The Social Aspects of Code-Switching in Online Interaction: The Case of Saudi Bilinguals

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Abstract

This research aims to investigate the concept of code-switching (CS) between English and Arabic and the CS practices of Saudi online users via a Translanguaging (TL) lens for more inclusive view towards the nature of the data from the study. It employs Digitally Mediated Communication (DMC), specifically the WhatsApp and Twitter platforms to understand how the users employ online resources to communicate with others on a daily basis. This project looks beyond language and considers the multimodal affordances (visual and audio means) that interlocutors utilise in their online communicative practices to shape their online social existence.

This exploratory study is based on a data-driven interpretivist epistemology as it aims to understand how meaning (reality) is created by individuals within different contexts. This project used a mixed-method approach, combining a qualitative and a quantitative approach. In the former, data were collected from online chats and interview responses, while in the latter a questionnaire was employed to understand the frequency and relations between the participants' linguistic, non-linguistic practices and their social behaviours. The participants were eight bilingual Saudi nationals (three men and five women, aged between 20 and 50 years old) who interacted with others online.

The study data were gathered from 194 WhatsApp chats and 122 Tweets which were analysed and interpreted according to three levels: conversational turn-taking and CS; the linguistic description of the data; and CS and persona. This project contributes to the emerging field of analysing online Arabic data systematically, the field of multimodality and bilingual sociolinguistics. In addition, it bridges some of the existing gaps in the DMC literature. The findings of this study are that CS by its nature, and most of the findings, if not all, support Wei's (2018) notion of TL that multiliteracy is one's ability to decode multimodal communication, and that this multimodality contributes to the meaning.

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Declaration

I declare that this thesis is a presentation of original work and I am the sole author. This work has not previously been presented for an award at this, or any other, University. All sources are acknowledged as References.

Publications and Conferences

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Chapter 1: Introduction

1.1 Introduction

It is generally agreed, at least from a linguistic point of view, that Code-Switching (CS) occurs when a speaker changes or alternates, in the course of a single conversation, between two or more languages or language varieties. This is a noticeable practice all over the world in various contexts, cultures and language contact situations. However, it has been noticed that the dawn of the internet has led to it becoming a part of everyday life, significantly changing the way in which people communicate with each other. Digitally-mediated communication (DMC) platforms offer opportunities for what is now regarded as written scale on an "unprecedented scale" (Androutsopoulos, 2013: 667). Research on CS on DMC studies have isolated patterns in a wide spectrum of platforms, linguistic contexts and social settings. Nonetheless, investigating the occurrence of CS on electronic platforms is a largely under-researched area, especially in relation to other fields.

However, these linguistic practices are more than just alternating between languages or varieties, thus, researchers have switched the focus for a more recent and more inclusive theory which is called Translanguaging (henceforth TL) proposed by (Wei, 2011). In this regard, the digital code can be considered as a performance of online multilingualism. Androutsopoulos (2013: 4) described these practices as "everything language users do with the entire range of linguistic resources" for the purpose of online communication which is supported by TL.

It is important to distinguish between CS and TL in both their contexts and how they have been applied in this study. According to Garcia and Wei (as cited in Molina & Samuleson, 2016), TL is different from CS. In this context, CS is defined as a process of changing two

languages in a specific communicative episode, while TL is seen as a phenomenon about "the speakers' construction that creates the complete language repertoire" (ibid, 2016: 3). More specifically, in TL, bilinguals are consciously aware and in control of their utterances in both languages. This so because TL is largely about meaning and sense-making (Wei, 2018). With regard to CS, the main feature is the purpose or motivation of the conversation. Ordinarily, CS is considered as a linguistically incompetent ability. All the same, the process is governed by grammatical, as well as interactional, rules. Both notions will be thoroughly discussed in the next chapters to highlight the positive aspects and limitations of each for the purpose of positioning the current study.

Due to the fact that there is no generally agreed definition of CS or a clear-cut distinction between CS and other language contact phenomena (discussed in the next chapter), it is important to define CS in a specific and limiting sense as it is employed in this study. Consequently, for avoidance and removal of doubt, and as a way of avoiding terminological or conceptual controversy, this study uses the traditional view of CS, which is switching between two languages during a conversation. As a result, for the purposes of this study, and in the general sense, Romaine's (1992: 110) broad attempt at defining CS as "the use of more than one language, variety, or style by a speaker within an utterance or discourse, or between different interlocutors or situations" will be used. Particularly, for this research the concept of CS is used and understood in the sense of "the alternative use of two languages either within a sentence or between sentences" (Clyne, 1987: 40). That notwithstanding, code/language-switching will also be used as an umbrella term to cover the switching practice or alternating between two languages (Arabic and English) within the same conversation. It is also worth noting that the term "code alternation" may be used at times, but this should not be confused with the technical definition of the term.

It is argued by many sociolinguists and social theorists that speakers manipulate linguistic codes in order to establish their identities and for self-presentation (Auer, 2005; Bourdieu, 1977, 1980, 2000; Giddens, 1984, 1991). These studies assume that identity is multiple, varied and continuously being reconstructed through one's everyday experiences (Bucholtz & Hall, 2005). Since the early research on identity that took place in the 1950s, numerous technological advancements and environmental aspects have reformed how we think about personality and, moreover, how we present ourselves to others (Marakas et al., 1998; United Nations, 2021; American University, 2021). In this sense, Barasa (2016) states that computer-mediated environments can redefine and recreate the traditional concept of identity, because those settings are rich in new characteristics that on the one hand can help users to express themselves innovatively, and on the other hand can reconstruct their identities either completely or partially (Berthon et al., 2010).

Consequently, this project is concerned with language, culture, social aspects of the interrelation between the internet language and its users' online existence and how individuals use language to co-construct their everyday worlds and, in particular, their own social roles and identities in DMC.

The use of CS and TL for communication can be explored in depth through participant interactions. For this research, bilingual Saudis are investigated and their online conversations analysed in order to understand how they use both notions for communication. The social roles and interactive personas of bilinguals are afforded a special focus because they unveil previously overlooked/understudied dimensions of CS and TL with regard to DMC in Saudi Arabia.

1.2 Sociolinguistics and Digitally-mediated Communication

The relatively recent era of technology has ushered in novel "online" DMC channels which are usually text-based. Since then, researchers have suggested several terminologies to classify DMC language: "Netspeak" (Crystal, 2004: 17) due to the integrated use of emoticons and abbreviations; "Technologically Mediated Discourse" (TMD) (Herring, 2008: 1) for more general use, including all digital devices and "written speech" due to its non-typical nature (Herring, 2008: 2). DMC is utilised in the current study to refer to the two digital communication platforms used for the current project (WhatsApp and Twitter). Furthermore, despite being text-based, written online CS and TL are treated in this study like spoken communication because of the turn-by-turn nature (as will be discussed later in section 2.7).

Since the internet was developed in the 1960s and later (end of the 1990s) became available to many people, it has become an increasingly important and influential part of peoples' daily lives and consequently affected language use i.e., abbreviations, borrowing, mixing between letters and numerals (Urbäck, 2007). In the same way that bilingualism and multilingualism are natural practices in offline language, when communicating online, languages come across and form a 'multilingual internet' (Danet & Herring, 2003). The focus of research over recent decades has been mainly on English DMC, yet this has to include other languages as well since the "internet is no longer the monolingual, English-dominated space it was at its inception" (Gass, 2008: 429).

Therefore, some scholars have recently begun to observe bilingual speakers through their conversations, which involves both CS between their mother language and their second language. Researchers have begun to focus more attention on why users code-switch and the linguistic features of CS in DMC (Warschauer et al., 2002; Durham, 2003; Barasa, 2016).

1.3 Speech Communities and CS on DMC in Saudi Arabia

1.3.1 Speech Communities on DMC

Decades ago, and more specifically, in the 70s, Labov introduced the concept of "community" in his sociolinguistic analysis of the interrelation between society and language. The aim of this concept is placing persons into groups who have similar linguistic repertoire. Later, "speech community" was recognised for the groups who share the same geographical history and language (Labov, 1972). Recently, the notion of "speech community" has gradually developed to represent a sociolinguistic concept for a general inclusion of modern means of communication, including the DMC which enables its users to construct "virtual networks" (Tagg, 2015: 230). Therefore, this study has been conducted to investigate as aforementioned the linguistic repertoires of the users thus, code in this sense has to be more inclusive to include all communicative resources either linguistic or non-linguistic resources which DMC provides. The focus is on these linguistic practices– a small scale of Saudi Arabic speech community (speech community in this study refers to the Saudi bilingual online users)– in relation to modern technology and 'virtual networks', specifically the WhatsApp and Twitter platforms, in order to explore how language and its users (bilingual Saudis in this study) are affecting and affected by each other.

Profile of Saudi Arabia

Saudi Arabia, formally known as the Kingdom of Saudi Arabia (KSA), is the largest–land area– Arab country in Western Asia, located in the Arabian Peninsula. Its economy is petroleum-based since the discovery of oil in the 1930s. Since then, Saudi Arabia has grown rapidly in several educational and socioeconomic aspects. Consequently, the educational system has developed and English language has been officially incorporated into learning in public schools at an early age. Al-Braik (2007) stated that English language became essential in the KSA educational system due to its foreseen economic status. According to Global Media Insight (2021), the population of KSA is approximately 35 million, but there is no data on the specific or even approximate number of Saudi bilinguals. In line with the rapid

development of the KSA, it is worth mentioning the growth of the economy, which has increased most households' income and hence improved the affordability of daily requirements and appliances such as electronic devices.

Saudi Arabia (the context of this study) is a unique sociocultural context that is more conservative and religious than other Arab countries (Elaine & Mannie, 2005; AlOmari, 2008). Another point to note is that the social family's structure obliges its members to act in certain ways. To illustrate, Saudi Arabian society has a tribal and familial structure that forms specific morals and social appropriateness. Al-Sabaie (1989: 250) described this as follows: the "Saudi family structure and religious traditions emphasise strong family ties and supportive attitudes" which influences its members' sociocultural behaviours. It is worth noting that in Saudi Arabia, some topics are considered taboo and too sensitive to be mentioned in public, due to the conservative nature of the Saudi society. These include adult content, online gambling, dating, etc. Thus, some online sites are blocked as they conflict with the country's religious, cultural, legal and traditional norms. All internet communications are directed through a central server that filters both incoming and outgoing traffic (Sait et al., 2007).

Recently, Saudi society has been undergoing fast changes, with youth being a strong cultural and economic power. Aldakhil (2017: 1) reported that "65 percent of the population is under the age of 29" and, thus, they have a strong impact on the country. Lately, Saudi Arabia has witnessed qualitative social and cultural reformations such as the emergence of theatres, cinemas, concerts, women driving, and the launch of tourism. These are largely due to Vision 2030, which is a programme that promotes sociocultural, economic, tourist and educational improvements. Crown Prince Mohammad bin Salman (2016) announced that "Our vision is a tolerant country with Islam as its constitution and moderation as its method".

For the many developments that have occurred in Saudi Arabia and for Saudis, the role of social media has accordingly become significant. To illustrate, the Arab Social Media Report

Twitter in the Arab Region in 2014, KSA documented the most active Twitter users whose posts represent 40% of all tweets in the region. It is important to clarify that Twitter, which was launched in 2006, had no support for Arabic until March 2012, only by then, the official Twitter blog announced that Twitter was available in Arabic, Hebrew, Farsi, and Urdu (Twitter, 2012). Since then, Arabic has recorded the fastest growing language on Twitter (Isani, 2020).

Since the current study is about Saudis' online engagement in various contexts, it is important to mention that in 2012, 45.9 million internet users searched in Arabic, and that in Saudi Arabia alone, mobile searches are growing by 200%. Furthermore, 60% of Saudi Facebook users utilise social networks in Arabic. A more recent statistic by GMI (2018) showed that the number of internet users in Saudi Arabia rose promptly to reach 30 million people by 2018 and 33.5 million by 2021 (Global Media Insight, 2021). The internet penetration in the country has now reached 91% and social networking is a very widespread channel of communication in the virtual space. WhatsApp leads the list of online platforms with 80.50% usage, followed by Twitter with 71.40% (Global Media Insight, 2021). These two platforms were chosen specifically due to their popularity as the number of users show. One of the other public social media options to be considered was Facebook. Although its users reach 73.9% in Saudi Arabia, but it was rejected for some reasons; first, the researcher is not active on Facebook thus, could not create connections with other participants. Second, Facebook is more about social relations with those a participant already knows which makes it less publicly than Twitter. The other options were Instagram and Snapchat which were excluded because they mainly rely on pictures not texts. In addition, Snapchat stories last for only 24 hours which makes it impossible to collect data from.

All the social media applications mentioned previously are mobile-based social networking platforms that provide a wide collection of properties and functionalities which are usually being employed by people for communication purposes either personally through

instant messaging or through groups. Over these chat windows, users can exchange messages in the form of text, pictures, links, audios and videos. These platforms have become very popular among Saudis for personal conversations. Consequently, there is a need to study how bilingual Saudis employ different linguistic repertoires in DMC, especially in the face of the growing effects of globalisation and the increasing use of English. This would facilitate the development of new knowledge on the matter, especially given that Saudi Arabia is a largely conservative country which follows many rooted and complicated traditions such as some tribal habits and cultural taboos that cannot be practiced publicly such as dating.

The above statistics led us to wonder, why are Saudis strongly engaged online? Is it because their conservative lifestyles, which prioritise many traditions and proper norms, decrease their social engagements in their offline life? Or is it because online platforms serve as a free space where they can practise some restricted activities anonymously? Why would they indulge in CS and to what extent do they use it? This study may reveal some answers to these questions and increase our understanding of Saudis' behaviour online.

1.3.2 CS in Saudi Arabia

The term "code-switching" was initially proposed by Hans Vogt in 1954. He stated that CS is a common and normal phenomenon which occurs when users experience language contact. Hence, several definitions of CS have emerged (Fatemi & Barani, 2014). Moreover, differences in the foci of research on CS is the cause in having such variations and definitions of the concept. It is true that many studies have been conducted in the field of CS, yet it still lacks to a common consensus on its meaning. Gumperz defined it as "the juxtaposition within the same speech exchange of passages of speech belonging to two different grammatical systems or subsystems" (1982: 59).

Historically, Al-Braik (2007) argued that English had been ignored for centuries in Saudi Arabia until the early 1970s, because the educational system in Saudi Arabia centred

attention on Islamic teachings, neglecting the teaching of English or any other foreign language. The period after the discovery of oil in Saudi Arabia caused the growth of several international companies such as ARAMCO (the world's second largest oil company), which not only influenced the economy in Saudi Arabia but also its linguistic system, referred to by Karmani (2005) as "petro-linguistics". Since then, CS has emerged between the two languages and it has gradually become more common in Saudi Arabia. AlRawi (2012: 33) stated that "upper-class and educated middle-class families are proud of raising bilingual children", although its critics consider this tendency to be a threat towards the Arabic and Islamic identity (Onsman, 2012).

During that period, the Saudi society, especially in the Eastern province of Saudi Arabia where oil was discovered, became familiarised with specific words due to the presence of Americans, such as "tyres' and 'AC/air conditioning". Although the Arabic substitutes emerged later, Saudis in these regions still use the English words either the nonce borrowed words or the Arabized ones.

It is noteworthy to stress that whenever a language contact occurs, sociolinguistic CS becomes common. Studies have shown that the use of English globally is causing rapid changes through demographic trends, new technology and international contact (Crystal, 2003; James, 2010; Northrup, 2013; Wardhaugh & Fuller, 2015). One of these changes is the growing CS between English and Arabic (Abdel-Rahman, 2007; Al-Rawi, 2012; Albirini, 2016).

At this point it is worth mentioning that Classical Arabic has experienced several significant morphological, syntactic, and semantic changes as it has developed into two forms. The first of these is now often referred to as Modern Standard Arabic (MSA) and the other form is Colloquial Spoken Arabic (CSA). MSA is the form formally used in textbooks, speeches and newspapers. From a linguistic perspective, MSA therefore represents modifications such as the usage of a simpler numerical system, and more recently it has

absorbed new words or borrowed words from other languages (Abdel-Rahman, 2007). Lancioni and Bettini (2011) argued that lexical borrowing occurs because it is not always possible to find Arabic equivalents for many English words. Hence, numerous English loanwords have been implemented in Arabic such as *tilifu:n* (telephone) and *bank* (bank). Eventually, linguists and reformers proposed Arabicising these English loanwords due to the lack of Arabic equivalents. Thus, there is a need to accept, adopt and use these terms formally in Arabic. Hence, these reasons may explain why the Saudi Arabic MSA particularly in the press and media is distinctive from the MSA in other Arabic-speaking countries such as Egypt and Morocco (Mol, 2003).

While CSA also known as Colloquial Saudi Arabic is considered as an intermingling variety that combines most common Saudi regional dialects, yet there are still different varieties due to the large land area of KSA consisting of 13 distinctive regions. CSA is dominant in Saudi Arabia and some linguists believe that it affects MSA, which is not appropriate in daily and informal interaction (Pelfryman & Khalil, 2003). Moreover, CSA is the Saudi Arabic that is widely used in spoken and written communication, especially on social media sites such as WhatsApp and Twitter. The expansion of the use of these platforms by Saudis has enabled CSA to be used also in formal communication (Otaibi, 2016). However, most Saudis consider it as a low variety of the language limited to restricted academic and formal usages and they believe that it will never substitute MSA, no matter how widely spread it is (Bassiouney, 2006; Weninger & Watson, 2011). This perception is supported by Suleiman (2004: 76), who indicated that Arabic spoken dialects "constitute a state of decay in the linguistic fabric of the Arabic language". Similarly, Owens (2006:9) stated that "modern dialects have no official legitimization in the Arab world".

From a linguistic perspective, Khedher et al. (2015) conducted a study that aimed to determine how the topic affects Arabic language in DMC such as Facebook, Twitter, news

sites, and blogging sites and in mobile phone messaging. A comprehensive study was carried out in Jordan using 8,538 text samples from five different forums including WhatsApp and Twitter. The sample topics consisted of various categories: political, social, economic, academic, religious, scientific, sports, arts, and others. The effect of topic was investigated on several linguistic forms including language (Arabic, English or mixed, or Arabizi– writing Arabic words using English letters and numerals); standard, colloquial, or mixed; the integration of symbols; the style (normal, metaphor, cynical, vulgar, or other); and the text cohesion level. The results showed that there was large diversity in these linguistic aspects among the topic categories.

It is noted that a standard and refined language is mostly used in serious topics such as religion and politics. While colloquial Arabic and Arabizi alphabet is common in casual topics such as academic and social topics. One drawback of Khedher et al.'s study is that it fails to consider the participants' ethnographic data, which may neglect the key factors in linguistic forms such as the age or register of the participants that may affect the language. A further weakness of this study is its single variable, which is the effect of topic on language with no reference to the causes because the sample was randomly collected. For example, no consideration was given to the language proficiency of the participants which may influence the degree of indulgence of the second language.

It is undeniable that social media sites make it easy for Saudi users to communicate with others at any time (Shalloum et al., 2017). However, most studies on CS over the past two decades have focused on its spoken context, while few studies have considered its written production. This is covered in the following chapter. However, the extensive use of social media as a means of communication has made data on this new type of CS available in large amounts. Since research on written CS is rather scarce, this study is conducted to examine the practice in asynchronous DMC chats.

DMC includes an array of communicating channels that allow its users to interact with others such as video conferencing and chat rooms (Romiszowski & Mason, 2004). Research in the area of DMC usually categorize two types of communication, synchronous and asynchronous. Synchronous communication is a simultaneous online chatting medium that needs immediate reactions such as chat rooms and via Instant Messaging (IM), while asynchronous communication allows users to access the text later (Beißwenger & Storrer, 2008) such as emails or discussion groups. The latter does not require users to be online at the same time, further, reactions and responses can be at a later time. Some types of DMC are completely synchronous, while some are only asynchronous. Some of these DMC channels such as WhatsApp allows both. This study only focuses on the asynchronous form of interaction between Saudi bilinguals.

The study seeks to determine the factors that motivate Saudi bilinguals to switch between codes in written DMC, despite the fact that they can edit their posts before posting it publicly. It is envisaged that the findings highlight the fact that CS occurs orally offline and also in written interaction. This also assists the multilingual societies to perceive and ultimately accept CS as a valid communicative strategy, as opposed to a corruption of pure language. The importance of the study is the sense that it seeks to present the linguistic features of CS by Saudi bilinguals and to determine the relationship between these features and the contexts in which they appear.

To that end, there is a need to consider the reality of CS on social media. More importantly, we need to take cognisance of the fact that Saudis use CS in DMC.

1.4. Study Objectives and Significance

1.4.1 The Significance of this Study

This study aims to achieve three objectives:

a) to provide a unique insight into the interactive sociolinguistic world of bilingual Saudis' DMC habits and motivations.
b) to build on existing knowledge by analysing the linguistic features (multimodal online affordances) and social behaviours of the participants.
c) to present Arabic data in a systematic way and to explore what Arabic may add to or challenge the current frameworks/knowledge of CS on online platforms.

For the purpose of answering the following research questions:

- What CS practices emerge in online communication by Saudi bilinguals? For what reasons?
- How do the participants employ online interaction to fulfill their social purposes?

Thus, the significance of this research lies in how it will bridge the gap of the hidden aspects such as the motivations and sociocultural insights of bilingual Saudis and their online sociolinguistic presentation as a contribution to the online social interaction in the sociolinguistic realm.

Sociolinguists such as Auer (2005) consider CS as an index of multi-social membership that goes beyond monolinguals' membership. These perspectives can be negotiated in this study for a further understanding of how bilingual Saudis affect and are affected by their online CS.

