# Code-Switching in Online Communication Among Arabic-English Speakers

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**Abstract –** Language is essential for communication. People who are involved in cross cultural communication have to be bilingual in order to interact with people from a different language background (Blackwell. Woolard, K. (2005). Bilingualism opens up various new pathways of thoughts, expressions, and it helps to reduce misunderstanding in interactions (Hidayat, T. 2012). The purpose of this review is to find out how code-switching plays a vital role in language communication especially in the social media such as Facebook, Twitter, SMS and Chat. This study reviewed fifteen journal articles to examine the ways code-switching was used. The review was to discover social phenomena and authentic identities of social actors. The study discovered that code-switching has been used widely to unmask bilinguals' cultural background and group identity during online communication via Facebook. Finally, code-switching can be used to obtain positive feelings to the interlocutor, which here was combined with introducing humour as an in-group marker, quoting, and to some extent topic specificity as well as possible vocabulary limitation in one language or the other, in the online conversation by bilinguals such as to express group solidarity.

**Keywords:** bilingualism, code-switching, computer-mediated communication, Facebook, online interaction, gender differences.

## Introduction

In the 1940s and 1950s, majority of scholars considered code-switching a sub-standard use of language. Since the 1980s, however, ultimate scholars have come to regard it as a normal, natural product of bilingual and multilingual language use. Code-switching appeared in the field of applied linguistics drawing upon a variety of communicational frameworks and approaches. It is a linguistic phenomenon in which an individual alternates between two or more language varieties in the same exchange (Woolard, 2005). Gardner-Chloros (2009) defines code-switching as is a phenomenon observed in bilingual interactions, whenever people who speak the same two languages as well as dialects shift from other language to another in the same conversation. Moreover, bilinguals at various levels of proficiency use code-switching intended for different reasons such as to "fill in linguistic gaps to express an ethnic identity, as well as to achieve a personal discursive aim" (Bullock & Toribio, 2009). These reasons together with solidarity, accommodation to listeners, and a choice of topic motivate bilinguals to switch from one variety to another (Wardhaugh, 2010).

Although past studies show that code-switching happens unsystematically, recent studies by ethnographers as well as linguistic experts reviewed that in natural contexts code-switching happens systematically (Poplack, 2010). Many studies have focused on the linguistic peculiarity of code-switching in bilinguals and multilinguals. Nevertheless, the nature and intention of code-switching is still under studied. Heller (1988) described code-switching as a strategy in conversation to aggravate or mitigate requests, objections, clarification, comments and validations. De Fina (2007) focused on code-switching's ability for aiding the speakers in creating an identity for them in the social and

linguistic contexts. Less has been studied on the incorporation of code switches by bilinguals in their speech when they have little knowledge on the foreign language and they express themselves more explicitly in their own language (Silva-Corvalan, 1983).

The sub-sections follow will present the types of code-switching and the reasons to code-switch.

## Types of Code-switching

Code-switching can be categorized into three types. The fist type of code-switching is ***Tag switching*** in which Poplack (1980) considered as an insertion of a tag in one language into an utterance which is entirely in another language. In addition Romaine (1989) says that "this switch can be inserted anywhere, which do not have too many syntactic limits. The second type is ***Inter-sentential switching***. Under this type of code switching, switching arrives among sentences and at a sentence level or a clause. Different languages used in each sentence or a clause, more fluency in both languages are required. The last type is ***Intra-sentential switching.*** This is a kind of code switching that occurs at a sentence boundary or a clause. It can also occur in the centre of the sentences. Romaine (1991) argues that this type of code-switching poses the most risk for being misunderstood and it is usually used by more proficient bilinguals.

