the communication to her lecturer because her friends were also in the loop. Besides tagging, name or nicknames are also used in a chained discussion (Lin & Qiu, 2012) to make it easier for others to follow the threads in online conversation on a topic and to connect the Facebook comments to previous and future discussions. Excerpt 4 shows that Facebook users do not have code-switch but can mention names to direct specific messages to them (Turns, 11, 12 and 16).

*Excerpt 3*

- 1 Friend: Hmmm
- 2 Participant 17: -
- 3 Lecturer: **sempat**  
[in time]
- 4 Participant 17: Hahaa **sempat juak tadik** Sir **mahwaku**  
[Hahaa in time just now Sir. Oh my god]  
ADDRESSEE SPECIFICATION (Sir)
- 5 Lecturer: **dari siney sebenarnya?**  
[Actually where did you come from?]
- 6 Participant 17: **Dari rumah tadik alu terus jumpa ktk** Sir. Haha **pasnya bsiar-siar dolok kmk 3. Ckup jam lalu turn koq.**  
[From house just now, then directly came to see Sir. Haha didn't manage to laze around first. We three. As soon as it's time, we came for co-curriculum]  
ADDRESSEE SPECIFICATION (Sir)

*Excerpt 4*

- 1 Participant 16: Nah!!! Ltr plagiarism k? I quote u *ar*  
[Here you go! It will be considered plagiarism later okay? I will quote you, (be careful)]
- 2 Friend 1: **Saiiii** remove pls haha. How much? Say *la*  
[**Sh\*t**, please remove it. How much? Name your price]
- 3 Participant 16: **Mai** ... Let ppl see I quote frm u  
[**Don't want** ... Let people see that I quote from you]
- 4 Friend 1: 4.0 **liao lclly liao**  
[**Already a big lousy show-off**]
- 5 Participant 16: I say **bo tio bo** (QUOTATION)  
[I say **it's not correct**]
- 6 Friend 2: i 2.0 ... lose you all 1 or 2 only ... not much only ... yeah!!!  
[I get 2.0, lose to all of you by 1 or 2 only. Not much only. Yeah!]
- 7 Participant 16: U **sot ar**  
[You **crazy or not?**]
- 8 Friend 3: Geng **wor** 4.0 **gong xi gong xi**  
[**My gang got 4.0, congrats, congrats**]
- 9 Friend 4: -  
[-]

- 10 Participant 16: Friend 3 [name in full] I **bo** get 4.0 plus **mai** listen tht och  
[Friend 3, I **didn't** get 4.0 plus, please **don't** listen to that person]
- 11 Participant 16: Friend 4 [name in full] whn **ai** see me?  
[Friend 4, when do you **want** to see me?]
- 12 Friend 5: pro wor u 2, both also score 4.0 ... ez life  
[You 2 are pro, both also score 4.0, easy life]
- 13 Friend 4: Student 16 [name] **it's obvious that you didn't make an appointment** [in Chinese characters]  
[Participant 16, **it's obvious that you didn't make an appointment**]
- 14 Friend 6: Geng wor ... I pass or fail also a problem **ar** haihh life so unfair ...  
[Gang, I pass or fail it's also not a problem, **ar**, life is so unfair]
- 15 Participant 16: Friend 5 [name in full] **tolong wa bo take tiok** 4.0  
[Friend 5, please, **I did not get 4.0**]
- 16 Friend 4 [name in full] where gt o???  
[Friend 4, I didn't get it]
- 17 Friend 6 [name in full] tio say **bo** 4.0 **liap** (QUOTATION)  
[Friend 6, Tio say '**no** 4.0']
- 18 Friend 6: Hahaha **saja** wan **kek** u **nia** ...  
[Hahaha, I **only** want to **disturb** you]

Code-switching for quotation in Facebook wallposts was infrequent (1.48%). Excerpt 4 shows the quotations in capital letters and the code-switched words were italicised. Two of the four quotations in this dataset were from Participant 16. Quotations in social media communication are marked by the word “say” to indicate reported speech by a particular person. For example, in Turn 5, Participant 16 said “I say bo tio bo” which means “I say it's not correct.” In oral interactions, quotations do not have to be pre-empted by the words “X says” because the switch in language signifies that it is a quotation.