This study can potentially add value to the existing body of knowledge on CS and TL by focusing on specific online written chat channels, analysing conversations between bilingual Saudis speaking Arabic as their native or first language and English as their second language. This has not been explored thoroughly in the past literature. WhatsApp has been chosen because it represents a private chatting channel, whereas Twitter is a public posting platform. Also, these platforms are chosen due to the high frequency of their use in the selected context (Saudi Arabia); WhatsApp leads the list of online platforms with 80.50% usage, followed by Twitter with 71.40% (Global Media Insight, 2021).

1.4.2 The gap

There is a need to study interactions on WhatsApp and Twitter from a communicative action perspective. For example, this study is an attempt to understand how people are "trying to be in public without always being public" (Marwick & Boyd, 2014: 2). Moreover, it aims to highlight the interrelation between linguistic choices and identity performance in social media. Identities, as Goffman (1990[1959]) puts it, are like masks that can be worn and taken off in different contexts. Thus, as DMCs are largely text based and support limited physical contextual cues, they represent an opportunity for people to perform different features of identities.

Furthermore, individuals on social media employ language in their everyday discourses and since they are members of their individual societies or speech communities, studying the language use of participants on social media is a task for sociolinguists. Especially with the rapid changes in DMC, there is a need to document the up- to-date practices that occur in the online Saudi bilingual community and the communicative acts associated with these changes. As Crystal (2006) notes, researchers in the field of computer/electronically mediated discourse analysis must be well-acquainted with the changes that occur on social media in order to be current and relevant. On the one hand, there is a need to investigate the ways that individuals communicate according to the opinions of others. On the other hand, to explore the decisions they make in linguistic and non-linguistic choices for self-presentation indexing ideologies and achieving different goals.

Previous research undertaken on CS, including that studying online media for analysis, has mainly investigated the types of switching and the purposes of the switching. Most findings that are based on the model by Myers-Scotton (1993, 1998) suggest that there are four possible functions or, to use Myers-Scotton's term, 'social motivations' for switching. The motivations are outlined below:

(1) CS as an unmarked choice due to changes in situational factors. That is, the situation may determine whether participants engage in CS or not.

(2) CS as an unmarked choice due to a speaker's desire to show indexed identities associated with both languages.

(3) CS as a marked choice to renegotiate social distance between speakers. That is to say, CS is used to change the dynamics in terms of social relationships or distance between interlocutors.

(4) CS as an exploratory choice when the speaker is unsure of the best language choice.

This implies that CS is mostly employed by an interlocutor when there is uncertainty over which language would best deliver the intended thoughts or words. For example, a bilingual interlocutor may use Arabic and English when conversing with someone they are trying to understand or relate with, in the hope that the other party will understand one of the languages well.

In addition, these studies mostly focused on the academic contexts such as students' views. However, these students would have limited reasons for using CS. Thus, the current study may explore, among others, purposes such as informal use, religion and music, because the participants are not chosen from academic settings and the relationship between interlocutors is therefore informal. Moreover, in daily lives, it is possible that two bilinguals code-switch with no need for that. Therefore, this research will examine both online platforms' chats between bilingual friends to explore possible patterns, motivations and sociocultural purposes.

A preliminary literature review indicates that the focus so far in terms of analysing CS has been on a linguistic view, disregarding the overlapping social aspects involved in the CS process (e.g., Bentahila, 1983; Bentahila & Davies, 1983; Belazi, 1991; Safi, 1992; Al-

Mansour, 1998; Al-Enazi, 2002). The few sociolinguistic research studies conducted on the Saudi society have mainly focused on studying the CS between MSA and CSA (e.g., Eid, 1982, 1988; Boussofara-Omar, 1999; Saeed, 1997; Bassiouney, 2006; Albirini, 2010, 2011; AlAslaa, 2018); online CS between English and Saudi Arabic from only a linguistic view (e.g., Alothman, 2012; Alfaifi, 2013); only academic CS from a sociolinguistic view (e.g., Lee in Seargeant & Tagg, 2014); or sociolinguistic motivations in an academic setting (Alhourani, 2018). These studies mostly looked at types of language constructions/lexis that tend to be CS but without considering sociolinguistic aspects.

Since the evolution of technology in the 1980s, linguists have focused their attention on categorising DMC. Their foci are the two essential modalities that characterise DMC, which are speech and writing. There has been a debate over the fundamental nature of DMC. Researchers have asked whether it should be categorised as "written speech" as per Maynor (1994), referring to its orality, informality and rapid message exchange; or as a writing repertoire because it is a typed, written form displayed on a screen. There is also a debate over whether it is a third medium, combining the features of both speech and writing, or whether it is a unique linguistic type (Ferrara et al., 1991; Murray, 1990). However, researchers like Crystal (2001) have argued that such categorisations are overgeneralised because DMC is not a single and homogenous genre, but rather a global mixture of online language, combining abbreviations, emoticons and informal spellings.

Most CS studies in the past few decades have analysed CS on an oral basis and insufficient consideration has been given to online written CS, including among Saudis who switch between Arabic and English. Most sociolinguistic researchers have studied CS between Arabic and English in Arab countries like Egypt (Kosoff, 2014) or between English and general Arabic, such as Eldin (2014). However, the Saudi Arabic variety – which is a different Arabic

colloquial form – has not had enough attention from researchers. This has left hidden linguistic aspects of CS that may be at least partially uncovered by this study.

Consequently, the studies conducted on any Arabic variety should not be taken as generalisations that can be applied to all other Arabic varieties, since each one has distinct characteristics and a social identity. Hence, the core purpose of this study can be considered unique because it visualises an undiscovered angle of a neglected sociolinguistic active and growing practice.

1.5 Outline of Thesis

This research aims to investigate the concept of CS and TL between the English and Arabic practices of Saudi online users. It employs DMC, specifically the WhatsApp and Twitter platforms, in order to understand how the users, employ online resources to communicate with others. This project looks beyond language and considers the multimodal affordances (visual and audio means) that interlocutors utilise in their online communicative practices to shape their online social existence.

Literature has mostly looked at types and purposes of language constructions/lexis that tend to be CS but without considering sociolinguistic aspects but never on the interconnection between the linguistic and social aspects in the online interaction which justifies why there is no one data analysis model to include this type of data as will be discussed in the next chapter. Also, most previous studies focused on oral CS or CS in academic contexts which forms the main gap this study is implemented to explore.

Furthermore, since the participants of this study are members of a specific society who share some sociocultural backgrounds and they are additionally members of an online speech community (bilinguals and users of WhatsApp and Twitter), studying their language use on social media becomes a sociolinguistic task especially with the rapid changes of the DMC.

Thus, there is a need to document the up-to-date practices that occur in the online Saudi bilingual community and the communicative acts associated with these changes.

Based on the above-mentioned gaps and needs, this study aims to; first, provide a unique insight into the interactive sociolinguistic world of bilingual Saudis' DMC habits and motivations. Second, to build on existing knowledge by analysing the linguistic features (multimodal online affordances) and social behaviours of the participants. Third, to present Arabic data in a systematic way and explore what Arabic may add to or how it may challenge the current frameworks/knowledge of CS in online platforms. Therefore, this study fits in the connection between the linguistic repertoires and the social implications especially in a so-called conservative context like Saudi Arabia which has several cultural and religious considerations such as gender segregation.

Chapter Two discusses the literature by examining what other scholars have written in relation to the topic. The chapter also identifies the gaps in research. Chapter Three focuses on the methodology adopted for the study. It describes the research philosophical approach; the research strategy; the research context and data collection methods; the sample for the study; the ethics; and the data analysis technique. Chapter Four presents and summarises the analysis of the collected data. Chapter Five discusses the findings in relation to the literature, highlighting their similarities and differences with prior literature. The chapter also highlights the contributions of the study. Chapter Six provides a summary of the study. It offers implications of the study for research on DMC with regard to bilinguals, particularly in the Saudi context, and areas for further study. It finally discusses the study's generalisability and limitations, and presents the researcher's personal reflections and the concluding remarks.

The Social Aspects of Code-Switching in Online Interactions: The Case of Saudi Bilinguals

Chapter 2: Literature Review

2.1 Introduction

This study was undertaken to investigate how bilingual Saudis employ online interaction, specifically on WhatsApp and Twitter, to communicate and fulfil social purposes. This chapter focuses on the literature related to CS and TL. It aims to provide a unique insight into the interactive sociolinguistic world of bilingual Saudis' DMC habits and to build on existing knowledge by analysing the linguistic features (multimodal online affordances) and social behaviours of the participants. This chapter therefore also offers a brief overview of the historical aspects of CS, i.e., its definitions, types, patterns, motivations, functions, and scholars' views towards CS, in order to better understand this project's objectives. Furthermore, it sheds light on TL history and discusses both positive aspects and limitations of CS and TL in order to position them within the current the study. In addition, online interaction will be discussed in the light of offline communication to reflect the affordances of online interaction, which guides the current project. In line with this, these affordances are stressed in relation to other sociolinguistic aspects such as online personas and self-presentation.

2.2 Definition of CS

The term "code-switching" was initiated by Hans Vogt in 1954 who identified CS as a common and natural phenomenon that occurs during language contact. Hence, several definitions of CS have emerged (Fatemi & Barani, 2014). Moreover, differences in the foci of

research on CS is the cause in having these several definitions of the concept. It is true that there are many research studies in the field of CS, yet it lacks to a common consensus on its understanding. Gumperz defined it as "the juxtaposition within the same speech exchange of passages of speech belonging to two different grammatical systems or subsystems" (1982: 59).

Comparably, Myers-Scotten (1993) identified CS as the use of two or more variations of linguistics in a single conversation. Similarly, Milroy and Muysken (1995) described it as an alternate use of elements of different dialects or languages in the same conversation. Likewise, Auer (1998) explained it as a situation when two languages are juxtaposed within a sentence or a discourse. Also, for Li Wei (2001), CS between languages occurs between bilinguals when interacting. Consequently, in a usual discourse, CS is a person's alternation between two different languages.

CS happens when one bilingual talks to another and while talking, switches between two languages. Thus, in a normal discourse, CS happens when a person stops speaking in one language and starts speaking in another and then goes back to the first and keeps on rolling between two different languages.

In this regard, Auer (1999: 310) points out that the term code-switching is reserved for "those cases in which the juxtaposition of two codes (languages) is perceived and interpreted as a locally meaningful event by participants". In addition, it is important to link the above with Wei's description of bilingualism as "language is the property of the group, bilingualism is the property of the individual. An individual use of two languages supposes the existence of two different language communities" (2000: 26). Thus, akin to Auer, Wei shares the same perception as Auer's that a bilingual does not necessarily entail that the person is fluent in both languages.

In addition, Verschueren (2003) assessed the stimuli in his definition that may invoke CS by stating that dialectical systemization occurs when dialects or languages are selected

systematically depending on geography, class, functions, or context. Furthermore, Milroy and Gordon (2003) stated some additional social purposes such as closer connections between interlocutors that might contribute to CS in which the shifting of language can be used to exchange collaborative meanings between people. In sum, CS can be generally understood as speakers mixing two or more languages during a discourse (Nilep, 2006). This description of CS that can occur within clauses or sentences serves our purpose in this project.

Language wise, Myers-Scotton (1993) proposes that CS is not necessarily a complete switch to the other language. She states in her Matrix Language Frame Model (MLF Model) that one of the two languages (matrix/base language) dominates the grammatical structure of the target language (guest language). "Classic CS" is a term by Myers-Scotton (2006: 241) which describes clauses including parts from two or more linguistic varieties, yet only one of these varieties controls the sentence morpho-syntactically. Moreover and proficiency wise, Schwieter and Sunderman (2008) suggest that the highly proficient bilingual speakers code-switch spontaneously and effortlessly which supports Poplack's (1983).

Overall, during the last few decades, a wide range of phenomena (often covered by the term "code-switching" in the literature) have been described in which two languages are juxtaposed in discourse (inter- or intra-sententially). These include cases of the juxtaposition of two languages other than CS, variously referred to as "code-alternation", "code-mixing", etc. In this regard, Georgakopoulou (1997: 148) points out that CS is often "taken as an umbrella-term which encompasses a continuum of code alternations, more or less rapid, occurring in the same turn or in different turns, and involving phenomena such as transfer and code-mixing". In contrast, Milroy and Muysken (1995: 12) point out that the field of CS research is "replete with a confusing range of terms descriptive of various aspects of the phenomenon", adding that "sometimes the referential scope of a set of these terms overlaps and sometimes particular terms are used in different ways by different writers", as will be

demonstrated in this section. Hence, in order to classify other language practices accurately and correctly, the following terms need to be clarified and distinctions made.

2.3 Borrowing and CS

In terms of the distinction between CS and borrowing (discussed by scholars such as Poplack, 1980, 2001; Gumperz, 1982; Myers-Scotton, 1992), numerous criteria have been suggested to differentiate between these concepts. These follow the structural approach to CS, which addresses the question of clarifying the boundaries between CS and lexical borrowing before starting the analysis.

At this point, it should be noted that this distinction and particularly the concept of "borrowing" (lexical borrowing as well as nonce borrowing) will be discussed in a little more detail than any other language contact subjects mentioned in this section, as it is closely related to the study of CS.

Some scholars, including Pfaff (1979) and Poplack (1980), draw attention to the need to distinguish between CS and borrowing with regard to the formulation of the syntactic constraints on where switching can occur within the sentence. They refer to intra-sentential CS as the only relevant type of switching in terms of syntactic constraints. According to Gumperz (1982: 66, 1977: 6), borrowing can be defined as "the introduction of single words or short, frozen, idiomatic phrases from one variety into the other" while "the items in question are incorporated into the grammatical system of the borrowing language". Furthermore, "they are treated as part of its lexicon, take on its morphological characteristics and enter into its syntactic structures". On the other hand, as Gumperz (1982: 66) explains, "code switching, by contrast, relies on the meaningful juxtaposition of what speakers must consciously or subconsciously process as strings formed according to the internal rules of two distinct grammatical systems".

However, the problem of distinguishing CS from borrowing is a more complex issue, as the difference between them is often somewhat unclear. According to Boztepe (2003: 5), there are "two contradictory approaches as to whether and how to distinguish between the two terms". In addition to lexical borrowing, another type of borrowing has since emerged. Nonce borrowing, like lexical borrowing as its counterpart, "tends to involve lone lexical items, generally major-class content words, and to assume the morphological, syntactic, and often, phonological identity of the recipient language" (Poplack, 2001: 2063). On the other hand, unlike established lexical borrowings, there is no matching to the criteria of use frequency or the level of acceptance, as nonce borrowing is "neither recurrent nor widespread, and necessarily requires a certain level of bilingual competence" (Poplack, 2001: 2063). This characteristic in particular makes nonce borrowing similar to CS. Therefore, Poplack (2001: 2063) argues that for this reason, "distinguishing nonce borrowings from single-word CS is conceptually easy but methodologically difficult, especially when they surface bare, giving no apparent indication of language membership". Thus, it is fundamental to stress that borrowing and CS are different linguistic manifestations both in their formation and in their structures (Poplack in Heller, 1988).

Contact between cultures causes linguistic borrowing from each language for many purposes like the lack of such terms in the original language. In line with this observation, Fasold (1984) believes that when new concepts are presented to a culture, the need for new terms is necessary, and this is called "borrowing". Armstrong described borrowing as "one of the ways in which a language reviews its lexicon" (2005: 143). Borrowing depends on the transference of a word from one language into another at different levels with varying degrees, "phonological", "morphological", "lexical", "semantic", "orthographic", and "phraseological" (Humbley & Mene, cited in Capuz-Gomes, 1997: 84).

Throughout the process of borrowing, some sounds of the words are omitted or converted into Arabic sounds so as to comply with the phonological rules of Arabic. The practice of borrowing from other languages, which was used in the Middle Ages to provide new terminology, has been considered as “a means of filling gaps in scientific terminology” (Bentahila, 1983: 136) and it still exists in Arabic today. Basically, one of the most important contributors to the fast modernisation of the Arabic language has been the integration of a great number of words from other languages, such as English, French, Italian, Spanish, Turkish and Portuguese (Al-kenai, 2018). Hence, in this process, the morphology of the borrowed word is formed according to the well-known Arabic “awzan”, through what might be called a relative analogical technique of reformation (Mahadin, 1996: 327).

With regard to English and Arabic (the foci of the current study), both have been borrowing words despite the differences between the two languages’ structures and phonetics (Chejne, 1969). The process that the borrowed words go through is called “Arabization”. The word “arabize” means to “make Arabic in form, style, or character” or to “bring under Arab influence or control” (The American Heritage Dictionary of English Language, 2009). In Arabic, Arabization is called “ta'reeb”, which is a method used by speakers of Arabic in old times by writing a letter that comes close to the Arabic pronunciation. Borrowing a certain word from another language, according to Seebawaih (1966), is “ta'reeb”, which means transliteration.

Generally, borrowing can be defined as the process by which one language or dialect integrates some linguistic elements from another language. While loan words are either adopted or modified, adopted words may emerge with no change in the foreign elements. On the other hand, modification consists of altering the foreign form to meet the original linguistic forms of the recipient language, either completely or partially (Anttila, 1972). Consequently, it can be noted from the above explanations that both borrowing and one version of loan words

take on the adopted foreign words with no change. Thus, the word "borrowing" will serve in the current study as an umbrella term for the English words that are used by the participants in their online interaction with no alteration, written in either English or Arabic. Modified loan words that have been reformed into Arabic will be called "Arabized".

To relate borrowing to CS (the core of this study), the following should be noted: researchers often misperceive different bilingual behaviours, including code-switching, but little focus is given to further borrowing on community and individual scales, or to partial language acquisition and interference that show indications of CS patterns. The variables related to borrowing and CS should be community wide since individual indexes can only be implied through the community norms. In other words, the distinctions between CS and borrowing should be clear to evaluate each phenomenon according to its own criteria, thus no neglection or misperception can occur due to the overlapping variables of each phenomenon. These variables can be summarised as follows:

a) *the bilingual ability of the informant in each of the languages; that is, the proficiency of individual interlocutors,*
b) *the detailed nature of the two monolingual codes in question as they are actually used in some bilingual community, and as distinct from the "standard" varieties of either,*
c) *the existence of particular community-specific or "compromise" solutions to the problem of reconciling two codes with conflicting rules within the same utterances, solutions which may be ungrammatical and/or unacceptable in other communities. Arabization is an example of that* (Poplack in Heller, 1988: 216).

2.4 Code-Mixing

In terms of code-mixing (hereafter CM), it is often used as an alternative to CS but some researchers believe it is a different construct, because it is problematic in more than one aspect. First, Gafaranga (2007) considered that the term 'code' is itself difficult to make distinct as some researchers use the two notions, 'code' and 'language', interchangeably (e.g., Muysken, 2000), while others (Alvarez-Caccamo, 1998; Gafaranga & Torras, 2001) differentiated between the two notions. Second, another perspective is that some researchers

use CM to refer to intra-sentential switches that occur within the same clause, unlike CS, which mostly occurs with a changed phrase or clause (Kachru, 1978; Singh, 1985; Bokamba, 1989; Muysken, 2000; Ismail, 2015). For example, Muysken used the term CM to refer to "all cases where lexical items and grammatical features from two languages appear in one sentence" (2000: 1), and Bokamba described it as "the embedding of various linguistics units such as affixes (bound morphemes), words (unbound morphemes), phrases and clauses from two distinct grammatical (sub-) systems within the same sentence and speech event" (1989: 278).

A major distinction has to be made between CS and CM as they are thematically related terms. Even though the usage of these terms varies, they are often used interchangeably. In this regard, Auer (1999: 310) points out that the term "code-switching" is reserved for "those cases in which the juxtaposition of two codes (languages) is perceived and interpreted as a locally meaningful event by participants". On the other hand, the term "code mixing" is used for "those cases of the juxtaposition of two languages in which the use of two languages is meaningful (to participants) not in a local but only in a more global sense, i.e., when seen as a recurrent pattern" (Auer, 1999: 310). In summary, Auer (1999: 310) argues that this transition (from CS to CM) is "above all an issue to be dealt with by interpretive sociolinguistic approaches since it is located on the level of how speakers perceive and use the 'codes' in question".

On the other hand, Clyne (1987: 740) believes that "a problem occurs when switching and mixing are employed contrastively". In order to illustrate the use of terminology when referring to different language contact phenomena, which may possibly generate further confusion, we will use the following example:

> While Pfaff (1979) and Romaine (1986) use 'mixing' as a generic term to cover both 'borrowing' (Clyne's 'transference') and 'code switching', Wentz and McClure (1977) employ 'code switching' as the generic term with 'code changing' (note: Clyne's 'code switching') and 'code mixing' (note: Clyne's 'transference') as the subcategories; and Di Sciullo et al. (1986) [...] appear to use 'code mixing' as a generic term and as the main term for the phenomenon under consideration, with 'switching' occasionally appearing as a synonym [...] (Clyne: 1987: 740).

Moreover, drawing on the structural and syntactic distinctions between two different types of switches, some researchers reserve the term code-switching for inter-sentential switches only, and they use code-mixing to refer to intra-sentential switches. Boztepe (2003: 4) points out that the reason for this may be that "only code-mixing (i.e., intra-sentential CS) requires the integration of the rules of the two languages involved in the discourse".

Thus, due to the lack of distinctive boundaries between CM and CS, and as this is not the focus of this project, CS will be used in this project as an umbrella term to refer to both intra-sentential and inter-sentential alternations of language (types of CS will be discussed in the next section). Therefore, Arabic and English are both codes, but they use separate linguistic systems.

2.5 Types of CS

One discourse can consist of different types of switches. Basically, Poplack (1980) and Romaine (1995) identified two types where CS may be used. The first is inter-sentential CS, which occurs across sentences, clause boundaries or between speakers' turns, where switching happens when one clause uses one language while another uses the other. The second is intra-sentential CS, which occurs within a sentence, clause or word boundary such as starting the sentence with one language and ends it in another or inserting English words in an Arabic sentence. Poplack (1980) stated that intra-sentential CS, which happens within clauses, requires knowledge of syntactic mixing and changes of morphology to comprehend the complex CS occurring within clauses consisting of a high degree of syntactic mixing because it needs understanding of both syntactic and morphological structures.