## Reasons for Code- switching

People code-switch between two languages in their writing and speech. Hoffman (1991) classified the reasons for code-switching into seven categories as the following:

a. Talking about a particular topic. Sometimes people offer first choice to talk about an exciting topic in one language rather than in another language. When a speaker expresses his excitement or anger through a language that is not his everyday language, he feels free and more comfortable in using that particular language.

b. Quoting somebody else. Concerning this reason, Hoffman (1991, p.115) recommends that "sometimes people like to say of some well-known facts or quote a prominent expression".

c. Being emphatic about something. During a discussion, if someone wants to be emphatic about something he would use a language that is not his native tongue. Hoffman (1991) describes this as deliberately or accidentally, switching from a second language to a first language.

d. Interjection (Inserting sentence fillers or sentence connectors). Related to cause for interjection, Hoffman (1991) recommended that multilingual people may sometimes create a sentence connector or interjection at the time of language switching and language mixing. This has intentionally or unintentionally happened between bilinguals.

e. Repetition used for clarification. This happens when a bilingual explains his/her speech by using both languages to help the listeners understand better.

f. Intention of clarifying the speech content for interlocutor. Hoffman (1991) suggested that, "when a bilingual person talks to another bilingual code mixing and code switching helps the smooth running of the content of the speech and makes the speech comprehensible to the listener".

g. Expressing group identity. Code-switching and code-mixing are also used to state group identity (Hoffman, 1991).

## Purpose of the Review

The purpose of this review study is to reveal the occurrences of intra-sentential code-switching, languages use, and reasons for code-switching while communicating on Facebook in the related studies.

## Methodology of Review

In conducting the review, first, an electronic database search was executed in ProQuest Scholarly Journal database and Google Scholar. The ProQuest database was selected to search related studies for this review because it is one of the reputable databases, and it provides various information which encompasses multiple authoritative sources. Most importantly, ProQuest was subscribed by the university to provide adequate resources for the students. On other hand, Google Scholar was used because it is freely accessible and it indexes literature across an array of disciplines. In choosing

related studies for the review, the search was confined to a period of ten years from 2005 to 2015. Keywords such as, code-switching and Facebook were used to conduct the search. The search generated 12 related studies from ProQuest  and 22 related studies from Google Scholar. Of these 34 studies, 19 studies were eliminated because they were not related to social media concerns or Facebook. Only studies related to code-switching and Facebook were included and reviewed. The 15 research studies were read thoroughly and the content was analysed based on themes. The first theme identified was concerned with the functions and reasons of code-switching on Facebook posts. The second theme was concerned with language choice in code-switching communication, and the third theme was concerned with the language users on social networking. The last theme was concerned with the gender differences in code-switching through SMS messages. The appendices show a summary of related research studies according to authors, year of publication, research objectives, methodology and findings.

**Review on Code-switching**

Code-switching on three different media are investigated by this review paper that include: The Facebook , Twitter and short messages, all these media were concerned with the cross linguistic code-switching including: Polish and Hindi, Arabic and English, Bangladeshi and English, Chinese and English, Turkish and English, Spanish and English as well Urdu and English. An initial reading of the 15 studies discovered three main themes that framed the research. The three themes are: code-switching in online communication, code-switching and gender and code-switching among Arabic-English bilingual speakers.

*Code-switching in Online Communication*

Many studies have tried investigating code-switching for example in three online media communications such as, Facebook, Twitter and SMS. The following studies conducted research regarding to code-switching in online communication, (Axelsson, Abelin & Schroeder, 2003); Goldbarg (2009); Lee, 2007); Montes-Alcala (2007), Sukyadi, Wirza, & Hasiani (2012; Tastan (2012),

For instance, Why and when bilinguals code-switched in blogs were investigated by Montes-Alcala` (2007). He found that social functions were included in the participants' e-mails, similar to oral communication. The primary data was collected from 15 Spanish-English blogs from 2005 to 2006, and 100 pages were analysed for the work. The researcher excluded blogs that had two separate pages in English and Spanish posts. The participants were homogenous in terms of ages and ethnic groups. They comprised 10 women and 5 men. The researcher (Montes-Alcala`, 2007) divided the social functions of oral code-switching into seven categories: triggers, lexical items, tags, quotes, elaborations emphases and free, i.e. the category in which there was no specific reason to switch codes in social functions. Then, he analyzed the data accordingly. He concluded that bilingual bloggers switched the most for emphatic and lexical reasons. Another purpose of their code-switching was to show "the degree of familiarity that the individual possessed with both Hispanic and Anglo worlds" (Montes-Alcala`, 2007, p. 169).