Only one instance of reiteration was found. Participant 8 said “*Btul2 ... Dui la*” (“Correct, that is correct”). The first “correct” was said in Malay, and it was emphasised in Chinese. Reiteration for the purpose of clarity is not crucial in Facebook interactions because the messages are typed and can be reread—unlike speech which cannot be retrieved if it is not recorded.

Taken together, the results showed that in Facebook wallposts, the students code-switched mainly for personalization and interjection, and to some extent, message qualification. These code-switching functions suggest that users are more concerned with rapport building rather than information exchange, which can also explain the absence of code-switching for referential function as they did not use technical or cultural words.

## Conclusions

The study yielded three main findings on social media discourse features of multilinguals. First, the base language is either English or Malay, depending on the users' ethnic background. The Chinese and Malay users preferred to write in standard Chinese and standard Malay, respectively, rather than their dialects because the latter required improvisations in the spelling based on the sound. In the case of the Sarawak indigenous group (Iban and Bidayuh), this study showed that they were equally likely to use either Iban or English as the base language. Iban speakers can type in Iban using the typical keyboard but they may also use improvised spelling. However, it is unlikely for Bidayuh speakers to choose Bidayuh as the base language for communication because of the great regional variation of the Bidayuh language spoken in Lundu, Padawan, Serian, and Penrissen (Rensch, Rensch, Noeb, & Ridu, 2006). Hence, Bidayuh speakers are more likely to use either English or Malay. The results also lend support to Androsoutopoulos' (2015, p. 188) contention that the literacy constraints of digital media make “language users stick to the language they write (rather than speak) best” rather than vernacular languages which lack standardised orthography. Among the

standard languages (English, Malay, Chinese), English is the language that is used as the base language by all the Malaysian university students in the study, regardless of their ethnic background. These results concur with empirical findings on extensive English usage in social networking sites in various parts of the world (e.g., Androutsopoulos, 2015; Cárdenas-Claros & Isharyanti, 2009; Dabrowski, 2013). Therefore, English is indeed the de facto lingua franca of the Internet (Danet & Herring, 2007). In fact, researchers like Cru (2015), Honeycutt and Cunliffe (2010) and Sohail and Malik (2014) were concerned that the extensive English use in social media communication would reduce use of the minority languages.

Second, the main functions of code-switching are personalization and interjection because of the informality of Facebook wallposts. Code-switching for objectivization did not occur because the students' concern was rapport building, and there was no evidence of distancing in the dataset. The social connectivity goal of the communication also explains why there was little need to code-switch to distinguish between personal opinions and facts as information exchange was not a primary goal. The informality of the Facebook wallposts was also seen in the frequent code-switching involving interjection. In this study, sentence fillers or particles (e.g., *ar*, *la*) were used to express various emotions or to gain attention. Extensive research on discourse particles in Malaysian English show that it is a lexical feature of spoken language used in informal contexts (Kuang, 2002; Tay, Chan, & Yap, 2016; Ting, Then, & Ong, 2018). In formal spoken interactions, usage of particles is minimal. In this light, frequent use of interjection in Facebook wallposts injects an element of spoken interactions into written messages sent through a digital medium. Particle usage is typical of oral language used by Malaysians (Shangeetha & Pillai, 2015) and, in this respect, the results on the frequent interjections involving particles lends further credence to the argument that social media communication resembles a spoken mode of communication.