Later, Cheshire and Gardner-Chloros (1998), in their categorisation of CS types, added a distinction between intra-sentential switching and the most common type of switching, single-word switches. They distinguished turn-switching as a different category from inter-

sentential switching. Turn-switching has been defined as a change in a bilingual's language from that of the other interlocutor and a sign of uncooperative communication (Cheshire & Gardner-Chloros, 1998: 20). In contrast, Valdès-Fallis (1978, cited in Cheshire & Gardner-Chloros, 1998: 16) used the term "sequential switches" to describe a switch into the former speaker's language and viewed this switch type as an indicator of the speaker's collaboration in the conversation. Finally, Poplack (2000) distinguished a third type, which is extra-sentential or tag-switching, to describe the insertion of tag elements from another language into a monolingual discourse both those that occur at the end of a sentence and utterance boundary. The switch occurs outside the sentences or phrases; for example, "okay", "well" or "you know" are added in English while the whole sentence is said in the other language.

In summary, CS may take place at any level of linguistic structure (outside of the sentence, within a single sentence, within a constituent and even within a word). In line with this classification, Gumperz (1977: 1–2) argues that "most frequently the alternation takes the form of two subsequent sentences, as when a speaker uses a second language either to reiterate his message or to reply to someone else's statement", adding that "often code-switching also takes place within a single sentence". Additionally, in DMC discourse, conversational CS and non-conversational CS can be found. However, common to these studies is that the communicative purposes of CS are not discussed. This is a gap that needs thorough study.

2.6 Theoretical Explanations for CS

This section discusses some of the theoretical explanations behind CS. These explanations clarify how and why bilinguals engage in CS.

In the mid-seventies, Goffman (1974, 1979, 1981) introduced the theory of "footing", which can be considered as a reference for many CS functional descriptions. For him, footing referred to the speaker's stance or positioning during an interaction. He proposed that an

interlocutor usually has multiple roles that alternate within an interaction for different reasons such as purpose and context. His concept of "footing" can be identified as "changes in alignment we take up to ourselves and others present as expressed in the way we manage the production or reception of an utterance" (Goffman, 1981: 126). Moreover, he suggested the notion of frames, which can be described as "the organizational principles by which situations are defined and sustained as experiences" (1981: 1974). In this sense, a frame is a social limitation that makes participants feel obliged to act in specific ways.

Goffman's social contribution, together with Gumperz's (1982) anthropological approach, created the analytical approach to data analysis that has recently become known as interactional sociolinguistics. Thus, Gumperz's (1982) concept of contextual knowledge can be attributed to Goffman's theory of frames. Undeniably, Goffman cited Gumperz's descriptions of CS as examples of footing. Footing is the alignment between the communication of the speaker and that of the hearer (Goffman, 1981). The notion is that every time people talk, they make language choices based on their relationship with their communication partner. An example would be a senior manager at a corporate institution who teases an intern about casual dressing at a formal function. However, there is one difference between his own theory of footing and Gumperz's and others' descriptions of CS: CS (at least for Goffman) is essentially the shift from one language to another, whereas footing shifts can occur in a variety of ways, not only in the language. As he described, "for speakers, code-switching is usually involved [in footing shifts] and if not this then at least the sound markers that linguists study: pitch, volume, rhythm, stress, [or] tonal quality" (Goffman 1981: 128).

Gumperz (1976) claims that those cues form what he called the "we/they code". Gumperz's (1976) study on a Hindi/English participant showed that the participant viewed coding to English (they) as a threat somehow, whereas the Hindi "we" had more of a personal appeal. A decade later, Gumperz argued that CS comprises "contextualization cues" that are

"surface features of message form" (1982: 131). He therefore suggested that CS is an expressive signing tool employed by speakers to convey meanings such as affection, anger or identity. The contextualisation convention serves as a "channel interpretation in one direction or another" (Gumperz & Gumperz, 1982:18) that is either approved or disapproved; it is acquired due to an individual's real communicative experience.

Bourdieu (1977b, 1991) originally contributed to language contact phenomena with his theory combining micro-level linguistic differences with macro-level societal elements. His two key concepts are habitus, and symbolic capital. Habitus refers to an individual's own personality and motivations to behave in a specific way. This capital is formed by the person's childhood knowledge and it controls one's attitudes and perceptions. It reveals the person's deeply rooted social background. On the other hand, symbolic capital refers to one's linguistic proficiency. In his theory of practice, Bourdieu (1977a) suggested that there is an essential relationship between one's behaviours and interests, which may consciously or unconsciously occur. Thus, he proposed that the linguistic activities of a person are strongly produced and shaped by that person's social background, which imparts the knowledge of when and how to say the right thing in the right place at the right time (cf. Blom & Gumperz, 1972). For better understanding, the following example shows the use of CS and style-shifting by an old woman from a village in Béarn, a province in south-western France:

> [The old lady] at one moment used "provincialised French" to address a shopkeeper's wife, a young woman originating from another large market town in Béarn; […] the next moment, she spoke in Béarnais [the local dialect] to a woman who lived in the town but who was originally from [the villages] and more or less of her own age; then she used a French that if not "correct" was at least strongly "corrected" to address a minor official in the town; and finally she spoke in Béarnais to a [roadworker] in the town, […] aged about fifty (Bourdieu, 1977b: 657).

In the above example, according to Bourdieu, the speaker evaluates the contextual cues such as power relations, familiarity and age and predicts how her linguistic utterances will likely be perceived. She seeks to fit into every context, by switching from French to Béarnais to what is regarded as appropriate. This procedure serves as an inner control for her code choices, which

can be explained as “what is said is a compromise between what would like to be said and what can be said” (1977b: 663).

It is important to add the classical notion coined by Auer (1998) about discourse-related CS. This can be summarised in several points; firstly, it happens in a sociolinguistic context where interlocutors make code choices according to their best convenience. Secondly, when a switching code launches, it can be understood as a sign of “otherness”, which consequently switches the “footing” (ibid, 1998: 3). Thirdly, although the relation between codes and the context in which CS occurs is identifiable, the contexts and the meanings implied may vary greatly from one community to another. Fourthly, CS can be used individually or within a group as a familiar and common CS recognised by the members of that specific group. Because most CS occurs inter-sententially or intra-sententially, for Auer (1998), CS occurrences must be long enough to form a linguistic activity. Last but not least, Auer believes that a code switcher does not have to be competent in the other language.

Similarly, Wei described bilingualism in the following terms “language is the property of the group, bilingualism is the property of the individual... An individual use of two languages supposes the existence of two different language communities” (2000: 26). Thus, akin to Auer, Wei shares the same perception that being bilingual does not necessarily entail being fluent in both languages. Furthermore, this statement by Wei about the ownership of a language may contribute to the argument above on Zentella’s (1997) statement about comparing bilinguals’ choice of codes to monolinguals’ choice of words, which seems invalid.

To sum up, referring to the scholars’ views discussed above and connecting those with the current project’s foci, it can be concluded that: a) a bilingual does not have to be equally proficient in both languages (this can serve as a basis for this study’s methodological approach for selecting the participants; and b) the relation between the linguistic attitudes and the social behaviours of a speaker may be considered as a foundation stone for this project.

2.7 Patterns of CS

It is worth noting that previous research studies carried out on online CS, have mainly focused on its types of switching and the purposes of CS. Consequently, this project is concerned with language, culture, social aspects and how people make advantage of language to co-establish their daily worlds especially their own social roles and personas. This section seeks to understand the patterns of CS as employed by bilinguals.

Regarding the patterns of CS, one way to explain CS is using typological differences in language such as social as well as psycholinguistic factors that impact language choice (Myers-Scotton, 1993). Additionally, dialects of the target language can be influenced by languages spoken in the vicinity. For example, Arabic is spoken in different dialects based on influences of multiple languages such as English, Urdu, Persian, Italian and Turkish (Heredia & Altaribba, 2001). In line, other influencing factors such as the variety of writings and cartoons may affect these dialects (Ismail, 2015). The term CS will be employed in this study to include all the previously mentioned types with a specific emphasis on exploring new patterns or types that might have emerged in the Saudi DMC – this is one of the current project's main objectives.

Poplack identified one pattern of CS, "simultaneous use of elements from both codes", (Heller, 1988: 239) in her study on French-English cases in Ottawa-Hull French, which has also been proven nationwide in other varieties of Canadian French. To wrap up, Poplack differentiates between "whether a given item is switched or borrowed" (1980: 4). Moreover, she added that bilingual communities show commonly different patterns of adjusting monolingual linguistic capital in their CS strategies that cannot be predicted (Poplack, 1987).

In addition, Poplack et al. (1988) and Sankoff et al. (1990) identified various patterns of CS. The first is conventionalised CS, which is "more frequent in one speech community" than in another (Muysken, 1995: 190). Second, "nonce borrowing" is one-word CS. The

distinction between them is conceptually possible but methodologically challenging particularly when they occur separately which makes it difficult to recognize their linguistic source (Poplack, 2001). Finally, established loan words suggest the morphological, syntactic, and often, phonological, identities of the recipient language. They seem to be more repeated in spoken language and common across the community (ibid, 2001).

More recently, Crystal framed a reference for "internet linguistics". He characterised four perspectives of its formal character that profoundly distinguish it from traditional conversational speech and from writing. These four perspectives are: sociolinguistic, "the internet has given language new stylistic varieties"; educational, "rethink a fresh relationship between nonstandard and standard English"; stylistic, "internet and its associated technology is fostering new kind of creativity through language"; and applied "how the usage tension applies equally to its communicative capabilities" (2005: 1–2). It should be noted that Crystal's position does not negate the prevalence of CS in the language of the internet.

In this study, the linguistic practices will be connected to two perspectives only as they are the core of this study: the sociolinguistic and the stylistic. These two were chosen particularly because they highlight how the internet facilitates novel and creative linguistic varieties.

Al-Thunaibat and Singh (2020) conducted one of the most recent studies that adopted Crystal's theory and looked at communicative functions. They ran an empirical study with a focused group to explore language changes among Jordanian University students. They focused on WhatsApp communication, similar to the current study. Their results identified six patterns: CS, abbreviations, leetspeak "using letters, numbers and symbols to replace words or parts of words like just 4 u" (2020: 3737), emoticons, reduplication of letters, and rebus "using a picture by its pronunciation to replace a word or a syllable of a word" (3740). According to Muysken (2000: 3), the patterns of intra-sentential CS are: first, insertion (lexical items or

entire constituents) a structure from one language into the other's; second, the interchange between structures of languages; and third, "congruent lexicalisation of material from different lexical inventories into shared grammatical structures".

Thus, the difference between types and patterns is that types categorise either the place where the switch occurs or a purpose for switching, while the patterns identify the form, the change and the source of the switched word.

Table 1 CS Types

CS Type	Reference
1/ sequential switches (collaboration)	Valdès-Fallis (1978)
2/ inter-sentential	Poplack (1980) and Romaine (1995)
3/ intra-sentential	Poplack (1980) and Romaine (1995)
4/ single-word switches (similar to nonce borrowing)	Cheshire and Gardner-Chloros (1998)
5/ turn-switching (uncooperative)	Cheshire and Gardner-Chloros (1998)
6/ extrasentential or tag-switching	Poplack (2000)

Table 2 CS Patterns

CS Pattern	Reference
1/ Matrix language vs. guest language	Myers-Scotton (1993)
2/ Intra-sentential Insertion alternation congruent lexicalisation	Muysken (2000)
3/ A switching or borrowing	Poplack (1980)
4/ Nonce borrowing	Sankoff et al. (1990)
5/ Established loans	Poplack et al. (1988) & Sankoff et al. (1990)
6/ a) sociolinguistics b) educational c) applied d) stylistic	Crystal (2005)

From the above, it can be seen that there is a glaring dearth of knowledge about CS patterns used by Saudi bilinguals. Thus, the first aim of the current study is to explore the CS practices used online by bilingual Saudis. The practices found in this study's data will therefore be either compared or added to the patterns mentioned above.

The next section focuses on the influences or motivations of speakers and the functions of CS. It will zoom in those most widely referred to and then discuss their critiques.

2.8 Motivations and Functions of CS

In terms of functions, Barasa's study, which sought to identify the functions of CS in DMC, suggests that although CS in DMC is to an extent relatively similar to spoken CS "in terms of language manifestation and deliberateness, its discourse functions reveal features that are specific to DMC contexts" (2016: 49). This is almost similar to the understanding sought by this study in the Saudi context. According to Barasa (2016: 62-67), these unique functions of CS in DMC, more importantly relating to the communicative function of CS, include: rapidity which is the main feature of synchronous DMC; creativity and fun, which compensate for the spoken conversation cues (like gestures, posture, prosody, intonation, etc.) that are absent in DMC. People conversing through DMC fill these gaps with linguistic and non-linguistic CS (as will be discussed in Chapter 4).

There can be social or psychological motives behind CS. Thus, sociolinguists study social environments that can cause conscious CS and psycholinguists study the switching process within the minds of the individuals. Psychological stimuli can be complicated and therefore, are comparatively new in the field of linguistics. Usually, people believe that CS occurs due to the lack of linguistic competences yet literature has indicated that CS plays an essential role in social purposes and it is not necessarily incompetence because many studies proved that code-switchers can be proficient in both languages as well as in the CS. This study's participants are mostly proficient speakers and this will test the prevalent thinking.

In such situations, a speaker may use CS in order to make communication more effective, appropriate and purposeful. Hence, CS can be explained with a conversational analysis of bilingual speech as this will allow the CS process to be placed according to the

specific purposes of that particular interaction. This also takes into account the context and the participants' motivations (Myeres-Skotton, 1993, 1998). Scholars such as Gumperz (1982) and Malik (1994) have discussed the motivations and functions behind CS. Gumperz's view of CS is focused on the language use. According to him, CS is an occurrence in a conversation, as an aid to contextualisation, whereas Malik sees the motivations for CS as a mixture of socio and linguistic ones. Their findings are listed below:

Table 3 CS Motivations

Malik (1994)	**Gumperz (1982)**
1/ Lack of facility	Quotations
2/ Lack of registerable competence	
3/ Establish identity	Personalisation vs objectivization
4/ Emphasise a point	Reiteration
5/ Mood of the speaker	Interjections that serve as "sentence fillers" (Gumperz, 1982: 77-78), which fits with "tag-switching" (Poplack, 2000)
6/ Habitual Expressions	
7/ Attention	Message qualification
8/ Semantic Significance	
9/ Pragmatic Reasons	
10/ To address different audiences	Addressee specification

The green colour indicates the common motivations between the two scholars.

It should be noted that this is all based on oral CS, and this study considers written CS in DMC (all means of DMC such as texts, visual and audio, which will be addressed as affordances in section 3.3). This study seeks to understand whether the differences are replicated in DMC and if not why.

Moreover, Gumperz (1982: 81-82) argues that the possibility of isolating the conversational functions of CS (such as those listed above) serves as the first step of analysis in terms of providing a set of categories that can be employed, further pointing out that:

> The above list, although by no means exhaustive, illustrates some of the most common uses of code switching. The range of interpretations that results is much greater than one would expect from speakers' descriptions of language usage in terms of the simple 'we' and 'they' dichotomy. What is conveyed varies greatly with context and discourse content. Yet the same kinds of uses or functions tend to recur in what on both linguistic and social grounds are quite distinct situations.

Regarding Malik's (1994) "lack of facility", many bilinguals use CS when they are unable to find the right equivalent in their native language. Thus, the lexical items are borrowed from the L2 (Thirumalai et al., 2013). However, some researchers have distinguished between CS and lexical borrowing because the latter is the result of a lack of lexical terms available in the speakers' repertoire. On the other hand, as Holmes (2000) stated, CS is about speakers having authentic options of which words or phrases to use in which language. Hence, in her opinion, it can only be considered CS when the speaker has a free choice from a wide variety of lexical terms – being short of terms cannot be considered CS. In other words, when speaking one language, people frequently use words that are derived from other languages; some words are used without any change while other terms are borrowed with minor adjustments. For example, "coffee" was borrowed from the Arabic word "qahwa" (Sabar, 1984) with a slight modification, but "banana" was borrowed from Spanish without any modification. It is argued that borrowed words are used by monolingual and bilingual speakers, as the words are commonly recognised and used as a part of the language. Consequently, borrowing happens at a greater lexical level that does not require the speaker to know other languages.

According to Malik (1994), speakers usually code-switch when they cannot find a suitable expression or term to carry on the conversation smoothly. The motivation for switching may however be culturally conditioned. For example, "Charan Sparsh" [touching feet] does not mean the same in another speaker's code as it does in Hindi. Another example of this is

presented by Muthusamy (2009: 4): the English term “social drinker” is used in Malaysia, because there is no equivalent term in the Malay language, simply because drinking is prohibited in Islam.

One of the most crucial motivations mentioned by both Malik and Gumperz in the list above is establishing identity, which is very relevant to this research. They argue that CS is usually employed for co-constructing a persona within a social community. Moreover, it is argued that personal linguistic growth is a result of society following specific linguistic systems. In this regard, Grosjean stated: “code-switching is also used as a communicative or social strategy, to show speaker involvement, mark group identity, exclude someone, raise one’s status, show expertise, and so on” (2010: 787). For this study, this is relevant since it foreshadows the study’s aim.

In the 1960s, Blom and Gumperz conducted a study in northern Norway, in a village called Hemnesberget. The two famous sociolinguists thoroughly studied villagers’ language. The aim of their study was to investigate bilingualism and CS in the use of local dialects. They stated that Hemnesberget villagers use two different Norwegian varieties: the local dialect, Ranamål (Rana is the district, mål is the Norwegian word for ‘language’), and standard Norwegian, Bokmål (literally ‘book-language’). Bokmål was used by teachers in academic settings as it was the language of the textbooks and hence it was also the language the students used to chat about school topics in school. Bokmål was also used in church services, religious sermons and the media, and with foreigners, while Ranamål was used among family members, friends and neighbours. This shows that the local dialect signalled membership in the local speech community but, if a local person used Bokmål to buy petrol, he or she would be considered as ‘stuck up’ or “putting on airs” (Holmes, 2000: 5).

The relevance of Blom and Gumperz’s study for this research cannot be over-emphasised as it laid the foundation for understanding the reasons for CS, even among people

who knew each other well. For this study, it is interesting to discover whether CS in DMC is employed in social contexts involving academic or religious issues, and/or among friends and people with whom the communicators have a personal relationship.

In terms of critiques, Myers-Scotton (1993: 63) criticises Gumperz's interactional-interpretive perspective on CS for merely representing "a better taxonomy approach", in which the "favorite method of presentation is to use an open-ended listing of 'functions' with examples, with a final disclaimer to the effect that there are many other functions as well". Furthermore, Myers-Scotton (1993) calls for more systematic theory formation for the study of CS, as this could establish "universally applicable explanatory and predictive principles underlying the socio-pragmatic motivations for codeswitching" (Meeuwis & Blommaert, 1994: 389).

Likewise, researchers argued that in some cases, speakers switch codes to decrease social differences. Thus, accommodation theorists believe that switching between languages or varieties is one of the speaker's means to express solidarity towards or away from other interlocutors (Giles et al., 1991). Likewise, Holmes (2000) indicated in her book *Introduction to Sociolinguistics* that when a speaker switches to another language, it may be a sign of group belonging and shared ethnicity with an interlocutor. They also added that even if the speaker has no equal proficiency in the embedded language, they may at least insert short phrases or words for that reason. For instance, the following examples show that regardless of whether or not speakers' language proficiency is high, they insert some borrowed or loan words into their English sentences:

> (a) Tamati: Engari [SO] now we turn to more important matters. (Switch between Maori and English)
> (b) Ming: Confiscated by Customs, dà gài [PROBABLY] (Switch between English and Mandarin Chinese)
> (c) A: Well, I'm glad I met you. OK?
> M: ándale pues [OK, SWELL], and do come again. Mm? (Switch between Spanish and English) (ibid, 2000: 35)

In addition, Holmes argues that placing the switched tag at either the beginning or the end of the sentence is called "emblematic switching or tag-switching and may serve as an ethnic identity marker" (2000: 35). In (a), Tamati uses a Maori tag at the beginning, while the Mandarin speaker in (b) uses a final tag. Also, the exchange in (c) is placed between two Mexican Americans who used a Spanish tag to express the relevance of their shared ethnic background to their future relationship. These examples are selected to show a solidarity signal between two minority ethnic group members whose preceding utterances were entirely in English.

Another motivation that has been mentioned in the list is emphasising a point (Malik, 1994) or reiteration as Gumperz (1982) called it. CS is often used in a conversation to stress a point (Gal, 1979; Anderson, 2006), in the belief that switching to another language can add power to a statement. A study by Taha (2008) found that in classrooms, Arab teachers who teach English prefer to firstly give explanations in English and then stress them in Arabic to highlight important points and ensure that the students understand what has been explained. Therefore, CS in this example is used as a juxtaposition between the two languages for emphasis.

Likewise, Shizuka (2006) conducted a study which concluded that the participants mostly code-switched from English as a second language (L2) to Japanese which is the first language (L1), not because of a lack of equivalent phrases, but rather for emphasis and clarification. This corresponds with Malik and Gumperz's CS functions. Similarly, Bailey (2000) found in his study of Dominican American high-school students that they code switched to confirm their equal understanding. He stated that CS is a "particularly powerful framing device to repair a misunderstanding" (2000: 180).