In another study the linguistic feature of the Martian language (internet slang that is popular among Taiwanese) is investigated by Lee (2007) and he try to explore by using this language on web blogs how the Taiwanese showed their identities.  Based on the use of the Martian language on the web blogs, the researcher give focus on the age, gender and topic on the bloggers. Five blogs with different topics are examined and collected data for the research work. Finance, political affairs, comic, animation, game, students, entertainment, pets and students are included in those topics. The research was done based on the usage of assumption in politics and finance. More formal languages and less Martian languages that were more regularly used in students' blogs and animation. Furthermore, ten articles were selected by the researcher in the research. From the bloggers' pages Lee collected the demographic information of the bloggers, such as gender and age. He divided the age groups by gender into two, i.e.  15-30 and 31-65, to analyse the data through a quantitative method (two-way ANOVA). A qualitative method was also used to analyse 1). How often was the Martian language used in blogs of different topics? 2). What was the most common uniqueness of the Martian

language? 3). What were the Martian language's rules in helping bloggers to create different relationships and identities? The results revealed that age had a significant effect on the use of the Martin language because the younger group of people showed a higher use than the older group. Thereafter, gender had no effect on the use of the Martin language. Finally, the results exposed the Martian language was used in casual topics, such as pets and students. The research concluded that the Martian language was used in communication to help cut down social distance along the blog participants.

In another study, Goldberg (2009) examined the study of Spanish-English communication to analyse bilingual code-switching. His research was done among only local speakers of Spanish who as well spoke English fluently. Goldberg conducted the research with the help of a questionnaire that was all about the participant's daily e-mails. There were six questions which included in each questionnaire. The A series of questions were related to the languages used in e-mails. Some questions were about the languages used in e-mails, and others were about e-mail recipients, and the subjects and functions of their particular language choices. He questioned the participants to verify their e-mail accounts on a daily basis. He also asked the participants about their time selections in relation to e-mails that they wrote. Almost all the participants were aged around late 20s to early 30s, because all of them were graduate students. Three men, along with a couple of women, were selected as participants. A total of 133 e-mails included the concluding corpus. On completing the questionnaire the researcher interviewed each participant to clarify some points associated with the language utilized in thee-mails. This enabled the researcher to get an insight into their thoughts on code- Switching with their spoken communication.

In order to deal with the following questions, Goldbarg (2009) examined 101 e-mails for code choice:
1) What is the dominant language of one's in any email?
2) Did an obviously proficient or possibly just as proficient Spanish/English correspondent understand a code-switched word as well as phrase?
There is a division of one code-switching works into stylistic, technical, as well as emphatic words (Goldbarg (2009). Except for these categories, he formed other categories called perchance phrases or popular words in addition to research.

In the final question he asked, if there was any code-switched words or phrases appeared in the body of an e-mail, for example, if a Spanish word such as a greeting in English matrix sentence, the Spanish word be used like a Spanish greeting. Twenty two of code-switching functions were recognized. According to these categories also, he created a similarity matrix of code-switching functions based on a co-occurrence of these functions in each e-mail. Each cell in the matrix included the number of times that two functions co-occurred. In the matrix every cell consisted of the number of periods when two functions co-occurred. Multidimensional scaling was required to analyse the matrix. To discover the relationship among participants' code-switching and also some other capabilities of e-mail, the researcher developed tree diagrams. The researcher grouped e-mails into categories i.e. Original sender (not participants), language concerning participants' feedback, language collected from the original sender (participants), relationship with recipient, and subject of e-mail. The used language(s), was/were uniformly verified through the following: Spanish-only English-only; together, but Spanish-dominant, together, but English-dominant; along with both on a single connected with each. Adding up, three tree diagrams were formed: 1) value, selection x email subject; 2) code option x language about mail received; along with 3) code solution x association with the recipient. Chi-squared test was used to analyze these tree diagrams.