Third, the near-absence of code-switching for reiteration, addressee specification, and referential functions is due to the digital medium. The Facebook users had little need to reiterate their messages because the "written speech" nature of digitally-mediated social communication means that bite-sized messages can be reread. As for addressee specification, this is done via tagging in wallposts and naming of intended readers, which explains why less than 3% of code-switches in the Facebook wallposts were for this function. Choy (2011) found that only 6.35% of the 63 code-switches in Facebook profile pages had a directive function. Next, although past studies (Choy, 2011; Halim & Maros, 2014) have identified the use of code-switching for referential functions in social media communication, the present study showed that the Malaysian university students did not need to code-switch to meet lexical needs or to compensate for lack of an equal translation for cultural terms. They were talking about everyday topics and, more importantly, as pointed out by Sohail and Malik (2014), users can edit content and review it before posting. Since they have time to compose their messages, code-switching for referential reasons did not surface in the present study. Interestingly, Choy (2011) found that 49.21% of the online messages contained code-switching for referential functions, which Choy attributed to the Chinese university students' lack of register in English. The higher proportion of code-switching for referential functions can possibly be due to the descriptive writing in profile pages, as compared to conversations in wallposts in the present study. To sum up, the results on the near-absence of reiteration, addressee specification and referential functions suggest that this is the locus where code-switching functions in the digital medium deviates from those in face-to-face spoken interactions – for which Gumperz's (1982) model was originally formulated to explain. On account of the need to type words onto a keyboard (real or touchscreen), social media communication is done through a written medium and this obliterates certain functions of code-switching that are, perhaps, only relevant in face-to-face spoken interactions.

While the use of code-switching for some functions (notably personalization and interjection) are similar in the spoken and digital media, there are other functions of code-switching that have become less relevant because of the written digital medium (i.e. reiteration, addressee specification, and referential functions). On account of the computer-mediated nature of

communication, it is unlikely that social media communication would resemble spoken interactions in totality. However, the results of the present study suggest that the conventional models on functions of code-switching constructed based on face-to-face interactions may no longer be descriptive of current code-switching practices in social networking sites. The study of multilingualism in face-to-face interactions may be saturated to some extent but the availability of digitally mediated communication opens up a new domain of language use for further investigation. For example, the meaning of code-switching may need to be broadened to include switching between verbal language and non-verbal language (e.g., emoticons). The register and genre of “networked multilingualism” (Androutsopoulos, 2015) needs to be studied because the genre is still evolving. Many past studies have been on code-switching in social networks rather than professional networks where the communication is for informational exchange. Future studies focussing on code-switching in professional networking platforms such as LinkedIn and Publon would yield a better understanding of code-switching and formality of communication.