One of the motivations is the mood of the speaker (Malik, 1994) or as expressed by Gumperz (1982), interjections that serve as "sentence fillers" (Gumperz, 1982: 77-78) and

"tag-switching" (Poplack, 2000). CS often occurs spontaneously in some situations such as anger which makes the speaker swears in the first language as they generally prefer even if the rest of the conversation is carried out using L2. When experiencing anger, the person may find it difficult to find the right words in L2 but in their native language, they are activated more quickly. Similarly, Grosjeans quotes a Russian-English bilingual as saying, "When I speak to another Russian-English bilingual, I don't speak as carefully and often the languages blend. This also happens when I am tired or excited or angry" (1982: 150). Dewaele (2004) shows this in his study when he reports that swear/taboo words in L1 are often preferred because of their greater perceived strength and exact calibration. Further to that, he also shows that people's perception of the emotional force of swear-taboo words in a second, third or even fourth language is often that they are relatively weaker than those in their L1 and that consequently, swearing in their L2 may have wanted or unwanted illocutionary effects.

In addition, emotions are normally expressed in the native language and therefore, the code is switched from L2 to L1. It is more likely for a speaker to use his/her native or more comfortable language to express feelings such as happiness or anger as it brings closeness to the communication. As Holmes (2000) indicated, a language may be switched sometimes to show dissatisfaction with one's use of a language, especially if the meaning in that language is considered inadequate or weak. Likewise, Al-Khatib provides an example of CS to express feelings:

> After asking nicely for a piece of paper from her brother's pad, to no avail,
> **A** attempts to snatch a paper from his jotting pad **W** in **J3**: (did I say *ey* [yes] did I say *ey*? When I say *ey* it means *ey*, when I say *la'* [No] it means *la'*. (2003: 414)

In the example provided by Al-Khatib, the speaker used more than one language (English and Arabic) to express anger and dissatisfaction, hence the use of the use of "*ey*" and "*la*".

Regarding the use of CS to attract attention, Gumperz argued that for this purpose it can be stylistic or emotional. Similarly, Malik (1994) showed that in commercials (written, spoken, audio or visual) in India, CS is a way to draw the audience's attention. For example, in English newspapers when readers find any non-English, e.g., Hindi or any other Indian varieties, then their attention is automatically drawn to their original language. Although Abu Bakar (2009) confirmed the same notion, which is when more than one language is used in the media or advertisements, the audience is most likely attracted to their preferred language first, this kind of language usage has been banned from the national television of Malaysia because it causes negative attention and ruins the national language and identity (Abu Bakar, 2009).

In terms of semantic significance, researchers like Malik (1994), Gumperz (1970, 1976, 1982), and Gumperz and Hernandez (1972) all stressed that CS can be used as a verbal approach for the delivery of important and meaningful linguistic and social messages. Blom and Gumperz argued that:

> The semantic effect of metaphorical code switching depends on the existence of a regular relationship between variables and social situations. The context in which one of a set of alternates is regularly used becomes part of its meaning so that when this form is then employed in a context where it is not normal, it brings in some of the flavour of this original setting (1972: 425).

With regards to addressing different audiences, some researchers like Gumperz (1982) suggested that switching languages is important in order to specify the addressees and to convey messages when they are targeted at different listeners or recipients, to facilitate easy understanding. For example, research by Alfonzetti (1998) on Italian-dialect switching suggested that CS can be used for conversational analysis of communicative competence and that CS occurring naturally among bilinguals is a communicative approach employed specifically for the purposes of the speaker. It can be considered as a cue for the recipient to interpret the given message a certain way.

In the same way, Malik (1994) stated that CS is also used when the speaker intends to address an audience that has different linguistic backgrounds. For example, on India TV, announcers usually use Hindi as the national language but they also switch to English to repeat the same for South Indians or Indians who are not familiar with Hindi. Likewise, Appel and Muysken (2006) reported that the main function of CS is to directly engage and affect the listener in a way that facilitates shared meaning and understanding. Furthermore, bilingual speakers may prefer to include or exclude a person from the interaction by using a language that the recipient knows or does not know, as illustrated in the following example:

> Merry christmas, furong ren~~ =P
> to all my bro， 清醒了就要面对现实生活，可是千万不要忘记我们一同疯 狂和放肆过，一同抵抗这世界的洪流将我们冲走．．．［When you are awake, you have to face real life, but don't forget that we are crazy and arrogant together, and together we resist the torrent of the world and wash us away] translated by the researcher.

In the first example, the participant ended her post by addressing a specific group (furong ren: people from Seremban). She then switched to Mandarin to exclude all other users. Likewise, in the second example, the participant started the post with 'all my bro' to include only the close friends – the rest of the post was coded in Mandarin (Choy, 2011: 51).

Although Gumperz's list of CS functions has been widely used and has served as a foundation for other scholars (e.g., McClure & McClure, 1988; Romaine, 1989; Nishimura, 1997), Auer (1995) proposed that these functions are not reliable because they combine linguistic structures (such as interjections) and pragmatic functions (such as message qualification) with no clear connections between structures and functions. This tends to create a significant degree of arbitrariness and yet attempts are made to find logical connections, a development that creates inconsistencies in knowledge. This is exemplified by Bailey, who agrees with Auer (2002: 77) by stating, "the ease with which such categories can be created – and discrepancies between the CS taxonomies at which researchers have arrived – hint at the epistemological problems of such taxonomies".

In regard to social status, CS can be considered from different perceptions. Some researchers consider CS by a bilingual to exemplify a well-educated person reflecting a high socioeconomic status. Auer described it as follows "Code-Switching carries a hidden prestige which is made explicit by attitudes" (1998: 134). Similarly, Shabt (2007) stated that the speaker's desire to sound classy can be one of the motivations for CS, and AlKhatib (2003) opined that CS can be a way to show power over the powerless.

However, other researchers have different perceptions as Cook (1997) who proposed the uncertain perspective monolinguals have towards CS. They believe that those who use more than a language to interact with others are strange. Similarly, Gardner-Chloros stated that "subjects from lower occupational groups had the most favourable attitude towards CS; in fact, the more educated the respondents the less favourable attitudes towards CS" (2009: 81). Nevertheless, Grosjean (2010) categorised it differently according to the bilinguals' socioeconomic status. Those who possess higher socioeconomic status may be well evaluated by monolinguals for having the ability to speak two languages, while in contrast, bilinguals who belong to a lower socioeconomic status may be underestimated by monolinguals. It will be interesting to see how this perception matches this study's results, especially when consideration is given to the profiles of this study's participants.

Another function not mentioned in table 3 is topic, which seems to be an important factor with regard to triggering bilinguals to code-switch. As Holmes commented, "people may switch code within a speech event to discuss a particular topic". For example, "Japanese war brides in the USA, for instance, found it easier to use Japanese for topics they associated with Japan such as 'fish' and 'New Year's Day'" (2000: 37).

Moreover, in other situations, a bilingual may prefer to switch languages due to a change of topic. This was reported in Safi's study on CS motivations of educated Saudi residents in the U.S. who were enrolled in various college levels at Louisiana State University.

One of the reported motivations for Arabic-English CS was "avoiding certain possible connotations, displaying politeness and avoiding potential offense" (1992: 73). Similarly, in another empirical study, Abalhassan and Al Shalawi collected data from twelve bilingual Arabic- speaking students to answer their research question "why did you code-switch to English language?" A common answer was "Politeness and avoidance of taboo expression" (2000: 184).

This study will investigate whether this is replicated in the DMC context by Saudi bilinguals, and if so, to what extent. It is worth mentioning that although some motivations of CS are listed in the literature, some researchers suggest that not every switch is necessarily triggered by an obvious motivation. Zentella suggested that "pinpointing the purpose of each code-switch is a task as fraught with difficulty as imputing the reasons for a monolingual's choice of one synonym over another, and no complete accounting may ever be possible" (1997: 99). This statement by Zentella can be argued as meaning that it may not always be possible to compare bilinguals' CS with monolinguals' choice of words. This may partly explain why Saudi bilinguals' use of CS may differ from the monolingual use of language in both offline and online situations The next section on scholars' perceptions of CS may shed light on that statement by Zentella and add an in-depth view of the phenomena of CS.

2.9 Translanguaging (TL)

Translanguaging "is the deployment of a speaker's full linguistic repertoire without regard for watchful adherence to the socially and politically defined boundaries of named (and usually national and state) languages" (Otheguy et al., 2015: 281). Although developed in different contexts, this notion seems to test the long-assumed single-dimensional relation between language(s), place and ethnicity, and it emphasizes the flexibility of multilingual attitudes. As these notions show, language users, especially in multilingual civilised contexts,

implement all the available linguistic and semiotic resources they have in order to achieve their communicative needs and goals. Regardless of the level of language proficiency (the current study does not claim to answer questions about language proficiency), multilinguals participate in various types of TL, ranging from CS transcription and translation to construct multilingual varieties (cf. Tsiplakou & Ioannidou, 2012), which consciously or subconsciously, defy the predictable standards of linguistic attitudes. For example, the double monolingualism pattern or the incorporated bilingualism pattern. In doing so, multilinguals reveal their creativity and criticality (Wei, 2011). However, this needs to be treated with caution since the study does not answer questions relating to proficiency in general because of the small number of participants each with different subjective, self-reported levels of proficiency. Nevertheless, Wei (2011: 1223) understands by creativity "the ability to choose between following and flouting the rules ... including the use of language", whereas criticality shows, among other things, the ability to question "received wisdom".

The point of discussing this concept is that in relation to "languaging", Wei's (2018) concept of TL began with Newmeyer's (1991) article on the origins of language. Becker (1991) borrowed the term "languaging" from Maturana and Varela (1980: 34) and proposed that "there is no such thing as Language, only continual languaging, an activity of human beings in the world". This is relevant to this study as online users continue to employ all the linguistic and non-linguistic resources available during any era through any continuums for communication and self-presentation purposes. This novel view towards language as an ongoing process has started a debate over whether TL can be considered as an alternative term for different multilinguals and multimodality, replacing CS, CM etc.

In summary, the relation between this study and that discussed above is that, due to the lack of paralinguistic cues online, this study's findings argue that language has no fixed limits and is continuously in flux. For example, the participants deployed all the linguistic and

multimodal capitals available to them including those provided by various writing structures in doing personas as modern, internationally-oriented.

It should be stressed that it has never proposed that TL acts as a substitute for CS or other terms, although it tests the code perception in language. It is not assuming that named languages do not exist, but emphasises that languages are politically, ideologically and historically, defined entities. TL suggests a curtain concept of language that describes the latter as a multimodal, multilingual and multisensory resource which deployed by users for communicating (Wei, 2018).

2.10 CS and TL Positive Aspects and Limitations

Literature has shown that CS is the alteration between two languages or varieties neglecting the semiotic resources that form a basic means of modern communication. It also assumes that CS happens due to a specific motivation as previously discussed. While, TL proposes that bilinguals and multilinguals unconsciously employ all the interactive resources for the sake of communication. Therefore, TL is about the construction that creates the complete language repertoire. The analytical focus of TL is on how the user draws upon the different linguistic, cognitive and semiotic resources to make meaning. However, TL demarks the identities of individual named languages. It defines a language as a multilingual, multimodal and multi-semiotic resource. Thus it challenges the boundaries hence, language is one of many meanings which means that TL is a liberating theory that downplays the importance of CS focus on motivations. This particular point contradicts with the current study objectives because this study shows that the interlocutors have purposes of using each language. For example, the interlocutor is aware when choosing and employing each language either Arabic or English, variety such as Saudi Arabic or other Arabic varieties, or multimodality (visual and audio affordances).

It is noteworthy that most of the frameworks are mono-lingually biased. CS starts with the question of why, whereas for multilinguals, it is a matter of how, what to achieve and which is the most appropriate vehicle to achieve it.

This study embraces both approaches respectively to specific limits where each fails to fulfil this project's objectives. The CS approach serves this study in the notion that bilinguals or multilinguals are aware of the boundaries between languages, varieties and multimodality, thus they switch languages consciously. The first point of CS is to identify the language involved then to consider the structural and functional analysis. It is integrating different grammatical systems into one coherent system. On the other hand, the TL approach serves this study as it includes all linguistic and non-linguistic resources available to a user. Also, TL suggests that language has no limits, which supports the idea that language is not only able to be used for that known vocabulary we are familiar with, to but rather it is broad enough to embrace all means of communication. These linguistic practices happen purposefully to achieve the users' agenda when interacting with others.

Accordingly, this study embraces and debates the two approaches. Thus, it is positioned somewhere in between for the current study's data analysis purposes. In sum, to make the usage of the terms clear, CS will be used because it is still a valid and stable theoretical approach but it will be conducted via a TL lens for a more inclusive vision and for data analysis purposes. To illustrate, code will be used to include linguistic and non-linguistic practices which unifies the view towards any change in the code of interacting. Therefore, this study can be considered a critical overview for both approaches for the purpose of magnifying each approach's positive aspects and limitations for more thorough and in-depth outcomes.

2.11 Online Interaction vs. Offline Interaction

Since the evolution of technology in the 1980s, linguists have focused their attention on categorising DMC. Their foci are the two essential modalities that characterise DMC, which are speech and writing. There has been a debate over the fundamental nature of DMC. Researchers have asked whether it should be categorised as "written speech" as per Maynor (1994), referring to its orality, informality and rapid message exchange; or as a writing repertoire because it is a typed, written form displayed on a screen. There is also a debate over whether it is a third medium, combining the features of both speech and writing, or whether it is a unique linguistic type (Ferrara et al., 1991; Murray 1990). However, researchers like Crystal (2001) have argued that such categorisations are overgeneralised because DMC is not a single and homogenous genre, but rather a global mixture of online language, combining abbreviations, emoticons and informal spellings.

There are two categories of DMC that relate to timing: synchronous and asynchronous. Synchronous interaction requires immediate reactions and responses. While asynchronous communication allows DMC users to use and respond the media at a different time includes microblogging like Twitter. Most studies on CS in DMC environments have focused on asynchronous communication, owing to its "speech-like" nature (Herring, 2001; Condon & Cech, 2010; Georgakopoulou, 2011).

The notion of "speech community" is a crucial dimension that should be also highlighted in the context of the current study. The term "speech community" is one of the fundamental notions in sociolinguistics, the history of which goes back to the 1960s. Rampton (1998) proposes that since the beginning of sociolinguistics' focus on speech community, the purpose has been to indicate that social communities and language use are profoundly interlinked. In this study's instance, the participants are from the online Saudi bilingual community. The use of Arabic and English among this speech community and how the

participants themselves relate to the community in terms of language use need to be clearly understood.

Exploring the influence and the power of new information and communication technologies is sensitive to some considerations: the variety and complexity of the mediums involved; how interconnected they are in our human lives; and the multiplicity of interactional and textual genres that they offer. Research on DMC and on "virtual communities" highlights that communication on online platforms will continue to involve written texts, thus missing the semiotics of spoken face-to-face communication (Herring, 1996). According to Rampton, "CMC permits the revitalisation of the public sphere, an arena of one-(and many-) to-many dialogue" (1998: 6). Compared with face-to-face interaction and writing, communication in DMC, according to Rampton, provides individuals with far greater affordances to create different entities for themselves, and to elaborate on this online presence in enduring interactive social lives. The next section discusses in detail CS as it plays out in social media.

In this sense, it is crucial to discuss the notion of performativity because it is involved in both offline and online interaction. Some researchers have been careful about the nuanced collaborative dynamics of some actions. To expand, the concept of speech acts is central here (Austin, 1962). Austin explores the way in which utterances can be actions, because they do things in the world, due to utterances' perspective on communication as action, as well as action being communicative, because it means something in a particular context. Austin's concept aims to decrease the difference between semantics and pragmatics. Austin highlighted how speaking is acting and how actions speak to us. Speech acts in his opinion do not necessarily involve speech – Austin argues that there is more to action than physical movement. He highlights a very important sense of sociality which is the relation between action and language; in his mind, hand gestures like waving are taken to be examples of speech acts (Green, 2010) that can be compared to multimodality in the online realm where some emojis

represent these acts. Also, CS in itself is considered a speech act in some situations when the interlocutor uses it to approach, avoid, bully or tease other interlocutors. (This will be further discussed in section 5.8).

In addition, it is important to point to the discussion of uptake – how meanings are understood by the others – which is equivalent to the present study's objectives in exploring how meanings of multimodality and other online actions can be similarly understood by the online community.

2.12 CS on Social Media

In relation to the validity and reliability of CMC data, Zhuravleva et al. (2015) conducted an experimental study to investigate the efficiency of collecting data from social media platforms (specifically Facebook). They compared these data with those collected from questionnaires. They concluded that Facebook outcomes were more exact, reflected real-time data and provided more in-depth data about participants' interactions.

More empirical studies have focused on qualitative aspects of online CS, such as the motivations that cause CS among bilinguals or multilinguals. This suggests that social media provides a pool of rich data and places or justifies this study's source of data. Furthermore, this makes the study of Saudi bilinguals' use of the sociolinguistic aspects of CS on social media more relevant as it will shed light on which forms are most common and on the justifications for such language use. According to Das and Gambäck (2013), CS has been detected more frequently on social media channels than on formal online platforms. One of the earliest studies to investigate CS phenomena was that of Warschauer et al. (2002), in which they examined English and Arabic language use in email threads among a group of young professionals. Their findings indicated that English was used more frequently both when searching the internet and in formal (business-related) email communications. Moreover, their findings showed that from

both varieties; classical Arabic and the Egyptian Arabic used in Egypt, a Romanized variety of Egyptian Arabic was mostly in informal emails and in online conversations. Additionally, the participants intentionally selected this code when expressing highly personal content. This suggested that people may change their use of language in DMC depending on the context.

Similarly, a study with a more sophisticated methodology – methods not often used in discourse analysis of email texts, namely multi-dimensional scaling and tree diagrams – was conducted by Goldbarg (2009). She studied Spanish-English CS in the email communication of five Latin American participants and reported that English was mostly used in professional communication, whereas Spanish (the participants' first language) was mostly used to express affection, informality, and group identification. Relatedly, Durham (2003) examined language choice in a Swiss mailing list by using a corpus of 996 emails collected from 1999 to 2002. The participants were medical school students in Switzerland where educational instruction was delivered in German. She documented a noticeable increase in the use of English in the email list over time (from 10% to 80% in a four-year period). She explained that this phenomenon was because English acted as a non-native language for all the participants. Additionally, she stated that using more than one language was impractical and confusing in email communication, thus the participants had specified English as the basic language. The relevance of this study to the current study cannot be over-emphasised. In this study, with participants who have advanced proficiency in English, it will be important see if English dominates both formal and informal conversation, and analyse the factors that inform this behaviour.

Huang (2004) studied code choice and language use in the emails of eight Chinese English bilinguals in Taiwan for social communication. He analysed a corpus of 223 emails and conducted interviews and questionnaires. Generally, the participants employed three modes of email communication: Chinese/English bilingual mode, Chinese monolingual mode,

and English monolingual mode. The Chinese monolingual mode was used to express the participants' personal opinions and feelings and to show their local identities. The English monolingual mode was used by the participants to present "an embrace of international and Internet identity and of younger generation identity" (2004: 307). Huang also found that unlike the language used in offline communication in which Chinese was mostly used, in emails a Chinese monolingual mode was the least chosen mode. Additionally, Huang reported that CS was mostly prompted by topics such as movies, shopping, sports, computers and food.

In line with the above, Ho (2006) explored the bilingual practices of 21 tertiary students in Hong Kong when using ICQ – an IM computer program. Her analysis suggested that English and Chinese languages were used to supplement each other, and to empower the participants to deal with the pressure of instant interaction in synchronous CMC. Moreover, she found that English use was mostly related to technology and academic matters, whereas Chinese was linked with topics relating to cultural/social traditions. Hence, she suggested that the combination of both languages reflected the identity of the new generations in Hong Kong, whose culture has been shaped by the mixture of Chinese and Anglophone cultures.

ElSayed (2014) implemented an analytical study on the use of 60 Kuwaiti high-school students' CS over WhatsApp. The findings indicated that DMC is one of the significant sources of bilingualism. Many Kuwaitis use WhatsApp and CS is therefore very commonly used with varying degrees. The degree of CS can depend on numerous influences such as the language proficiency and basic language of interaction. In addition, other communicative factors such drawing attention. The findings showed that 60% of the WhatsApp chats include CS. Significantly, it was also explored that topic has appositive correlation with gender. For example, males code-switch more than females when chatting about personal issues and assignments while females code-switch more than males in some topics such as examinations and outdoor activities (ElSayed, 2014).

Another example by Nurhamidah (2017) who conducted a descriptive qualitative study in Singapore. The languages used are: Chinese, Malay, Tamil, and English. The study investigated the WhatsApp chats of e multilingual and bilingual communities in the country to shed light on the types of CS and their rationale. Most of the findings showed that CS was used intra-sententially evoked by some motivations such as religiosity, emotionality, the feeling of superiority, and self-identity (Nurhamidah, 2017). This study argued for an interrelation between CS and self-identity.

The findings from these two studies have relevance to and will be discussed in relation to the current study's findings in later sections. In sum, the main findings from the above studies are set out in the following table.

Study/findings	Formal interaction	Informal interaction	Offline language	Online language	Further Notes
Warschauer et al. (2002)	English (L2)	Romanised Egyptian Arabic			L1 for personal contents
Goldbarg (2009)	English (L2)	Spanish (L1)			L1 to show emotions
Huang (2004)	English (L2)		Chinese (L1)	English to create international & Internet identity	
Durham (2003)	English (L2)		Various	English	
Ho (2006)	English (L2)	Chinese (L1)		CS to empower interaction	
Nurhamidah (2017)				Chinese, Malay, Tamil & English	CS is for cultural sensitivity, showing emotions, superiority, ease of access & religiosity
ElSayed (2014)					CS between Arabic (L1) & English (L2) according to proficiency level. Gender differences found

Table 4 CS in DMC Studies

It can be concluded that English (second language) is a preferable code in formal interactions, while the L1 is the best for the expression of personal contents and emotions. However, from the summary, it can be seen that there is a dearth of knowledge about Saudi

bilinguals' use of DMC and whether there are differences in their CS patterns. It is apparent that the bulk of studies on CS in DMC have focused on a single DMC platform or genre, or compared the two, and only a few have provided a comparison of various/multiple DMC modes. As an illustration, Barasa's (2016) research focusses on 4 DMC modes, namely instant message chats, SMS text messages, email and social network site forums. MontesAlcala (2016) also assessed and compared information from three different DMC modes: email, blogs and social media. Hence this study seeks to understand the motivation behind the use of CS in DMC for Saudi bilinguals while focusing on a wide array of platforms. The issue of emotions as applied to CS in DMS is also investigated.