Most of the participants were students of an American university and because of that the result of the study showed that participants wrote English e-mails more than Spanish emails. One other reason for that was the majority of messages were replies to English e-mails. In participant-initiated e-mails Spanish was more frequently used, some participants gave preference to Spanish, and to supplement Spanish, English was used, and Spanish was used as the unmarked code. Thereafter, for scientific and ordinary vocabulary about code-switching functions, English was often used. Then, in informal communication Spanish was also used. For instance, the participants used Spanish with friends along

with family and English all through with co-workers as well as professors. Therefore, concerning the selection of language, participants' relationships with email recipient were one determining aspect.

In another study, Sukyadi, Wirza, and Hasiani (2012) investigated the effect of gender on code-switching and they also investigated the types and causes for code-switching on Facebook. The study included 24 Facebook users as participants, ten were from English department and the rest were from different departments. The users comprised of 12 males and 12 females who spoke English and Indonesian languages. Data was collected from the participants' Facebook walls, posts, interview and questionnaire to investigate the reasons for code-switching. The results revealed that the participants used three types of code-switching: Intra-sentential switching, tag- switching and inter-sentential switching. Intra-sentential was the most frequently used. Because the participants were students from an English language department and they used Indonesian less than English language. The study about effect of gender differences discovered that intensifiers, tag questions, and endearment words are more used by women than men. Additionally, for apologizing, and to show gratitude and complimenting others words were used more respectfully by women. In outlook of topics, when men talked on music and technology the women wanted to talk about their feelings and relationships. yet effect of age is a serious limitation in this study, because it included participants from a range of age groups.

To examine the language used on Twitter (e.g. Tastan, 2012). He focused on the occurrence of code-switching and the connection among matter and the use of code-switching on Twitter. Twenty young Turkish people were the participants who were aged under the range from 19 to 24. They were divided into five males and 15 females and English language was well known to them, because they were selected from English Department. From the participants' Twitter profiles the researcher collected 3,860 posts. There were117 code- switching with the twitter post and the participants incorporated both intra-sentential and inter-sentential code-switching. Moreover, seven different topics was used to analyze the 117 posts. Internet and computers, education, interests (songs, movies and series), entertainment, sports, travelling, and other. The findings revealed that in online communication code-switching was a familiar feature between young Turkish speakers, mainly on Twitter, likewise, exposed that, from the 117 posts, 30.7 % of the post contained inter sentential code switching, whereas 69.23% had intra sentential code-switching. Besides, in Twitter, switching to Turkish was used less frequently than switching to English. In case of topics, the findings showed that participants less code switched within the topic of Internet and technology (19, 65 % from posts) and mostly code-switched (37, 6 %) within the topic of interests. Also, the results revealed that on twitter English was the dominant language among young Turkish speakers.

In case of Twitter, they study that deliberated by Axelsson, Abelin, and Schroeder (2003), English was also found to be leading in real World. They also examined how diverse national languages interrelate in real World. Furthermore, they also examined other languages, in which the data was collected by analysing text communication among users. The results showed that non-English speakers who usually bilingual (Speaks two languages), were willing to switch to English, even in settings of the mainstream of the users were non-English speakers. .

*Gender and Code-switching*
Code-switching and gender is a psycholinguistic aspect. Some reviews are publicized in this segment, because this issue is concerning with women and men switching to many idioms according to the daily base usage. Beside the code-switching throughout the world the item investigates the consequence of gender and to determine the percentage associated with employing cultural networks universally in relation to code-switching idioms. Gender is a significant sociolinguistic aspect.