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### References

- Androutsopoulos, J. (2015). Networked multilingualism: Some language practices on Facebook and their implications. *International Journal of Bilingualism*, 19(2), 185–205.
- Auer, P. (1999). From codeswitching via language mixing to fused lects: Toward a dynamic typology of bilingual speech. *International Journal of Bilingualism*, 3(4), 309–332.
- Blom, J., & Gumperz, J. (1972). Social meaning in linguistic structures: Code switching in Norway. In J. Gumperz & D. Hymes (Eds.), *Directions in sociolinguistics: The ethnography of communication* (pp. 407–434). New York: Holt, Rinehart, and Winston.
- Butzkamm, W. (1998). Code-switching in a bilingual history lesson: The mother tongue as a conversational lubricant. *International Journal of Bilingual Education and Bilingualism*, 1(2), 81–99.
- Cahyani, H., de Courcy, M., & Barnett, J. (2017). Teachers' code-switching in bilingual classrooms: Exploring pedagogical and sociocultural functions. *International Journal of Bilingual Education and Bilingualism*, 1–15. doi: <http://dx.doi.org/10.1080/13670050.2016.1189509>
- Caparas, P., & Gustilo, L. (2017). Communicative aspects of multilingual code switching in computer-mediated communication. *Indonesian Journal of Applied Linguistics*, 7(2), 349–359.
- Cárdenas-Claros, M., & Isharyanti, N. (2009). Code-switching and code-mixing in Internet chatting: Between 'yes,' 'ya,' and 'si'-a case study. *The JALT CALL Journal*, 5(3), 67–78.
- Cheng, L., Huang, C., & Tang, C. (1997). Negative particle questions: A dialectal perspective. *Journal of Chinese Linguistics*, 10, 65–112.
- Choy, W. (2011). *Functions and reasons for code-switching on facebook by UTAR English-Mandarin Chinese bilingual undergraduates* (Doctoral dissertation, University Tunku Abdul Rahman, Malaysia).
- Crystal, D. (2006). *Language and the Internet* (2nd ed). Cambridge: Cambridge University Press.
- Cru, J. (2015). Language revitalisation from the ground up: Promoting Yucatec Maya on Facebook. *Journal of Multilingual and Multicultural Development*, 36(3), 284–296.
- Dabrowski, M. (2013). Functions of code-switching in Polish and Hindi Facebook users' posts. *Studia Linguistica Universitatis Iagellonicae Cracoviensis*, 130, 63–84.
- Danet, B., & Herring, S. (Eds.). (2007). *The multilingual Internet: Language, culture, and communication online*. Oxford: Oxford University Press on Demand.
- Eastman, C. (1992). Codeswitching as an urban language-contact phenomenon. *Journal of Multilingual & Multicultural Development*, 13(1-2), 1–17.
- Feez, S. (1998). *Text-based syllabus design*. Macquarie, Australia: Macquarie University Press.
- Fung, L., & Carter, R. (2007). New varieties, new creativities: ICQ and English-Cantonese discourse. *Language and Literature*, 16(4), 345–366. doi:10.1177/0963947007079112
- Greggio, S., & Gil, G. (2007). Teacher's and learners' use of code switching in the English as a foreign language classroom: A qualitative study. *Linguagem & Ensino*, 10(2), 371–393.
- Gumperz, J. (1982). *Discourse strategies*. Cambridge: Cambridge University Press.