With these in mind, the next section discusses the issue of online identities and how it has a bearing on CS in DMC.

2.12.1 Online Identity

As posited by Goldbarg (2009: 1), "it is clear that electronic communication affords the user unprecedented control over self-presentation". In fact, virtual identity is related to one's self-growth in cyberspace, which can be completely different from a real-life identity (Yee & Bailenson, 2007). Additionally, it is worth mentioning that although the available literature has made limited comparisons between online and offline identities, it is assumed that online interaction is a safe environment for users to build connections with others as it uses a fully disembodied and anonymous mode (Nass & Moon, 2000; Zhao, 2005; Bhatti et al., 2020).

Tagg (2015) stated that since the Internet early beginnings in the 1990s, it was distinguished for its free space which allows its users to co-construct their personas. Also, online users enjoy "wearing online masks" (Tagg, 2015: 60), which enriches the relaxed atmosphere of many internet characteristics (Bechar-Israeli, 1995; Danet et al., 1997; Deumert, 2014). It was also widely assumed that anonymity can contribute to the "democratising effect" (Tagg, 2015: 60) of the internet, meaning that social differences such as gender and race are

less likely to be considered, meaning that participants can interact more equally (Graddol & Swann, 1989). As Sherry Turkle stated, "You don't have to worry about the slot other people put you in as much. They don't look at your body and make assumptions. They don't hear your accent and make assumptions. All they see are your words" (1995: 184). This quote exemplifies how anonymity brought about by the internet through options to create and own ghost accounts erases factors such as race, age and social status, which would normally inform people's assumptions about other speakers. This tends to equalise participants in a communication community and offset any biases that could have influenced how people produce meanings during conversations.

Findings from the literature emphasise that people often act differently online from offline. Wallace (1999: 239) stated that people may behave un-self-consciously when "they think no one can find out who they really are". This is because the degree of anonymity influences behaviours and may cause *de-individuation,* a coinage from Festinger et al. (1952), who used the term to describe the effect of a crowd or group on the behaviour of an individual. Festinger et al. claimed that, as a result of this restraint on an individual's usual behaviour, the individual becomes "able to indulge in forms of behaviour in which, when alone, they would not indulge" (1952: 382). Similarly, according to some DMC researchers, people interacting online may be de-individuated (Joinson, 1998). Furthermore, public self-awareness, i.e., the awareness of the public's evaluation of an individual, is "reduced as a result of interactions via DMC and can also lead to dis-inhibition" (1998: 51). The lack of public self-awareness is related to the fact that people are not being evaluated as they would be in face-to-face interaction, and thus they are more likely to display and express negative emotions towards each other (Calcut, 1999; Preece, 2000).

Thus, this study also seeks to understand the extent to which online Saudi bilingual communities, especially those that indulge in CS, may be affected by de-individuation and how

this may influence their utilisation of CS, particularly considering their traditional culture and the realities of online communication.

Another important concept that should be noted here is "glocalization", which was initially proposed by Robertson to describe "the universalisation of the particular and the particularisation of the universal" (1995: 32). This concept was later reviewed by Koutsogiannis and Mitsikopoulou (2004), who negotiated the relationship between the global networks and the local identities emerging online, with the local adopting features of the global by employing strategies to maintain their identity (ibid, 2004). This serves the hypothesis of this study because the internet users affect and are affected by the norms of the online community they belong to. Some of these norms are global which enable the users to understand and participate in groups out of their geographical borders.

Therefore, building an online identity is a collaborative process that takes place among users, involving how each one likes to behave and also how they like to be seen by others (Tagg, 2015). Thus, Bucholtz and Hall (2005) argued that identity should not be considered as a fixed character in someone's personality; rather, it is formed through the individual's immersion in social interactions. It is then suggested that the online space provides its users with dynamic techniques such as options to choose their names, upload and present their preferred profiles and bios, among other elements, to help them reconfigure their real identities and present themselves differently online (Tagg, 2015). Also, online spaces allow its users to examine some of the critical questions surrounding identity, gender and online experiences (Mainardi, 2020).

Regarding identity, it is worth mentioning that DMC users may often produce an innovative, humorous tone online by mixing lexis, syntax and punctuation, described by Burgess as a "vernacular creativity" (2006: 5). While this also happens in face-to-face interaction, DMC provides a contextualised situation in which this is more acceptable and

normalised. To buttress this premise, Jones (2012) described this innovation as a development of a person as well as a language. Similarly, Lewin-Jones (2015) proposed that this creativity (specifically on Facebook) is implemented for a serious purpose, identity construction, and how it forms "self-presentational and social goals" (cited in Thimm, 2008: 343). This concept supports Goffman's (1969) image of language users as theatre performers where tone can be heard; however, in online language, users show that tone through their conversational uses (Herring, 2007). Going back to the serious purpose, using humour online was discussed by researchers as an indication of certain social relations such as establishing and supporting friendship (Thurlow & Brown, 2003) and retaining social networks (Pennington & Hall, 2014).

In the DMC space, the norm is that members establish a virtual identity in order to adopt a specific online existence, building a new personality comprising a combination of physical features embodied by a virtual avatar (online image that represents the user in cyberspace) and a textual profile. This largely marks a departure from face-to-face interaction and significantly affects how individuals behave in everyday life. Considering the complexity of this creation with various choices to be made along the way, identity formation and self-presentation in virtual contexts may uncover perceptive tendencies (Parmentier & Rolland, 2009).

Moreover, it is crucial to understand virtual embodiment as social media users are greatly involved in online interactions, which establish an important element of everyday social life (Yee & Bailenson, 2007; Yee et al., 2010). Virtual embodiment is the perception of sensory feedback connected to an individual's virtual, non-physical body, and it is also known as an avatar. It has been proposed that when people build distinctive technological connections, this promotes the understanding of their selves and enhances their communication with others (Nass & Moon, 2000; Turkle, 1984, 1994). This is to say that virtual bodies may affect one's perceptions of the real world and one's own body. However, this may not necessarily translate

into a new identity but may only confirm the plasticity of human consciousness when traversing between real and virtual bodies.

It is worth noting that online identities go through complicated and dynamic series of personal decisions to be shaped and constantly changed. These decisions are influenced by social feedback and how each person reflects upon his self-representation (Turkle, 1995; Peris et al., 2002; Mahfouz et al., 2008). This decision making may be either conscious or merely intuitive and may also largely occur as part of social interaction. This study will bear this in mind, especially when discussing the participants' responses.

Another sociolinguistic aspect of DMC studied by researchers is politeness, defined by Brown (1980: 114) as "a special way of treating people, saying and doing things in such a way as to take into account the other person's feelings". Similarly, Das and Herring (2016: 53) also linked politeness with good behaviour, since politeness is, according to them, typically perceived as "the pragmatic application of good manners or etiquette". The politeness phenomenon has been widely scrutinised in DMC (Herring, 1994; Herring & Paolillo, 2006; Graham, 2007; Darics, 2010; Lam, 2011; Bella & Sifianou, 2012; Das & Herring, 2016).

Although this sociolinguistic notion has received great attention from researchers, there is still a lack of adequate work on politeness strategies in DMC (Herring, 2007; Locher, 2010; Shuang-Shung, 2010). Hence, this study will seek to understand how politeness strategies are employed by Saudi bilinguals engaging in CS in DMC. However, Yus (2001) suggested that the most positive feature of DMC is that all speakers' voices can be heard with clarity with no focus on the aspects of politeness that are examined in traditional spoken conversations such as overlapping speech and turn-taking. It may therefore be argued that to an extent, politeness tends to 'hide' true voices in face-to-face interactions. However, the micro concept of emotionality is involved in this study.

One key characteristic of DMC is that it is possible to record and retake the conversation. Nevertheless, emotions may be difficult to read due to the lack of visual communicative activities available in face-to-face communication, causing misunderstandings such as unintended negative impacts. Therefore, emoticons represent a valuable affordance to bridge that gap because they visualise textual messages through the screens, just as non-verbal body language does in face-to-face communication (Walther & D'Addario, 2001). This raises the question of how these online affordances or visual cues are interpreted by our brains. Are speaking patterns changing? Visual online affordances are familiarised and treated by the brain as non-verbal information by interlocutors, which means that we "read" them as part of emotional communication. And we can ask yet one more question: Does their use vary across different cultures?

Based on the above literature, and due to the complexity of emotions in DMC, this study will also investigate emotionality, particularly as it is applied in DMC by Saudi bilinguals. The next section will discuss the dynamics involved in turn-by-turn analysis as applied to CS in DMC.

2.13 Turn-by-turn Analysis

2.13.1 Online CS Frameworks

Crystal (2001) stated that the new forms of online communication have activated conceptual arguments such as the written and spoken language. Traditionally, language has been set into two categories: spoken or written. While written language tends towards abstraction, formality and structural complexity, spoken language is more dependent on informality, and it is structurally simpler. In DMC environments, one of the most noticeable characteristics of language is the overlapping of the spoken and written boundaries (Herring, 2001). Accordingly, written interaction in DMC environments, especially in synchronous

communication, is almost the same as in face-to-face communication. It is true that online chatting generally uses the written medium, but the language used is less accurate, less complicated, and less consistent than formal written language, making it more similar to speech (Danet & Herring, 2007). Crystal (2001) argued that many of the colloquial characteristics of speech such as phrasal replication, weaker sentence structure and the use of reaction signs (you know, you see) are available in the written production in synchronous communication in DMC contexts. According to Crystal (2001), users tend to make language simple to fulfil the requirements of interactive communication.

In terms of frameworks, researchers have so far not used a single framework for CS analysis in DMC, but rather they combine different approaches because there is no method designed specifically for CS in DMC. Thus, researchers generally use the frameworks developed for the analysis of spoken discourse, although some have pointed out the inadequacy of such frameworks (Hinrichs, 2006; Leppänen & Peuronen, 2011). For this reason, this study combines different frameworks for analysis.

It is noteworthy that recently researchers have referred to the "three most influential contributions to theory in the sociolinguistic branch of CS studies" (Hinrichs 2006: 28). The first of these was by Gumperz (1982), who distinguished between situational and metaphorical CS, the distinction between the "we-code" and "they-code". He classified discourse functions into conversational CS, and introduced the notion of CS as a contextualisation cue. Second was Myers-Scotton's Markedness model (1993). In this, she highlighted concepts of CS as a marked (i.e., unexpected, unconventional) or unmarked (expected) choice. The third main contribution was the conversation-analytic framework for the study of bilingual interaction by Auer (1995, 1998b, 1999) which built upon and developed some of Gumperz's ideas. Moreover, other researchers repeatedly used notions to mark the syntactic distinction between

inter- and intra-sentential CS – perceptions from pragmatics such as interpersonal alignment and face (Georgakopoulou, 1997).

In terms of the discourse functions of CS, the models by Gumperz (1982) and Auer (1995, 1998b, 1999) are widely used in the literature, e.g., by Androutsopoulos (2006a, 2007a), Sebba (2003), Androutsopoulos and Hinnenkamp (2001) and Paolillo (1996). Both models consider CS as a contextualisation cue such as when participants employ these sources in order to perceive a speech. To be more specific, Gumperz's classifications included functions mentioned previously in section 2.5: such as addressee specification and expressivity. Moreover, it is fundamental for Auer (1995) to distinguish between participant and discourse-related CS (discussed in section 5.5). The first includes switches that suit the speaker's or addressee's preferences, as well as cases of language negotiation between speakers. The latter (discourse-related switching), on the other hand, "contributes to the organization of discourse in that particular episode" (1995: 125). Thus, Auer's subcategories are partially similar to those by Gumperz.

It is also crucial to consider the conversational analytic (CA) approach to CS. This was proposed by Auer (1984) where he suggested three fundamental aspects that should be included in the analysis of CS. These comprise the balance between social structure and the conversational structure, relevance and procedural consequentiality. He argued that this approach serves "*members* procedures to arrive at local interpretations" (1984a: 3, original italics). He considered that CS was a significant social behaviour and that it should be linked expressively to the participants. Nevertheless, Stroud (1998) criticised approaches to CS that mainly relied on CA. He proposed that excluding ethnographic or macro-sociological elements in CA cannot offer adequate analysis of language behaviour in non-Western settings. Stroud (1998: 322) stated, "[L]anguage use and patterns of code-switching both structure and are structured by indigenous cultural practices". This is because if researchers disregard cultural

backgrounds unknown to them within conversation analysis, their evaluation is incomplete as it ignores vital functions and pragmatics. Stroud (1998: 322) indicated, "my argument is that conversational code-switching is so heavily implicated in social life that it cannot really be understood apart from an understanding of social phenomena". Consequently, it would be ideal to investigate how the Saudi social realities impact on Saudi bilinguals' CS, especially in DMC.

However, the drawbacks of a CA approach to DMC data are well mentioned in the DMC literature (e.g., Beißwenger, 2008; Herring, 1999). DMC technologies exclude one key device of conversational organization, the turn-taking system, due to the lack of visual channels, or (in asynchronous DMC) the sequential gap between contributions. In other words, some important dimensions of the interactional co-construction of meaning are changed or limited. Yet, these limitations do not rule out the sequential organisation of DMC, which can be studied with CA types. Furthermore, DMC research has demonstrated that users create procedures to manage these restrictions, including the usage of specific turn-taking signals and non-linguistic cues such as emojis and acronyms such as Laugh Out Loud (LOL).

However, it can be argued that the analysis of turn-taking is not easily applicable to DMC, particularly in asynchronous DMC, because a single turn can include multiple messages, which may be problematic for comparing turns (Baym, 1996). Similarly, synchronous post may consist less than a turn, so a participant may send a message longer than one turn (Lunsford, 1996; Murray, 1989), especially with chat systems that have a restricted number of characters per chat such as Twitter. Yet, Herring (1999: 8) suggested that:

> in order to retain the floor through an extended turn, therefore, some synchronous CMD users have innovated floor holding conventions, for example appending a special character at what might otherwise appear to be a turn-completion point to indicate that the turn is not yet finished.

Related to this is Georgakopoulou's (1997: 158) suggestion that the absence of usual contextualisation cues due to the lack of the visual channel "results in an increased reliance on code-centred contextualisation cuing, which would be otherwise delegated to different signals".

In other words, DMC interlocutors use CS, style changing, and other manipulations of written signs to achieve functional act which can be fulfilled by phonological tone and other cues in offline spoken conversation. This facilitates turn-taking in DMC, albeit in a manner different from that involved in face-to-face interaction.

This evidences a dynamic theoretical relation between linguistic codes, communicative practices and media privileges. These are the features of an essential theoretical vocabulary, which DMC researchers prefer, form and apply in different ways. For example, Hinrichs (2006) merged concepts from all three frameworks with types from Creole linguistics. Leppänen (2007) used the four types of language alternation in Auer's framework (i.e., insertional switching, insertional mixing, alternational switching and alternational mixing) to study alternation between Finnish and English in a variety of digital genres. Androutsopoulos (2006, 2007) described the discussion thread of web forums as the equivalent of a conversational episode to establish the base language of discussion (Auer, 2000), against which the directionality of switches was investigated.

Although DMC is a fertile environment for CS, unfortunately researchers have not paid enough attention to data collection and analysis approaches (Hinrichs, 2006; Dorleijn & Nortier, 2009; Androutsopoulos, 2013). Hinrichs (2006) conducted a wide study on CS where he applied the most influential CS frameworks to the functions and motivations of CS and how these led Jamaicans to alternate between English and Jamaican Creole (Patois). He focused on personal emails and social online interactions as the DMC genres. Hinrichs' main finding was that English was used as the L1, while Jamaican Creole was inserted for particular functions such as showing membership of a group or emphasising a point. A key point in his study was that CS models based on spoken language are not always applicable to CS in DMC. To illustrate, his data contrasted with Gumperz's (1982) conversational analytic model in which

language is strongly related to group identity, because in his point of view "features of written language in DMC and spoken language are distinct" (Hinrichs, 2006: 29).

Similarly, Dorleijn and Nortier (2009) investigated CS in DMC and they focused on the feasibility of using DMC data for the analysis of CS. They pointed out that the study's findings could not be generalised because each study's conclusions are exclusive to the specific language and participants involved in that study. For instance, the essential motivations found in their studies on CS between Moroccan and Dutch participants were style and identity, while in another CS study of theirs – between Turkish and Dutch – it was syntactical harmony. It is thus this study's focus to identify the motivations for CS in Saudi bilinguals, particularly in the context of DMC, considering that it is largely an understudied phenomenon.

It is important to examine the contribution of Androutsopoulos (2013), who discussed CS patterns and styles in DMC contexts, and compared spoken and written CS. His contribution summarised his studies on CS in DMC from 1996 to 2009 and he focused on various CS types, genres and languages. His findings clearly revealed a gap in CS across different DMC genres. According to Androutsopoulos (2013: 5), CS cannot be inclusive due to the massive DMC affordable space: "be it unidirectional or interactive, synchronous or asynchronous, dyadic or public, private or professional". Consequently, researchers in one way or another have found it problematic and inadequate to apply offline language analysis approaches to DMC and they have called for a considerable framework specifically designed for it which is fundamental. Hence this study seeks to apply online language analysis while still harnessing the practical aspects of offline analysis and applying them where necessary.

The next section addresses the complexities posed by spoken CS in contrast to online written CS. It seeks to show the inherent contrasts between them and how online written CS is a unique form.

2.13.2 Spoken vs. Online Written CS

To begin with, there is a lingering question over the best source of CS data and the best way to compare them with data from online CS. As previously mentioned, researchers have used the spoken language as a reliable approach for their studies, but it has drawbacks, as presented by Dorleijn and Nortier (2009). They argue that contrary to the common sociolinguistic assumption that CS data are more valid when they are spontaneous and unintended, spontaneity should not be the only variable that counts. This leads to another question about the spontaneity of written CS compared to that of spoken CS.

Similarly, Androutsopoulos (2013: 668) proposed another drawback in spoken versus written CS when he stated "[t]he correspondence of online written CS to its offline spoken counterpart is a common concern, but also a contested issue". In addition, Spitzmüller rejected the idea of comparing DMC to spoken language by declaring that "prima facie similarities between [DMC] and [spoken language] communication are functionally not similar at all" (2006: 33). In addition, Hinrichs (2006) claimed that despite the fact that DMC tends to sound similar to spoken language, it is a written text and is therefore distinct from both offline written and spoken language.

Recently, a different perception of CS has developed with regard to DMC due to the spread of the internet. This perception shows that DMC is sensitive to a complex mix of technical and situational factors (Baym, 1995; Cherny, 1999; Herring, 1996). Consequently, research has begun to describe the linguistic features of each DMC genre individually. For example, the real-time text messaging/the Internet Relay Chat (IRC) shows that each genre and "mode" (Murray, 1988) has its specific features and should be dealt with as technologically defined DMC subtypes, rather than being referred to generally as DMC (Herring, 2002). However, the genre and mode approaches are limited as a foundation for DMC categorisation

as the notion of genre can hypothetically be applicable to communication with different degrees of specificity (Maingeneau, 1998), which is vague. For instance, what is the appropriate level of genre classification for "email discussion lists" or "academic discussion lists" (cf. Grüber, 2000). Moreover, the mode approach partially adopts this vagueness, because it refers mainly to technologically defined DMC types, yet it ignores social differences (Grüber, 2000; Herring, 1996).

Another drawback shared by both approaches is that although they may be easily applicable to the categorisation of established and common technological platforms (Swales, 1990) such as well-known online platforms, they cannot be easily applied to the categorisation of emergent forms of DMC or discourse within restricted weblogs (e.g., educational, governmental, organisational domains). Hence, a more adaptable classification system is needed. Analysts of DMC also call for a system that combines the properties of DMC mode characterisation, and novel DMC situations. The urgency of these appeals is compounded by the rapid pace of evolution of new technologies that new DMC is linked to (Herring, 2004b).

In terms of methodologies applied in the studies of CS in DMC, Androutsopoulos (2013: 668) argues that "a generally accepted methodology that takes the specifics of DMC into account has not yet been developed". However instead of using one single framework for the CS analysis, researchers use a range of different approaches, methods of analysis and perspectives in the process. This makes the process adaptable.

Some researchers such as Herring (2001, 2004a) have proposed a continuum where asynchronous DMC represents the writing aspect, and synchronous DMC represents the speaking aspect. The computer-mediated discourse (CMD) approach consists of the CMD categorization scheme as a main component developed by Herring (2001, 2004a). This will be thoroughly discussed in the methodology chapter as it is the framework implemented in the current project. The main purpose of the CMD scheme is to "articulate aspects of context –

both technical and social – that potentially influence discourse usage in DMC environments, and thereby to bring them to the conscious attention of the researcher" (Herring, 2007: 1). It is assumed that CMD is influenced by two main factors: the medium (technological) and the situation (social) (2007:1). As explained by Herring:

> Once a sample or corpus of CMD has been identified, the researcher goes through the categories for each set, assigning the appropriate value for each category based on the information available to him or her from the data, additional contextual knowledge he or she may possess, or general knowledge of CMC. One or more categories may not be applicable to a particular CMD sample, in which case no value is assigned for them (2007: 12).