The studies of Trudgill (1974), Labov (1972), and Chambers (2003) revealed that in monolingual settings, women used more standard forms than men. In case of a bilingual setting, a study by Gardner-Chloros (1998) and Cheshire investigated transcribed recordings from two migrant communities in the UK. From the results it can be seen that in the use of any type of code-switching, there were 12 insignificant differences among men and women in both communities. In terms of the

quantity and kind of code-switching which occurred, there were important differences between the two communities. Once, further studies found that in terms of the amount and the type of code fluctuation used within a community, the men and women performed in different ways. From these studies, one study was done by Haust (1995) who found, particularly in the use of discourse marker insertions, men switched more standard forms whereas women tended to change varieties outside the turn unit.

*Code-switching among Arabic-English Speakers*
Viewpoints of Arabic speakers on code-switching have been tested by many researchers, who have also tried to examine the general use of the English language in the Arabic language. These reports help to show the incidence of using English words in the Arabic language. This study was conducted by Hussein (1999) was selecting participants from the English and Arabic departments and requesting them to fill up a questionnaire about using English words within Arabic sentences to determine the frequent words used in the sentences .

To look at code-switching among Jordanian Arabic-English speakers, a lot of researchers have been tackled topics among Arabic-English speakers. Hussein (1999) verified the most frequent use of English expressions in the Arabic language and the attitudes of Arabic speakers toward code-switching. College students from different departments were the participants for the study. A total of 86 students were selected from the Department of Arabic, 55 students from the Law Department, 54 students from the English Department, 48 students from the Computer Science Department, and 109 students from the Islamic Religion Department. In terms of gender the selected subjects were similar from daily life issues, and their ages ranged from 19 to 23 years. They study revealed that less positive attitudes toward code-switching were among the students from the departments of Arabic and Islamic Religion. This study used a three-section questionnaire. Questions related to demographic information of participants was included in the first section. The second section included the questions to examine students' attitudes toward code-switching. Questions about when and why students code-switched comprised the third section and this section also tried to elicit frequently used English expressions.

After listening to a short lecture titled "Introduction to Computers and Computer Applications" the questionnaire was shared with students. The author showed the attitudes of students toward code-switching into four parts to examine the attitudes in the collected data toward code-switching in relation to Arabic, which was examined in the first part, while under the second part attitudes toward code-switching in relation to English was examined. The third part focused on attitudes toward users of code-switching; general attitudes toward code-switching were dealt with in: the fourth part. In this study the results revealed that students code-switched to accomplish some language functions which were not connected to inadequacy of language. Additionally, the author added that participants did not have the same opinion of the statement that switching to English helps convey technical and industrial concepts in a better way. The investigator attributed this to the fact that most of his topics were from the Islamic and Arabic departments, where students are expected to have more traditionalist perceptions toward Arabic. Also, the researcher concluded that the lack of equivalent words in Arabic was the main reason for students to code-switch particular for some technological concepts i.e. *telephone, television, etc. ok, thanks, yes/no, sorry* and *please* were the most frequently used expressions.

Another study which conducted by El-Saadany (2003), has provided supporting results to Hussein's (1999) study. Therefore, code-switching among different Arab speakers was examined by El-Saadany (2003). The researcher verified which codes Arab speakers of diverse varieties and dialects utilized in casual discussion. Moreover, the social factors that led Arab speakers to code-switch were addressed in this study. Different Arab speakers, living in America from Sudan, Morocco Jordan, Saudi Arabia, and Egypt were selected as the subjects of the study. Telephone conversations collected from the participants comprised the data for the study. Nine males and eight females were the participants. The researcher prepared a phonetic transcription of the conversations after collecting the data and then recognized all instances of code-switching. The study showed that, apart from Egyptians, Arabic

speakers of 14 different varieties, when they talked to Egyptians, switched to Egyptian Arabic, at the lexical and phonological indicator. At the same time, emphasis and clarification Arabic speakers switched to English.