- Gumperz, J. (2008). Interactional sociolinguistics: A personal perspective. In D. Schiffrin, D. Tannen & H. Hamilton (Eds.), *The handbook of discourse analysis* (pp. 215–228). Massachusetts: Blackwell Publishers.
- Halim, N., & Maros, M. (2014). The functions of code-switching in Facebook interactions. Paper presented at International Conference on Knowledge-Innovation-Excellence: Synergy in Language Research and Practice, Universiti Kebangsaan Malaysia, 118, 126–133.
- Hoffmann, C. (1991). *An introduction to bilingualism*. New York: Longman.
- Honeycutt, C., & Cunliffe, D. (2010). The use of the Welsh language on Facebook: An initial investigation. *Information, Communication & Society*, 13(2), 226–248.
- Hu, Y., Talamadupula, K., & Kambhampati, S. (2013). Dude, srsly?: The surprisingly formal nature of Twitter's language. In Proceedings of the 7th International AAAI Conference on weblogs and social media, pp. (244-253). Cambridge, MA, United States. Retrieved from <https://asu.pure.elsevier.com/en/publications/dude-srsly-the-surprisingly-formal-nature-of-twitthers-language>
- Huang, X. (2007). *Initialness of sentence-final particles in Mandarin Chinese*. Retrieved December 6, 2014, from <http://www.aclweb.org/anthology/Y07-1018>
- Kuang, C. (2002). The implications of lah, ah, and hah as used by some speakers in Malaysia. *Journal of Modern Languages*, 14(1), 133–153.
- Lau, Y., & Ting, S. (2014). Chinese vendors' code switching in service encounters in Sarawak, Malaysia. *Sociolinguistic Studies*, 7(2), 199–223.
- Lee, C. (2017). *Multilingualism Online*. Abingdon, Oxon; New York, NY: Routledge.
- Li, D. (2000). Cantonese-English code-switching research in Hong Kong: A Y2K review. *World Englishes*, 19(3), 305–322.
- Lin, H., & Qiu, L. (2013). Two sites, two voices: Linguistic differences between Facebook status updates and tweets. In P. L. P. Rau (Ed.), *Cross-cultural design: Cultural differences in everyday life* (pp. 432–440). Heidelberg: Springer-Verlag.
- Luna, D., & Peracchio, L. (2005). Advertising to bilingual consumers: The impact of code-switching on persuasion. *Journal of Consumer Research*, 31(4), 760–765.
- Martin, P. (1999). Close encounters of a bilingual kind: Interactional practices in the primary classroom in Brunei. *International Journal of Educational Development*, 19(5), 127–140.
- Myers-Scotton, C. (1997). *Duelling languages: Grammatical structure in codeswitching*. Oxford: Oxford University Press.
- Onyango, O. (2009). An exploration of extra linguistic factors of English–Kiswahili code switching in FM industry in Kenya. *Journal of Language, Technology & Entrepreneurship in Africa*, 1(2), 151–159.
- Pan, Y. (2000). Code-switching and social change in Guangzhou and Hong Kong. *International Journal of the Sociology of Language*, 146(1), 21–42.
- Pérez-Sabater, C. (2012). The linguistics of social networking: A study of writing conventions on facebook. *Linguistik online*, 56(6), 81–93.
- Poplack, S. (1980). Sometimes I'll start a sentence in Spanish y termino en español: Toward a typology of code-switching. *Linguistics*, 18(7-8), 581–618.
- Reini, J. (2008). Functions of teachers' language choice and code-switching in EFL classroom discourse (Unpublished Master's thesis, University of Jyväskylä, Finland). Retrieved from <https://jyx.jyu.fi/bitstream/handle/123456789/40678/URN:NBN:fi:jyu-201301111029.pdf?sequence=1>
- Rensch, C. R., Rensch, C. M., Noeb, J., & Ridu, R. (2006). *The Bidayuh language: yesterday, today and tomorrow*. Kuching, Malaysia: Dayak Bidayuh National Association.
- Riney, T. (1998). Toward more homogeneous bilingualisms: Shift phenomena in Singapore. *Multilingua*, 17(1), 1–23.
- Saville-Troike, M. (1986). *The ethnography of communication: An introduction*. Oxford: Basil Blackwell.
- Setati, M. (1998). Code-switching in a senior primary class of second-language mathematics learners. *Learning of Mathematics*, 18(1), 34–40.
- Shafie, L., & Nayan, S. (2013). Languages, code-switching practice and primary functions of Facebook among university students. *Study in English Language Teaching*, 1(1), 187-199.
- Shangeetha, R., & Pillai, S. (2015). Socio-linguistic heterogeneity in the writings of selected Malaysian Indian authors who write in English. *Perspectives in the Arts & Humanities Asia*, 5(2).
- Sohail, R., & Malik, N. (2014). Co-relational study of the extent of intrinsic/extrinsic motivation to code switching on Facebook. *European Scientific Journal*, 10(29), 231-265.

- Soong, G., & Ting, S. (2014). Conventions of Malaysian grocery store service encounters. *HERMES Journal of Language and Communication in Business*, 27(53), 125–142.
- Tay, L., Chan, M., Yap, N., & Wong, B. (2016). Discourse particles in Malaysian English. *Bijdragen tot de taal-, land-en volkenkunde [Journal of the Humanities and Social Sciences of Southeast Asia]*, 172(4), 479–509.
- Then, D., & Ting, S. (2011). Code-switching in English and science classrooms: More than translation. *International Journal of Multilingualism*, 8(3), 1–25. doi: 10.1080/14790718.2011.577777
- Then, D., & Ting, S. (2010). *Demystifying the notion of teacher code-switching for student comprehension. Journal of English as an International Language*, 5, 182–197.
- Ting, S., Then, D., & Ong, B. (2018). Revealing meaning of discourse particles in Malaysian retail encounters using Natural Semantic Metalanguage framework. *Grazer Linguistische Studien*, 90, 107–134.