Therefore, first of all, as we have illustrated above, the frameworks originally developed for the analysis of spoken discourse are often relied on and applied, despite the criticism regarding their questionable adequacy for this mode (Androutsopoulos, 2013: 668; Hinrichs 2006: 28-30). Related to this, it is argued by Leppänen and Peuronen (2011) that the switch of frameworks created for investigating spoken interaction to the study of written multilingual DMC is not sufficiently problematized. However, the limitations of using a conversation-analytic approach for analysing DMC data are well discussed in the DMC research literature (e.g., Androutsopoulos, 2013; Hinrichs, 2006; Herring, 1999). Taking the specifics of DMC data into account, e.g., the online setting as well as their restrictions and limitations, Androutsopoulos (2013: 670) argues that:

> CMC technologies rule out one key mechanism of conversational organization, the turn-taking system; more generally, the lack of visual channels – and, in asynchronous CMC, the temporal gap between contributions – means that important dimensions of the interactional co-construction of meaning are altered or restricted.

These restrictions, however, do not apply to the sequential organisation of CMD, which can be studied with conversation-analytic categories (Androutsopoulos, 2013). In addition, DMC research shows that in order to cope with these limitations, users have to devise alternative and rather creative ways to compensate the absence of contextualization cues which is caused by the lack of the visual channel such as emoticons, smileys, memes, graphical images in formats (GIF) and other symbols. Related to this, Androutsopoulos (2013: 670)

points out that “CMC interlocutors use codeswitching, style-shifting, and other manipulations of written signs in order to accomplish pragmatic work that would be accomplished by phonological variation, prosody, gaze, posture, and other cues in ordinary spoken conversation”. This provides a basis for establishing a theoretical link between linguistic choices, communicative practices and media affordances.

Secondly, with regard to a broad distinction between qualitative and quantitative methods of analysis, qualitative methods (including methods from conversation, discourse, narrative or style analysis) have been used for the study of both conversational and non-conversational CMD (Androutsopoulos & Hinnenkamp, 2001; Tsaliki, 2003; Hinnenkamp, 2008; Georgakopoulou, 1997, 2004; McClure, 2001; Sebba, 2003; Androutsopoulos, 2004; Leppänen, 2007; Leppänen et al., 2009). On the other hand, quantitative methods have relied on quantifications of questionnaire data (Goldbarg, 2009; Tsiplakou, 2009) or the coding of textual data (Paolillo 2001; Siebenhaar 2008), among others (Warschauer et al., 2007; Lee, 2007). Alternatively, mixed-method approaches to CS in DMC have also been frequently used (Paolilo, 1996, 2011; Androutsopoulos & Ziegler, 2004; Siebenhaar, 2006, 2008; Hinrichs, 2006; Tsiplakou, 2009; Sperlich, 2005; Androutsopoulos, 2006). Herring also proposes a reconceptualization that includes communication generated through graphical phenomena such as avatars and emojis in virtual realities, including those by certain robots. Herring further argues that the principles at the core of the CDM paradigm apply equally to the interaction in these non-textual modes.

2.14 Conclusion

In conclusion, it is fundamental to highlight that this study embraces both approaches; CS and TL for a more inclusive outcome because, as discussed in this chapter, each approach has both positive aspects and limitations for the purpose of this study. CS will be used via a TL

lens to include all linguistic and non-linguistic practices with respect to the entities and boundaries of languages, varieties and multimodality because they present vehicles of communication and they are employed purposefully.

In addition, there is a need to pay increased attention to the language choices of non-native speakers in countries where the history of English is recent and English is largely used as a foreign language (EFL). It is worth noting that despite being used as a lingua franca on the Internet, the latter is mostly used by non-native English speakers (Danet & Herring, 2007a: abstract). On the contrary, English-based scholarly literature on CS in DMC does not truly reflect this diversity, and consequently, studies related to Saudi bilinguals are relatively under-represented in the field. CS is a subject covering a wide range of interrelations between medium and situational factors. Androutsopoulos (2013: 667) shows the extent of its significance by stating explicitly that "CS in CMC is relevant not only because it is there (and not yet well understood) but also for the insights it can offer to pragmatics, sociolinguistics, and discourse studies".

Based on early CS studies but with a more focused shift towards CS in DMC amongst Saudi bilinguals, this study intends to fill a significant gap in scholarly knowledge about the online/written CS practices of Saudis in various contexts. Consequently, the study focuses on language choice, practices and emotions, among other CS usages. In addition, the context of the current study presents on a small scale a conservative society that is deeply rooted and interrelated with several cultural factors such as religion, taboos and traditions, which shape and influence the participants' interactions and cannot be isolated.

This study aims to provide a unique insight into the interactive sociolinguistic world of social networking. By capturing live, real-time interaction (posts of participants) on social media sites, specifically WhatsApp and Twitter, the study focuses on the interrelation between participants and language through a technological medium. It focuses on how individuals use

the innovative linguistic features afforded by online platforms to communicate using a mixed-method approach. With social networking becoming an integral part of our communicative lives, it seems imperative that we understand the interaction that occurs on such mediums.

The analytical chapters examine code-switched passages in order to assess the mechanisms through which CS portrays meaning. In this regard, Gumperz (1982: 72) claims that "what we need are detailed investigations of speakers' use of CS strategies, in actual conversational exchanges, to show that they exhibit some form of linguistic patterning that they contribute to the interpretation of constituent messages". Consequently, for all the above-cited reasons, the study presents a first comprehensive and in-depth analysis of this nature on Saudi Arabic-English CS in DMC.

Chapter 3: Methodology

3.1 Introduction

The main aim of my study is to understand how Saudi bilinguals engage in CS using online platforms such as Twitter and WhatsApp. The aspects covered in this chapter include the philosophical approach, the research strategy, the study context, the case study approach, the data collection methods and the participants. It also discusses the ethics followed during the study.

3.2 Research Philosophical Approach

Research philosophy is defined as "systems of beliefs and assumptions about the development of knowledge" (Saunders et al., 2016: 150). It is essential to consider the philosophical approach since research is about increasing knowledge and due to its influence on the type of data collection tools and analysis (Gray, 2013). There are two main categories of philosophical assumptions: ontology and epistemology.

3.2.1. Ontology

Cassell defines ontology as "the philosophical study of being, existence and reality…" (2015: 10). Ontology is about "what is there that can be known?" and/or "what is the nature of reality?" (Guba & Lincoln, 1989: 83). It is how one views the world as it really is (Gerring, 2004). Bryman and Bell (2015) identify two main ontological positions, namely objectivism and constructionism.

Objectivism, which some scholars (such as Raddon, 2010) call realism, "implies that social phenomena confront us as external facts beyond our reach or influences" (Bryman & Bell, 2015: 32). Those who adopt this position believe of one reality and that there is one single truth for each phenomenon (Johnson & Duberley, 2000). Thus, researchers think that the reality is there and their only mission is exploring it.

On the other hand, ***Constructionism,*** some scholars such as (Guba & Lincoln, 1989; Saunders et al., 2016), identify it as subjectivism. Those who adopt this notion believe that realities such as culture exist independent of researchers (Bryman & Bell, 2015). Social constructivists think that realities do not exist independent of themselves but are "artificial creations that come into existence through our talk or discourse" (Cassell, 2015:10). For example, the interviews are seen as co-creating the text and not "an account of any real-world phenomenon". Additionally, the constructionists are interested in meaningful reality because it is constructed by people as they communicate with their surrounding contexts which creates the meaningful reality (Ahmed, 2008). Constructionists unlike the objectivists, argue that there is "no true or valid interpretation and that there is no 'pure' data as all data are mediated by our own reasoning as well as that of participants" (Johnson & Duberley, 2000: 59). This notion allows participants-researcher's interrelation where participants can tell their stories (Baxter & Jack, 2008).

This study applies the constructionism ontology. The sociolinguistic practice under this study, i.e., how bilingual Saudis engage in CS using online media platforms such as WhatsApp and Twitter, is constructed by the actions and insights of the social actors— in this context are the bilingual Saudi interacting online— involved with their online existence. Hence, as a researcher, I communicated—via interviews— with the social actors to understand this practice. During interviews, participants were telling their 'stories' which facilitated

understanding their sociolinguistic behaviours as well as how they engage in CS using online media platforms.

3.2.2. Epistemology

Epistemology is a philosophical branch concerned with the study of knowledge. It is involved with establishing standards for deciding what constitutes acceptable scientific knowledge (Cassell, 2015) and how that information might be attained (Crotty, 2003; Raddon, 2010). The major question in epistemology, according to Bryman and Bell (2015), is whether scholars should examine the social sciences using the same ideas and methods. The two main types of epistemologies are positivism and interpretivism.

Positivism is concerned with the natural sciences principle that focuses on human beings and considers them as animals or objects (Cassell, 2015; Bryman & Bell, 2015). The positivism epistemological approach adopts an objectivist or realist ontological approach that deals with facts as facts. This type argues that reality occurs regardless of people's knowledge (Lee, 1991; Crotty, 1998). Consequently, the positivism epistemology claims "that the social world consists of concrete and unchangeable reality which can be quantified objectively" (Rahman, 2016: 102). This type of research is concerned with "how and why things happen" (Raddon, 2010: n.p.), thus the focus is on causes and effect relationship (Johnson & Durberley, 2000).

Moreover, positivism aims to state assumptions for the social world occurrences that may occur in the future due to some interferences and variables (Ahmed, 2008). For example, studying correlations and measurements (Burrell & Morgan, 1979; Artioli et al., 2017) implementing quantitative methods such as structured interviews and experiments (Gray, 2013) based on hypotheses and theories in which the results are considered as facts and reliable for generalisations (Johnson & Duberley, 2000).

Thus, the role of positivism researchers is passive and they are considered as outsiders since positivism's aim is finding objective knowledge (Fitzgerald & Howcroft, 1998), which requires rigid relationship between the subject and researcher (Dudovskiy, 2017).

Interpretivism argues that the social world's is the main subject "people, and the physical and social artefacts that they create, are fundamentally different from the physical reality examined in the natural science" (Lee, 1991: 374). It aims at gaining subjective knowledge (Raddon, 2010). Hence, the interpretivists implement the subjective ontology which considers reality a social contribution by individuals when interacting with each other and their contexts (Marcon & Gopal, 2005; Gray, 2013). Also, the approach argues that reality is not fixed but rather multiple realities that change according to the surrounding variables (Bharadwaj, 1996).

While the positivists' aim is justifying "how and why things happen", the interpretivists' aim is understanding "how and why things happen" (Raddon, 2010: n.p.), through the use of different methods such as in-depth interviews and observations to disclose different aspects of the topic (Raddon, 2010).

Moreover, the researcher and participants mutually build knowledge and meaning through interacting about the topic (Trauth & Jessup, 2000), meaning that the researcher is enabled to capture the different insights such as emotions during the interaction (Smith & Elger, 2014). Also, the researcher may participate and become an insider in the research, by, for example, observing participant to thoroughly understand the topic. However, it is important to point that the participating researcher must set aside their emotions and knowledge of the topic to gain objective experiences (Gray, 2013).

As discussed, interpretivism may use qualitative methods such as in-depth interviews which allow deep understanding of the topic holistically (Artioli et al., 2017). It also guides the

theory (Crowe et al., 2011), which is gained through data analysis (Dudovskiy, 2017). Nevertheless, the findings of interpretivist studies cannot be generalized but are rather reliable only for the context being studied (Trauth & Jessup 2000; King & Horrocks, 2010).

Relatedly, this study implemented interpretivist epistemology to facilitate understanding the topic from the perceptions of the participants. Thus, to understand how bilingual Saudis engage in CS using online media platforms, no pre-assumed options were given to the participants which is common in positivism. Embracing interpretivism enables participants to share their experiences. Additionally, my study investigates the empowerment of DMC and participants on each other which is a concept that is experienced differently by different people hence interpretivism is more appropriate. In other words, the approach allowed me to develop understanding of the multiple realities based on how individuals interpret situations and meanings.

In addition, the approach enables themes to emerge during data analysis. This causes the framework to be created at the end of the analysis to ensure it complies with all data. The use of interpretivism eases producing data that broadens our understanding of how bilingual Saudis engage in CS using online media platforms. It is true that the results of this study are valid, yet they are not generalized because their validity is limited to the context and reasons it is studied for. In addition to other ways, this was accomplished through the use of open-ended questions and interviews as described in a later section. In summary, in terms of ontology and epistemology, this study implements constructionism and interpretivism respectively.

This project is situated in the field of sociolinguistics and it focuses on the inter-relation between two elements: first, the CS between English and Arabic practices that Saudi bilinguals use in their online interactions; and second, how these bilinguals employ online resources to communicate through a variety of online platforms (specifically Twitter and WhatsApp). This

project looks beyond language and considers the multimodality that interlocutors employ in their online interactions for the purpose of communication. Multimodality can be understood through the description of modes as "cultural technologies for making meaning visible or tangible" (Domingo et al., 2014: 4). Thus, multimodality includes all means; visual and audio affordances provided by the online platforms that facilitate communication. The objectives of this study are to gain a unique insight into the interactive sociolinguistic world of bilingual Saudis' DMC habits, to build on existing knowledge by analysing the linguistic features (multimodal online affordances) and social behaviours of the participants, to present Arabic data in a systematic way, and to explore what Arabic may add to or how it may challenge the current frameworks/knowledge of CS on online platforms.

This study investigates the people using online affordances and CS as tools to enhance their communication. Thus, this project is exploratory; according to Stebbins, research "is not finished until everything of importance for describing and understanding the area under study has been discovered" (2011: 9). Accordingly, this project embraces data-driven methodology where data (small segments) create the big picture through a bottom-up approach.

In other words, this study aims to explore for discovery, so it should be as open and systematic as possible. Stebbins (2011) believes that in order to explore effectively, the researcher needs to follow two directions: flexibility in searching for data and open-mindedness about where to find it. Hence, this project uses different layers of data collection methods and analysis, as will be discussed thoroughly later in this chapter. Since this project focuses on sociolinguistics on technological channels and technology changes rapidly, the exploratory approach is the most suitable for documenting the growth of usage and the development of users through such online channels. Thus, the following research questions reflect the exploratory nature of the study:

- What CS practices emerge in online communication by Saudi bilinguals? For what reasons?
- How do the participants employ online interaction to fulfill their social purposes?

3.3 The Affordances of the Online Platforms Under Study (Twitter & WhatsApp)

Twitter

It is important to define Twitter, it is a microblogging social network platform that enables its users to post messages, called tweets. Tweets are short messages, restricted to 280 characters in length including letters, punctuation, emojis, hashtags, mentions and spaces. This social networking platform provides several affordances to its users for the purpose of participation and communication. First, Twitter's personal expression affordances refer to the properties the users can use to create their accounts and posts, such as how the user sets a profile photo that he/she chooses to distinguish their accounts and to be displayed to other users. 'Bio' stands for the short biographical profile of someone. In other words, users pick photos and short descriptions to represent themselves to other users as an introductory phrase. Some demographics can optionally be seen by others like the date and place of their birth. Users can tweet through a text, or post an image, picture, GIF, video or emoji.

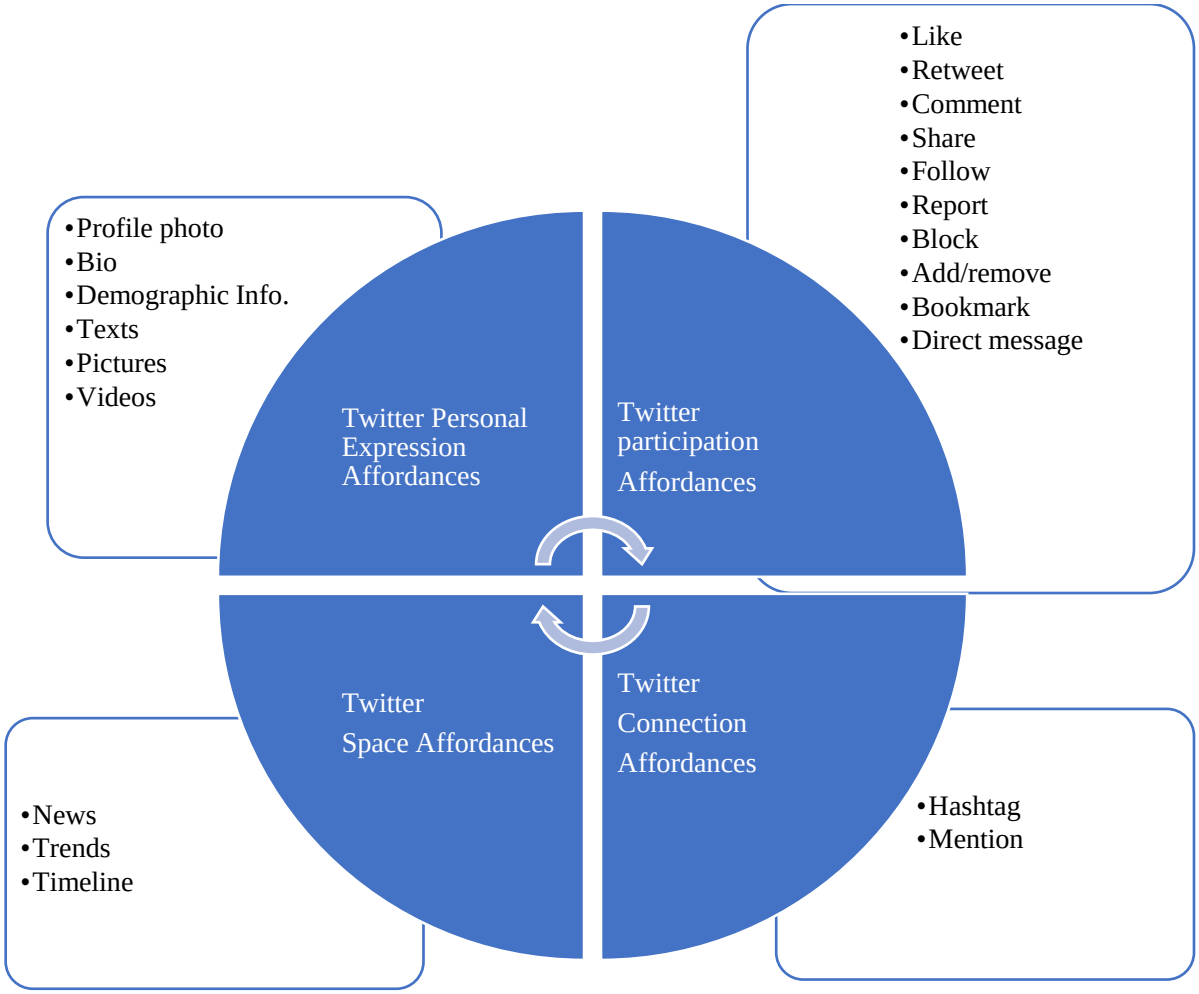
Second, there are several participation affordances. There is the 'like' option, which requires the user to press a heart button to show their approval of their own or someone else's post; this automatically creates a list of favourite posts. The retweet button 🔁 is used to repeat a specific tweet (with the original tweeter's name) as a reference or a quote to show that the user adopts its position and it appears in the user's page to their followers. Also, there is an option to reply by responding publicly to a certain tweet. There are further options like sharing a specific post via different online platforms like WhatsApp or Snapchat. Twitter enables its users to follow each other's public accounts and even private ones by sending a notification to the account owner. Moreover, a user can add topics of interest, and remove or block others. A

user can report some posts that, for example, display sensitive or inappropriate contents. The bookmark affordance enables users to create their own stories by adding posts. Finally, there is the direct message option ✉, which enables the user to send a private message to another user, unless that user has deactivated that affordance.

Twitter space affordances are also options that enable users to widen their participation to broader audiences. For example, users can participate in a trending topic that is shared by more users than followers. Moreover, the timeline of each user shows the updates of each one's tweets he/she follows so as soon as these people post something it appears at the top of the user's account. The news that each user is interested in and that has been selected by the user also appears in the home page.

Twitter connection affordances also enable users to engage with other users. For example, the option of hashtag # facilitates posting under specific trending topics that can be seen by all interested users. Usually, hashtags are used to mark topics. This is primarily done to increase the visibility of their tweets. Also, there is the 'mention' option, which allows the user to refer to other users by his/her username after the mention symbol: @ (LSM, 2011).

Figure 1 Twitter Properties



WhatsApp

For the personal expression affordances, the user creates an account with the option of adding a photo for the profile and his/her name, a nickname or a saying that can be seen by the other users. WhatsApp is a closed, end-to-end encrypted and private online chatting platform. The user can post an unlimited text, including characters, punctuations and emojis in one chat. Sending and receiving saved photos, videos or taking immediate photos are also WhatsApp affordances. WhatsApp allows a unique affordance that is not available on Twitter, which is recording an audio message and listening to it before sending it.

For the participation affordances, WhatsApp has been updating its properties, which now include: copying messages, forwarding the messages to other users in the same application only, and replying to a specific message so that the user cannot miss the flow of the conversation. The reply option can be for a specific message in private or group chats or even for replying privately to a message that is sent in a group chat. In addition, users can block contacts so they do not receive calls or messages. The star option is to favourite a specific audio or visual message and to save it in the starred messages where the user can find it easily. One of the useful affordances that has been added recently is the delete option where the user can delete a sent message after sending it, within a specific period. Moreover, one of the WhatsApp affordances is that the user can make either audio or video calls. Finally, there is the option of creating groups. Users use them to gather specific communities, which makes communication easier amongst many members.

Therefore, WhatsApp is considered different from Twitter in the nature of its communication: WhatsApp is for private chatting while Twitter is for public posting. Thus, for the data analysis in the current study and according to Tagg and Drasovean (2015), Twitter data is considered (monogloss = non-dialogic) because tweeters do not usually expect replies, yet it is possible to receive and send responses. On the other hand, WhatsApp data are hetergloss = dialogic.