Code-switching among a group was examined in a study by Said, Waschauer and Zohry (2007); the Egyptian Internet users were Arabic-English bilinguals. The study was conducted to determine which language was most dominantly used by the participants in online communication and why. A total of 43 young Egyptian professionals working in the Information Technology fields were the subjects for the study and this included 23 male and 20 female. The researchers from Cairo carefully selected the participants whose ages ranged from 24 to 36 years. All of them were academically qualified and had at least a bachelor's degree.

For this study, the researchers used a written survey including three sections i.e., first section had six questions regarding personal information, second section comprised eight questions regarding language use in online communication and the final section had eight questions concerning print literacy practice. For the survey, a Pilot Test was conducted. The survey was conducted through e-mail with 43 people. They were asked to present the samples of their online chats or e-mail messages to researchers. Four participants were selected for interviews because only they returned the survey with samples of e-mail messages. All the interviews were tape recorded by the researchers.

Depending on the dialect, language, and script the survey data of 43 people were analyzed. To examine which factors correlated with online use by Egyptians, the researchers used ANOVA test. The written transcripts of interviews were analyzed by the researchers for better results. The study showed that Romanized Egyptian Arabic was frequently used and English was the dominant language. Finally, the investigators concluded that, the use of English was associated with participants' experience in using the Internet and working in information technology centres

In another study Al-Khatib and Sabbah (2008) focused on the printed forms of code-switching in text messages used by Jordanian university students. The incidence and functions of code-switching were the main focus of this study. From 46 university students the corpus was collected as a tool of start. There were 17 males and 39 females selected as the participants and whose ages ranged from 17 to 26 years. A total of 181 messages were randomly selected as data for the work. The data collection used self-reporting questionnaire and interview method. Quantitative and qualitative methods were used here for analyzing the data. From the findings it was seen that in text messages code-switching occurred more often than using only English or only Arabic. For Arabic words participants used the Romanized script more than Arabic.

Investigators explained that rather than using languages rather than only English or only Arabic facilitated communication. In the case of gender, the results revealed that males used code- switching less than females whereas males favoured the use of only Arabic comparatively more than only English or mixed elements compared to females. In addition, the results revealed that for cultural and religious reasons participants switched to Arabic inside English matrix sentences. For instance, in Islamic greetings like *inshalla* ('God willing'); *Allah yes3idek/yes3idak*('May God bless you') *yarab*('God willing'); *enshallatkoun/ tkouni b5air* ('God willing, you are ok');*5alas*('ok then)*; ma bitqaser/ma bitqasri* ('you are always there to provide help') (p.50): they used various religious terms inside English sentences. Due to the three reasons i.e. for academic or technical terms, prestige and for euphemisms, the participants switched from Arabic to English.

**Conclusion**
The mentioned studies have been reported that English seems to be the mainly prevailing language used by various bilingual speakers in their online communication. During the studies, Axelsson, Sukyadi, Wirza, and Hasiani (2012), Abelin, and Schroeder (2003), and Tastan (2012), discovered that switch was further common to English than for the participant's native language. As shown in Goldbarg (2009), and Hasiani (2012), Sukyadi, Wirza, and Tastan (2012), in computer mediated communication- CMC Intra sentential code-switching was used more than other types and this was

experiential mostly in informal communications rather than formal communications. While concerning the effect of gender, the rest of the findings show those males code-switched less often than females. Research is a little bit in case of the matter of the conversation; in which code-switching occurred: and only one study investigated the use of code-switching. Tastan states that code-switching occurred frequently inside topics connected to movies and songs. Frequently switched words, were English words like, *thanks, please*, *okay, yes*, *sorry*, etc.

In conclusion, with the propagation of technically mediated communication, there is an increase in the number of studies regarding the use of code-switching on variety of social networks and with speakers from diverse situation. However, it seems that under empirical research method, the use of code-switching on Facebook is not enough examined by bilingual Arabic speakers. This understanding serves as the justification for the present review study which aims to inspect the service of code-switching between Arabic and English bilingual users of Facebook.

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