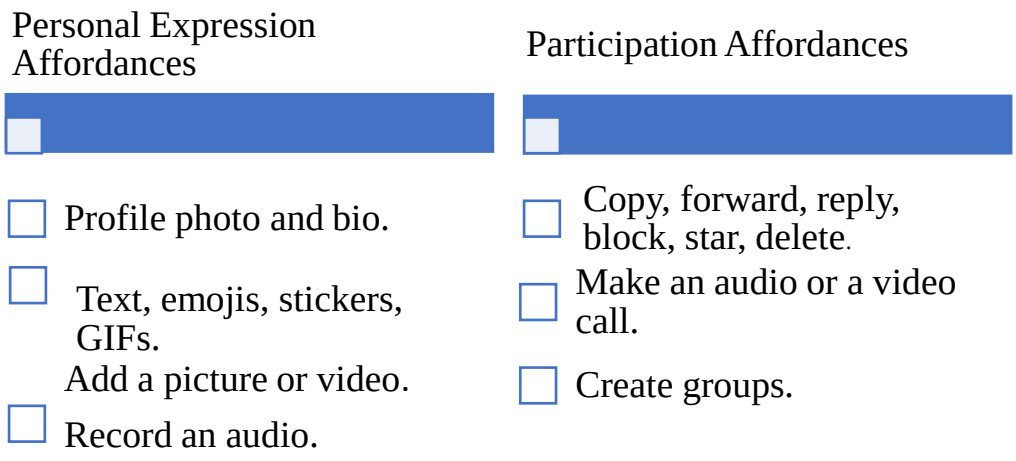


Figure 2 WhatsApp Properties

3.4 Methodology

This study embraces a constructivist and interpretivist approach because it aims to explore and understand the experiences from the point of view of the individuals (online users). This approach requires the researchers to understand the subject under study by interpreting the perceptions of individuals. Thus, referring to the current study's objectives, meaning is embodied in the language and actions of social actors. To clarify, in this research, "reality is perception" (Guba & Lincoln, 1994: 110), based on a constructivism theory where reality is constructed by individuals' views of their contexts and create a world of multiple constructed realities (Spivey, 1996). In addition, this study follows an interpretivist paradigm where reality can be understood through "the world of human experiences" (Cohen & Manion, 1994: 36). This is due to the fact that, unlike research in the natural sciences, studying people and their actions requires a different logic that reflects the uniqueness of human behaviour (Bryman, 2016). Therefore, an interpretivist/constructivist researcher seeks to understand people's thoughts and actions according to their views (Bogdan & Tylor, 1975). In this research, these 'people' are bilingual Saudis engaged in CS using online media platforms.

It is worth mentioning that the current study espouses the recent shift in focus in DMC

research since previous technology-driven DMC research has focused on the classification and description of the various modes, such as IM, virtual worlds and email (Werry, 1996). Nonetheless, more recent DMC researchers (e.g., Androutsopoulos, 2006) have transferred the foci towards identifying the empowerment of users as collaborative creators of internet content. This latter point of view shows online language as more than just technology; it highlights how users take advantage of it. There are some studies focusing on users rather than technology, such as that by Lee (2014), who investigated how different platforms are involved in Hongkongers' lives, and Leppänen et al.'s (2014) exploration of how Finns disclose online identities and memberships.

Since the current study deals with participants' experiences and the sociolinguistic aspects related with their experiences, it is relevant to point out Kozinet's term, "netnography", to describe ethnographic research (the study of people) online, or virtual ethnography, as:

> ethnography conducted on the Internet; a qualitative, interpretive research methodology that adapts the traditional, in-person ethnographic research techniques of anthropology to the study of online cultures and communities formed through computer-mediated communications (2006: 135).

The above description perfectly matches the core of the current study's aim. From this definition and particularly the word "formed", it is assumed that there is no one fixed reality, but rather multiple realities (Bryman, 2016). This is also known as relativism and it is expected to contribute to our understanding of how meaning (reality) is created by individuals within different contexts. Consequently, the epistemological approach of the current study is inductive in that the researcher builds abstractions, concepts, hypotheses, and theories from details (Atieno, 2009) and the researcher has an insider's perspective – an emic stance (Pike, 1967) – on the research (participant-researcher). This provides an in-depth view of the online interaction norms (habits and etiquettes) and the personal relationship between the researcher and the participants (on both platforms, Twitter and WhatsApp).

Ratner (2002) argued that subjectivity dictates the whole process from choosing the topic of study, to how we consider reality, to choosing methods, and analysing data. In line with this conceptualisation, this project is qualitative, which means that it is concerned primarily with process, rather than with outcomes or products. Thus, I am interested in exploring how people make sense of their lives and experiences through an exploratory research design to expand the richness of data-driven findings. In addition, it is descriptive due to exploration of meanings and knowledge expanded from words and pictures. Consequently, the aim is to obtain a deep understanding, not to generalise or justify.

3.5. Research Strategy

This is a mixed methods study involving both quantitative and qualitative research strategies and these are discussed below.

3.5.1. Quantitative research strategy

Quantitative research involves quantification of both data collection and analysis (Leedy, 1993; Bryman, 2012; Hussein, 2015). This strategy aims for the statistical patterns and quantity in the data. Thus, the common research questions in this type of studies are about quantity such as "how many, how much, to what extent" (Rahman 2016: 105). Hence, quantitative research employs numerical data collection methods such as questionnaires or structured interviews (*Research Methodology*, 2018; USC Libraries, 2018) because the aim is testing theories hence the strategy embraces a deductive approach to develop hypotheses (Gray, 2013). Quantitative strategy follows the principles of the natural sciences, especially positivism (which was described above). Also, it claims that social reality is objective hence adopting objectivism ontology (*Research Methodology*, 2018). Some of the quantitative research's aims are validity and causality, hence studying its causes and not description of how things are relying on representative sample (Leedy, 1993; Ivankova & Creswell, 2006).

Furthermore, the use of controlled instruments to the participants through structured interviews and experiments creates a limitation to the relation between research and everyday life (Bryman & Bell, 2015). Also, these tools may reflect the researchers' perception of the subject and not that of the participants (USC Libraries, 2018). Another disadvantage is the focus on the relationship between variables which suggests that social life is inactive and independent of individuals' lives (Blumer, 1956 as cited by Bryman & Bell, 2015) "we do not know how what appears to be a relationship between two or more variables has been produced by the people to whom it applies" (Bryman & Bell, 2015:170). In addition, the quantitative research strategy implies that the research does not exist in the natural environment (USC Libraries, 2018). Thus, the quantitative part in this study is only the representation of the frequency of the patterns.

3.5.2. Qualitative Research Strategy

Mack et al. (2005) identified qualitative research as a type of research which is conducted to understand the research phenomena from individuals' worlds and insights. Attieno (2009) described qualitative research as interpretive and anthropological in nature that explores the whole research problem to assess its complexity. For this reason, the approach employs thorough explanations. It is fundamental to shed light on some of its assumptions such as the focus on inductive rational in which theory is emerged from details and descriptive research (Attieneo, 2009).

Qualitative research is used when there is still lack of knowledge about a research topic (Corley & Gioia, 2004). Also, qualitative research embraces the use of open-ended questions which enable participants to provide details about the topic from the way they experience it (Denzin, 1989; Mack et al., 2005; Bryman & Bell, 2015). Furthermore, applying qualitative research involves field work which requires the researcher to be a part of the research for in-depth understanding (Attieno, 2009). Among other methods, qualitative research approach

allows flexibility during data collection (Rahman, 2016). Yet, some of the disadvantages of qualitative research are the inability to generalize results to wider contexts and the possibility of having complexities in data analysis (Atieno, 2009).

3.5.3. Research Strategy Adopted for the Study: Qualitative Strategy

This research implemented the qualitative approach to enrich an in-depth understanding of the topic under study. Furthermore, to thoroughly comprehend how bilingual Saudis engage in CS using online media platforms, I had to engage in the context, i.e., I needed to talk to Saudi bilinguals to understand how they were using CS and how they viewed it. For this reason, it is not fruitful to prepare a set of answers for the participants such as in survey research. It is crucial to involve into the field to allow participants to explain and tell their stories the way they experienced it. Eventually, I was able to come up with results gained through direct interaction with participants and record things as they happened through observation since my study employed qualitative methods such as semi-structured individual interviews (described in more details in the following section).

The other reason for adopting the qualitative approach is that, as stated in previous chapters, there is a dearth of knowledge on how bilingual Saudis engage in CS when using online media platforms. In other words, the topic has never been explored in depth. Therefore, which questions to ask the participants could not be pre-determined as in a quantitative approach. Although I had some topic guides/questions, some follow-up questions were asked based on the responses of the participants; these were based on their individual experiences, hence the adoption of a qualitative research approach. The strengths of the qualitative approach outweigh the limitations in relation to my topic, hence its adoption.

Thus, the methodology of this research has three phases (Crabtree, 2003): exploration; a systematic collection and organisation of posts, questionnaires, and interviews; and linking

that data with themes through data analysis (this will be discussed in the data analysis section 3.9 in this chapter). The analysis did not only occur at the end but also during the whole research process.

3.6 Sampling

The researcher selected a purposive sample of eight participants. The selected individuals or groups were specifically familiar with the topic under study (Cresswell & Plano Clark, 2011). There were three men and five women in order to gather different insights from each gender. They were chosen to meet specific criteria: a) being of Saudi nationality to reflect on the Saudi culture– it is true that Saudi Arabia is a large country with 13 distinctive regions yet, Saudis from most these regions are familiar with the same cultural backgrounds; b) being bilingual, with no pre-determined English proficiency level. This study did not focus on multilinguals because the focus is only on the two languages under study (Arabic and English); c) being active online, specifically on WhatsApp and Twitter; d) having a personal relationship with the researcher. The latter criterion allowed the researcher to have a more relaxed, emic interaction with the participants.

Saudis by nationality were specifically chosen so the participants in the current study are familiar with the Saudi system, including cultural interests, social traditions, taboos, jokes, their reactions to the surroundings and backgrounds and dialectal differences. These may not be applicable for those who live in Saudi Arabia but are not Saudis because they have different backgrounds and multiculturism, thus all non-Saudi-nationals were excluded.

It is true that there were no specific questions either in the online questionnaire or the interview about the Arabic varieties the participants may have used. However, from the collected data there were some Twitter posts, songs' quotes and WhatsApp stickers in other Arabic varieties such as Lebanese Arabic and Egyptian Arabic which means that some participants are well acquainted with these varieties and can employ them for communication.

The participants were selected irrespective of their English proficiency level, based on scholars' advice (previously discussed in section 2.4) that a bilingual does not have to be proficient in both languages (Auer, 1998; Wei, 2000). This decision expands the outcomes of the study, enriches its results and embraces the exploratory nature of this study. This was approved by an ethics board. The age range of the participants was from 20 to 50. This age range was chosen due to Omnicore statistics about it being the world's most active age range on Twitter (2014). This age group is very active in the Saudi online community and this age range may create an array of various backgrounds that may enrich the findings on the one hand. On the other hand, the participants are from similar socioeconomic backgrounds and this allows greater control over the independent variables that may affect online usage. The researcher selected the most recent WhatsApp chats (20–30 chats) and 20–30 actual Twitter posts (excluding retweets and likes) from each participant (a post is used for Twitter and a chat is used for WhatsApp because it is a chatting channel with threads of interaction).

In addition, the researcher distributed anonymous online questionnaires (the participants did not have to provide their names) to be filled out by those who complied with the above-mentioned criteria. The aim was to collect demographic responses in order to expand the view of CS frequency and linguistic practices and to investigate any correlations between the different variables such as gender and the frequency of CS, although no correlations were found. The demographic information includes gender, age, educational background, English proficiency, online language preference and whether or not the users code-switch in their online interactions. Fifty-one questionnaire responses were collected for this purpose (attached in appendix 3).

To sum up, fifty-one anonymous online questionnaires were collected with the participants' demographic information and CS practices. An additional eight participants participated in all three data collection methods: online questionnaires, interviews and

WhatsApp/Twitter chats. Presenting the voices of the users is crucial as they contribute to our understanding of how these online platforms might be deployed as tools by the participants.

The WhatsApp chats (interactions) were downloaded from the archive or captured from the private chats between the researcher and the participants. The Twitter posts were collected through http:www.allmytweets.net/connect/, which enabled the researcher to view all the tweets (for a specific period) from any Twitter user on one page. Accordingly, the data comprise 51 anonymous questionnaires, eight interview transcriptions (interviews were planned for 45–60 minutes but practically they did not last that long because some of the participants were briefly answering the questions without expansion especially through the interviews not conducted in person), and around 600 Twitter posts and WhatsApp chats (20–30 posts and 20–30 chats from each of the eight interviewees).

3.7 Data Collection Methods

It should be stated here that while it is true that this project mainly embraces a qualitative approach, as the study is data driven, there is an opportunity for quantifying (transforming data into numbers) the findings. Therefore, this study can be considered as a mixed-methods study. This enhances the triangulation (using a variety of methods to reinforce validity and allowing for multi-level analysis of the findings for deeper and more inclusive insights) (Dörnyei, 2007). The mixed-methods approach can enrich the results with qualitative findings, in this case including the analysis of participants' online posts and interviews. In addition, the quantitative findings include a categorisation of the participants' demographic backgrounds and online practices (collected from the online questionnaires). A further advantage of the mixed methods approach is the relationship between quantitative and qualitative approaches, which DMC is well equipped to bridge and support (Georgakopoulou, 2011).

Methods are techniques for collecting data. For qualitative research, examples of data collection methods include observations, diaries and interviews (King & Horrock, 2010). The following phases were conducted as the methods for this study:

Questionnaires: to collect some demographic information of the participants via online questionnaires using dichotomous and multiple-options questions (Cohen et al., 2007) such as; gender, age and English proficiency. These were implemented to gather some basic information about the participants, to identify some essential aspects of their backgrounds and to test if there any correlations between their independent variables and the frequency of CS or their linguistic practices. It is important to point that all real names of the participants were pseudonymized throughout the whole study. Also, for privacy and ethical reasons, all identifying information found in their data were deleted.

Actual online interaction: it is one of this study's data collection methods to capture some of participants' chats and posts from both online platforms under study WhatsApp and Twitter. Twitter is chosen due to its public communicative properties and its popularity among Saudis, being used by 52% of the population in Saudi Arabia (GMI, 2018). Also, WhatsApp is specifically selected due to its private communicative properties and its popularity over the other online platforms in the Saudi community statically being used by 73% of the population in Saudi Arabia (GMI, 2018). With regard to WhatsApp, the data was collected manually by capturing—a technical property to take an image of the mobile screen— the chats including participants' interaction either with the researcher or with other participants. Regarding Twitter, the posts were collected through http:www.allmytweets.net/connect/.

The WhatsApp and Twitter posts were collected from eight participants (5 women and 3 men). These participants also participated in the interviews. The duration of collecting data was four months. The history of posts go back almost for two months to enrich the data with as many and various posts as possible because in some situations most of Twitter participants'

contributions were not actual posting but only retweets and likes which do not represent sufficient data (not including retweets and likes action on Twitter is a limitation of this study discussed in section 6.5). The data provided me with a mini-corpus of the English borrowed or code-switched words that allowed for the research questions to be addressed (attached in the appendix 4).

Semi-structured interviews by definition, a semi-structured interview is a type of interviews in which questions are prearranged but can be modified during the interview according to the interviewees' responses and what the interviewer decides to be the most appropriate to gain deep understanding of the problem under study (Van, 2014; Steber, 2017). The interviewees' responses determine "the way in which the interview is directed" (Stuckey, 2013: 57). Thus, the questions were open-ended (attached in appendix 1) and most of them depended on the data given as discussed above. This type of interviews start by some guiding questions and the rest are data-driven questions that are formed due to the data provided by the participants during the interview which facilitate clarifying vague or incomplete answers (Mackey & Gass, 2005). The questions in the semi-structured interviews aim to answer the research questions for this study by getting particular information such as topic or theory (McLaughlin, 2003). Also, these questions investigate the participants' preferable practices and how online communication with all its facilities and affordances assist them to communicate. They are called semi-structured "because discussions may diverge from the interview guide, which can be more interesting than the initial question that is asked" (Stuckey, 2013: 58). For example, when some participants enriched the data with additional information that were not planned in the main questions such as the influence of Aramco (an American oil company, the first oil company in Saudi Arabia) on emerging English language in the eastern province of SA discussed in section 4.5.1). The researcher translated the Arabic parts of the interview in order to unify the language of the interviews for easy analysis and to quote some parts in the discussion section. The

interviews were audio-recorded for the purpose of the analysis. Unlike structured interviews, which have pre-determined answers, semi-structured interviews allow the interviewees to respond to questions based on their opinions or experiences in their own words (Bryman & Bell, 2015). In this study, such questions investigated the participants' preferred practices of CS and they allowed the participants to explain how online communication with all its facilities and affordances assisted them to communicate.

The flexibility through probing and follow-up questions also helps to elicit information that the researcher did not anticipate at the beginning (Gill et al., 2008). Furthermore, semi-structured interviews help the researcher to obtain an insider's view or account, which aids with understanding experiences within a particular context. They also help the interviewer to prepare ahead of time while, at the same time, giving the interviewees the freedom to express their views in their own words (Stuckey, 2013). Finally, they guide the interviewer on what to talk about (Gill et al., 2008).

3. 8 Ethics, Integrity and Reliability

As this research involves primary questionnaires and interviews, which engage the participants, the researchers must adhere throughout to the ethical codes of conduct set by The British Educational Research Association's ethical guidelines for conducting research (BERA Guidelines, 2011). One example is the maintenance of the confidentiality and privacy of the participants. No personally identifiable information was taken from the participants except their demographic data, and this will be used only for the purpose of analysis. Other important codes of ethics were followed by the researcher during this study, including those of trust, fairness, respect, responsibility, legality and communication. To ensure honesty, the researcher ensured that the data were collected and not modified before the analysis was conducted.

Trust was built between the researcher and the participants by having relaxed, non-threatening and friendly interview with each of them and ensuring the confidentiality and privacy of their private information to ensure that they were freely able to express their views. Also, standards, academic integrity and practices of research were utilised for data collection and analysis to assure that the results obtained were sufficient and adequate. According to the communication codes of ethics, the results could be distributed to the participants who took part in the questionnaires and the interviews. They were informed about the results and their impacts on the research domain (EUI, 2013). Also, the following ethical factors were taken into account: a) the identities of the participants were anonymous; b) pseudonyms were used to clarify genders and comments; c) the participants were informed about the general aims of this study via the consent form (attached in appendix 5); d) the participants had the right to withdraw from the study at any time; e) the researcher did not place any pressure on the participants to take part; and f) the recorded data from the interviews were used for the sole purpose of this study and destroyed after an approved period of time following the completion of the study.

3.9 Data Analysis

The data analysis is inductive. It is not a fully grounded approach that starts with a blank slate because I went into the field with some concepts; first, CS is an alternation between languages, varieties and multimodality either inter-sentencially or intra-sententially. Second, the bilinguals in this study do not have to be proficient in both languages. Third, DMC and its users indicate through literature their empowerment over each other socio-linguistically. As the themes or concepts in the Research Framework guided the data collection, the use of the framework in this study was not to be limited to specific aspects but rather guide the exploratory study and show the focus or the parameters of the study just as I was open during

field work. Consequently, further to the framework, I am open to new concepts that emerge from data analysis. Therefore, the data presented in this thesis falls under concepts that are both in the framework and those that emerged through field work and analysis.

As awareness of DMC spread with the universalisation of the Internet, it soon became obvious that CMD was sensitive to two factors, technical and situational, making it multifaceted and variable (Baym, 1995; Cherny, 1999; Herring, 1996). Simultaneously, the focus of much CMD research has shifted to describing the linguistic features of individual genres of CMD, e.g., email discussion lists and IRCs. Herring (2002) termed these as "socio-technical modes" – referring to Murray's (1988) use of the term "mode" defining technological DMC subtypes – to emphasise that labels such as "IRC", "email", etc. are commonly used to refer not just to DMC systems, but also to the social and cultural practices that have occurred around their use.

Both parameters genre and mode, however, while more suitable to be inclusive for all DMC, are also inadequate as a basis for classifying CMD. First, the parameter of genre can hypothetically be applicable to communication at distinctive degrees of specificity (Maingeneau, 1998), and is therefore imprecise. To illustrate, is the applicable level of genre classification "email discussion lists", "academic discussion lists" (cf. Grüber, 2000) or "academic discussion lists on masculine/feminine topics" (cf. Herring 1996) – each of which is related to distinctive linguistic practices? The mode approach partially has the same limitation as it is not applicable to all CMD types, referring mainly to technologically defined CMD types, but additionally it ignores social differences of the sort identified by Grüber (2000) and Herring (1996).

Therefore, to obtain the best results from this study, a specifically designed data analysis tool is needed like CMDA, as will be explained below. In addition, multiple layers of data analysis have been taken into account to complement the methodology of this study. In

the following section, gradually built data analysis tools will be described in regards to how the data will be analysed linguistically and situationally (through CMDA). Then, through TA and Nvivo to articulate either common or significant themes from the data collected in order to shape the current study's findings and place its significance by bridging the gap in the literature.

The information about the participants was collected in sequence, starting with their demographic information, their posts and chats from both online platforms, and ending with their views on their online usage, gathered through the interviews. Data collection tools collaborate together assisting me to go beyond the screen and gain a thorough understanding of how the participants employed their linguistic and non-linguistic affordances for communication purposes in their online interactions.

3.9.1 Rationale for Adopting the Data Analysis Model

There is a need to understand CS from a number of perspectives, which is one of the original contributions of the current study. This research surveys the chats of bilinguals when interacting on online platforms to explore possible linguistic and sociolinguistic practices of communication. Most studies on CS have focused on the linguistic features of CS, and even those that have examined the linguistic features have done so from a simple perspective that focused on the types of words that had been code-switched.

The aim of this model is to provide a comprehensive approach to analysing the data. This is important for obtaining an in-depth description of CSs and what they may mean for the study objectives and research questions. I have based this comprehensive approach on the study of the participants' sociolinguistic online practices, based on Herring's identification of online community. In addition, Tagg and Seargeant (2014) point out that online social media has had a profound impact on people's linguistic and communicative practices and the social networks and groups they create. Herring (2004) claims that the micro-discursive features and the

interactive patterns are used by social actors to form communities. Moreover, these are used not only by individuals for self-development, but also online communities use different features to make their voices heard. Therefore, Herring's approach to CMDA (2004, 2007) will be implemented for these purposes.

As discussed in section 2.5.1 on the drawbacks of the frameworks commonly implemented in the literature, there is a strong need to find a suitable framework, such as CMDA, that considers the sensitive linguistic and social nature of the current study. CMDA is a scheme that can be used to categorise the language and interactive behaviour of DMC, which is the focus of this project. CMDA engages methods modified from language disciplines such as communication and linguistics to the course of analysing DMC (Herring, 2001). In this study, it will be supplemented by questionnaires and interviews. Its core is the analysis of verbal interaction (characters, words, threads, etc.). In general, the goal of this scheme is to synthesise aspects of technical and social context that influence discourse usage in DMC environments. In other words, it views online behaviours through the lens of language; this makes it the most suitable framework for the current study since it deals with online interaction from both linguistic and social aspects. CMDA sheds light on both medium (technological) and social (situational) factors, which are exactly this study's concern.

M1	Synchronicity
M2	Message transmission (1-way vs. 2-way)
M3	Persistence of transcript
M4	Size of message buffer
M5	Channels of communication
M6	Anonymous messaging
M7	Private messaging
M8	Filtering
M9	Quoting
M10	Message format

Figure 3 Medium Factors (Technological)

S1	Participation structure	• One-to-one, one-to-many, many-to-many • Public/private • Degree of anonymity/pseudonymity • Group size; number of active participants • Amount, rate, and balance of participation
S2	Participant characteristics	• Demographics: gender, age, occupation, etc. • Proficiency: with language/computers/CMC • Experience: with addressee/group/topic • Role/status: in "real life"; of online personae • Pre-existing sociocultural knowledge and interactional norms • Attitudes, beliefs, ideologies, and motivations
S3	Purpose	• Of group, e.g., professional, social, fantasy/role-playing, aesthetic, experimental • Goal of interaction, e.g., get information, negotiate consensus, develop professional/social relationships, impress/entertain others, have fun
S4	Topic or Theme	• Of group, e.g., politics, linguistics, feminism, soap operas, sex, science fiction, South Asian culture, medieval times, pub • Of exchanges, e.g., the war in Iraq, pro-drop languages, the project budget, gay sex, vacation plans, personal information about participants, meta-discourse about CMC
S5	Tone	• Serious/playful • Formal/casual • Contentious/friendly • Cooperative/sarcastic, etc.
S6	Activity	• E.g., debate, job announcement, information exchange, phatic exchange, problem solving, exchange of insults, joking exchange, game, theatrical performance, flirtation, virtual sex
S7	Norms	• Of organization • Of social appropriateness • Of language
S8	Code	• Language, language variety • Font/writing system

Figure 4 Social factors (situational)

As this project focuses specifically on online interaction on WhatsApp and Twitter, some or maybe all of the above-mentioned factors may be applicable to the data that is collected for this study. For example, looking at the medium factors, anonymity is a crucial dimension of Twitter, where users have the option of tweeting anonymously. However, in WhatsApp this is not possible. Referring to the social factors, tone can be heard in WhatsApp through the facility of voice-notes. This is not applicable on Twitter, yet in both it can be replaced by emojis to reflect the users' moods. One of the most important factors in Herring's framework is the code, which corresponds with the current study's focus on switching languages (between Arabic and English).

The following table is developed from Herring's original framework (2004, 2007) to combine all the factors in one table for easy access:

Table 5 A combination of applicable factors

Medium Factors	Situation Factors
1/ Synchronicity	1/ Participation structure such as: degree of anonymity, group size
2/ Message transmission	2/ Participant characteristics e.g., demographics and attitudes of participants
3/ Persistence of transcript	3/ Purpose of the group or the interaction.
4/ Size of message buffer	4/ Topic or theme of exchange.
5/ Channels of communication	5/ Tone, e.g., serious or playful.
6/ Anonymous messaging	6/ Activity such as game or theatrical.
7/ Private Messaging	7/ Norm of social appropriateness or language.
8/ Filtering	8/ Code such as languages or varieties.
9/ Quoting	
10/ Message format	

CMDA has been selected due to its sensitivity for both variables in the current study, involving technological affordances on the one hand, and communicative affordances on the other. In the data analysis, depending on the collected data, the researcher may rely on all or some of those factors to relate the findings to literature, categorise the results, report significant outcomes or signpost their effect on other findings.

Secondly for the CS data, Al-Wer's approach "grounding the linguistic data" (2013: 256) was implemented by firstly analysing them linguistically, i.e., reverting each word to its

original form and removing prefixes and suffixes to understand how they are originated, and secondly, by linking them to the context in which they were used.

The third phase of the analysis, thematic analysis (TA), is theoretically flexible. This means that it can be used within different frameworks because it is generated "for identifying, analysing and reporting patterns (themes) within data" (Braun & Clarke, 2006: 87). TA suits questions related to people's experiences, views, perceptions and representations, and the construction of meaning. In this project, TA will be employed to decode themes involved in the data through an integrated approach to benefit from inductive coding and to gradually develop sub-codes from broad code types. This analysis process goes through two levels: semantic followed by latent. Semantic themes emerge from "…within the explicit or surface meanings of the data and the analyst is not looking for anything beyond what a participant has said or what has been written" (2006: 84).

Hence, analysis is more than describing data, it is rather focusing on explaining it. Nevertheless, the hidden level considers what is beyond the surface and "…starts to identify or examine the underlying ideas, assumptions, and conceptualisations – and ideologies – that are theorised as shaping or informing the semantic content of the data" (2006: 84). These two levels are fundamental to answering the research questions in a qualitative way following the six steps (see Figure 5) derived from Braun and Clarke (2006). A theme is a pattern that captures something significant or interesting about the data and/or research question, and it is therefore characterised by its significance. All of the codes may fit into one or more themes but this is not always the case, thus, a "miscellaneous" theme can be proposed to manage these codes at this point. For example, in the findings of the pilot study for this project, a sub-theme "other emerging themes" was suggested in order to include such codes.

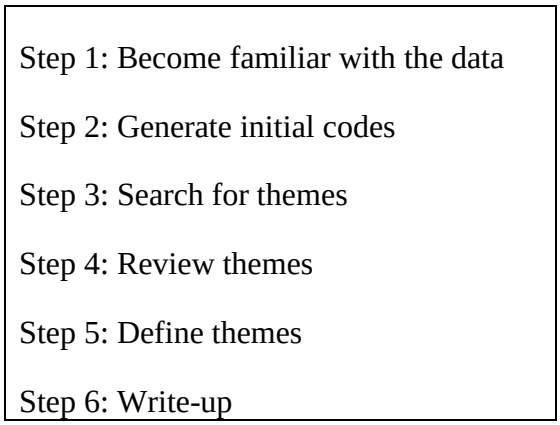


Figure 5 Braun & Clarke's six steps in TA

In the fourth phase of the analysis, Nvivo software is used for triangulation of the data and also to explore correlations between the different variables reported by the participants, such as the relationship between educational level and English proficiency or between gender and the tendency to use CS.

3.9.2 Data Analysis Tools

As mentioned above, Nvivo software is used to analyse the themes captured from the collected data (interview transcripts). Also, CMDA is developed to combine medium (technological) and situational (social) factors (see Figure 6 below). Al-Wer's (2013) approach is employed for the CS data from a TL view (Wei, 2018), and TA is used to identify meanings from the data to answer the second research question.

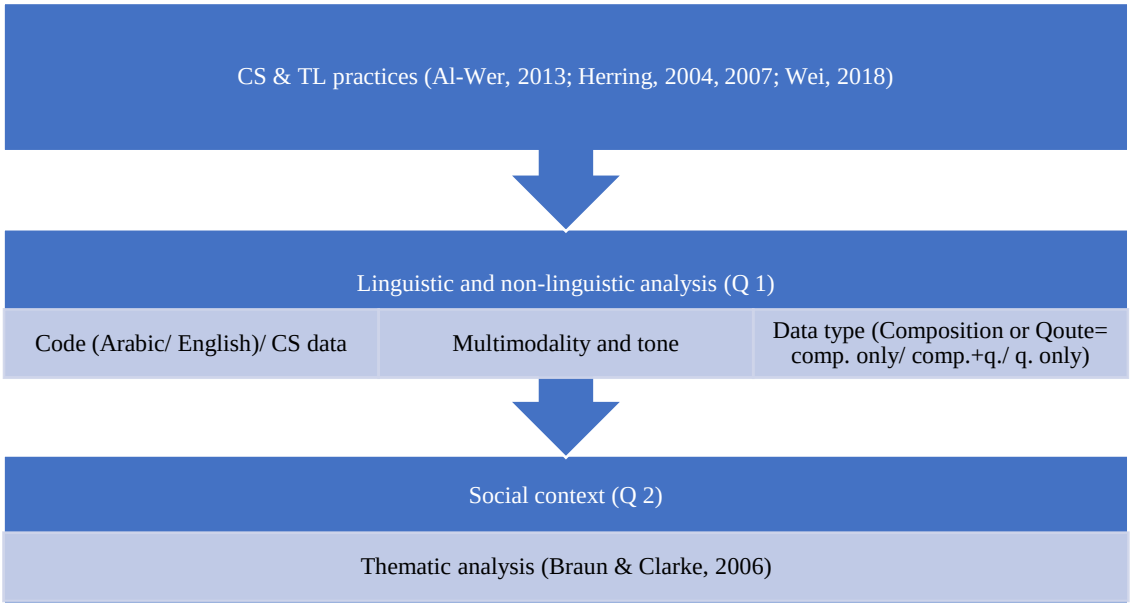


Figure 6 Data analysis model

3.10 Pilot Study

Methods & Analysis

Before the main study was conducted, a pilot study took place in order to test the methods and the research questions. To recap, this study aims to answer the three following exploratory questions:

a) What CS practices emerge in online communication by Saudis?

b) What do these practices reveal about the users?

c) What are the affordances that online communication provides?

To answer the research questions, a total of 94 tweets and 99 WhatsApp chats were collected from four participants (two men and two women). The original plan was to look at old tweets for up to two months, but when collecting the data, it was noticed that most of the tweets were retweets or likes, which did not represent the actual postings of the participants. Therefore, the researcher went back five months to look at historical tweets.

Participant	age	gender	Educational background	Language use in online interaction	Posts collected from Twitter & patterns	Posts Collected from WhatsApp & patterns
Saud	45	M	BA beginner E.	Both Arabic & English	(22 tweets) 24 hashtags 10 mono-Arabic 7 pictures 1 mono-English 12 emojis 1 insertion written in Arabic	(24 WhatsApp) 19 voice notes 8 emojis 12 mono- Arabic
Naif	25	M	BA advanced E.	Arabic	(23 Tweets) 20 hashtags 17 pictures 16 emojis 2 mono-English 9 mono-Arabic	(22 WhatsApp) 11 mono-Arabic 5 mono- English insertions written in Arabic 1 mono-English 1 emoji 10 voice-notes
Hala	33	F	PG advanced E.	Both	(29 Tweets) 29 mono-Arabic 22 emojis 17 hashtags 3 pictures An English idiom written in Arabic (I take my hat off as a respect)	(23WhatsApp) 13 mono-Arabic 2 emojis 2 GIFs 2 English intra-sentential written in Arabic 4 voice-notes 10 mono-English insertions written in Arabic 1 mono-English
Sara	31	F	PG advanced English.	Both	(20 Tweets) 9 hashtags 10 pictures 12 emojis 15 mono-Arabic 1 single-word insertion 1 mono-English 2 intrasentential CS 1 English insertion written in Arabic plural form (groupat=groups) 1 English idiom written in Arabic (you made my day)	(30 WhatsApp posts) 18 mono-Arabic 2 English mono-word insertions 9 single-word E. insertions written in Arabic 3 voice notes 1 emoji 3 GIFs

Table 6 Participants' demographics and frequency of collected data (the pilot study)

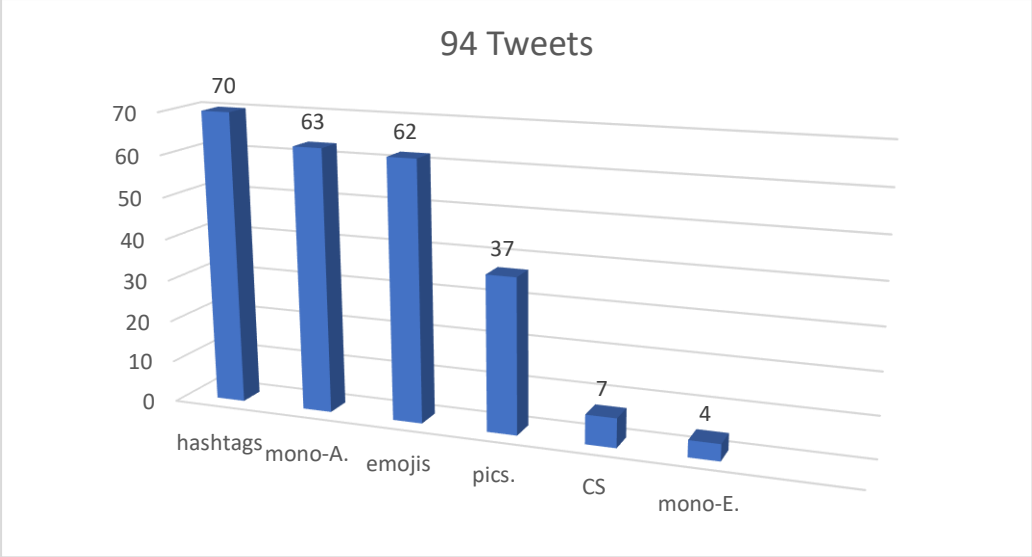


Figure 7 linguistic and non-linguistic practices from collected tweets

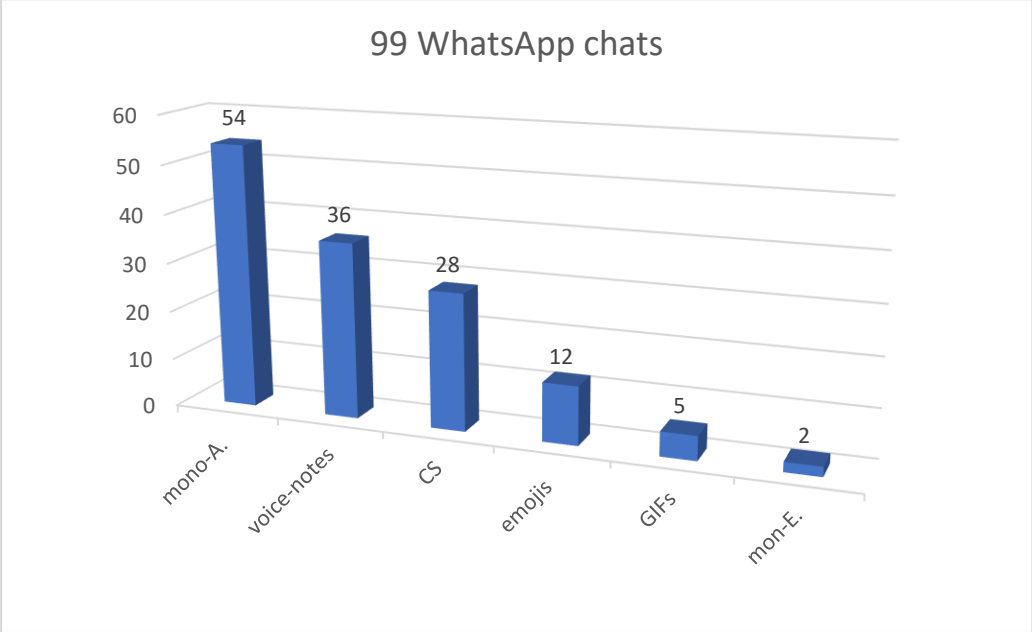


Figure 8 linguistic and non-linguistic practices from WhatsApp

The following criteria were applied to the participants' Twitter accounts:

a. All of their Twitter accounts were assigned under their real names.

b. Their accounts were active during the data collection procedure on a reverse timeline from February 2019 back to October 2018.

c. The account biographies (the description that appears on the homepage of the tweeter) were also captured to understand more about their online preferred existence.
d. All retweets and likes were excluded to focus on the actual tweets of the participants.

The three following sequential methods for collecting data were involved:

1/ online questionnaires were distributed to elicit the four participants' demographic information: age, gender, educational background, level of English proficiency and online favourite language.

2/ 20–30 chats and tweets from each platform (WhatsApp and Twitter) for each participant were captured. The researcher manually decoded them to document the frequency of CS and multimodal patterns (see table 6).

3/ the researcher conducted a semi-structured interview with each participant for 45–60 minutes with open-ended questions (attached in appendix 1) for an in-depth discussion and exploration of their online practices and views. This was successful and nothing occurred that warranted significant changes to the questions.

4/ the researcher interpreted and managed the findings by creating an MS Word file under a pseudonymized name for each participant.

CMDA and TA were applied and they were found to be applicable and efficient for gaining answers to the research questions. Nvivo software was to be used to enrich the analysis with a thematic organisation of unstructured text, audio, video, and images, but at the time of the pilot study the researcher had not received sufficient training on the software. The researcher reviewed the interview questions and added additional ones (both can be found in appendix 1) based on the data given by the participants, embracing the data-driven nature of this study. The findings showed that CS among bilingual Saudis in their online interactions was not limited to switching between languages, but also included switching between linguistic and non-linguistic features. These are afforded by the online platforms and they point to

multimodality, as discussed in the introduction chapter for this study. It should be noted that with every update to these platforms, users find new ways to communicate with others. Also, the findings showed some gender differences. First, women used CS linguistically and pragmatically more than men. They also used more text-based posts than men. Secondly, in public online usage, women are more concerned than men about being misjudged or labelled.

Additionally, the findings answered the three basic research questions presented earlier in this section. With regard to the first question, the practices implemented by the participants have been categorised in a table (see table 6) to show the types and frequency of usage. It should be noted that no significant practices were found. Regarding the second research question, the pilot study found that multimodality provides more space for the participants to express their opinions. It supports their messages and serves different purposes that are not applicable in offline interaction, such as ease of not being observed (see table 6). The third question about what these practices disclosed about the participants was categorised under themes that were found to be common among the participants.

Furthermore, the analysis and discussion of the results enabled the researcher to compare them to previous studies and to bridge the gap in the literature. This pilot study produced comparable conclusions to those reported in the literature. It also revealed some unreported ones, such as gender differences, and the fact that online multimodal affordances contributed the most to delivering messages and expressing emotions. Interestingly, anonymity was not reported to be an online interaction trait as a liberating space. Last but not least, it was concluded that the participants preferred to use Arabic to interact both publicly and privately, and there was no significant usage of linguistic CS.

The researcher's reflection on the pilot study

I was pleased that the participants found the topic engaging because they were able to share personal secrets and have an opportunity to reflect on their online interactions. It was

noted that the participants were very open about their online social behaviours, which was enjoyably unexpected due to the conservative nature of the Saudi community. Some of them showed deep insights by sharing their intentions behind the use of some affordances, for example to avoid criticism. I felt that it was also noteworthy that the participants showed a sense of sincerity by not posting under nicknames. Although the women participants expressed their concerns about being misjudged by their followers on Twitter, they still preferred to tweet carefully under their identifiable names.

For me, it was unanticipated to see how most of the participants' online communication was affected by the dominance of their offline society. They stated more than once that they had not engaged in some Twitter interactions due to the fear of being misjudged or labelled. I realised after conducting the pilot study that the second and third questions gave similar findings and that the responses from the participants as the online affordances were the main facilities that assisted the participants to mainly communicate and construct their online social existence. Thus, these two questions were summarised and combined into one question:

- How do the participants employ online interaction to fulfil their social purposes?

Strengths and weaknesses revealed by the pilot study

a) Strengths

- Most of the tools used to collect and analyse data worked well. Thus, the findings answered the three basic research questions presented at the beginning of this chapter.
- The timeline planned for the pilot study was adequate.
- The participants found the online questionnaire easy to complete.
- The participants found the topic enjoyable and the interview questions engaging. Each interview contained slightly different sub-questions based on the participants' feedback, which embraces the data-driven nature of the study to enrich the findings.

- Excel was used successfully to analyse patterns and frequency and convert this data into charts.
- The researcher reviewed the interview questions and added questions based on data given by the participants, again highlighting the data-driven nature of this study.

b) Weaknesses

- As the researcher was physically far from some of the participants' place of residence, it was not possible to conduct all interviews in person, so some of them were done through Skype or by phone which might affect the spontaneity of the interview and flow of the conversation. Some participants expressed that interview in such ways seem formal which is not familiar with someone they know like the researcher.
- Due to the shortage of time and the lack of Nvivo workshops at the time of the pilot study, the researcher could not use it this time but resolved to employ the software in the main study for more thorough data analysis, and to organise the correlations between variables like gender and CS.
- The researcher had planned to create a CS vocabulary mini-corpus from the data collected, but a limited number of words were found due to the small number of participants. The aim was to still achieve this goal in the main study.
- All four participants were given the chance of commenting on the written record of their interviews but only one took up the opportunity and they did not edit it or add any further information.

The Reflexivity and Reflection of the Researcher

Qualitative research involves ethical issues and challenges that are unique to the study of human beings. It is fundamental to emerge the interactive relationship which is crucial to qualitative research, to engage the researcher with participants in an interaction that regularly provokes experiences and memories that are reconstructed in ways that otherwise would not

occur. During this interaction, some personal information may be shared which requires ethical issues to be considered to maintain confidentiality. The relationship between the researcher(s) and the participant has been a frequent concern in the methodology literature. The privileged position of the researcher vis à vis the participant has been strongly emphasised.

The imbalance between the two parties and the ethical concerns relating to this imbalance are commonly under the spotlight, with particular attention being paid to the pre-determined unequal roles between the researcher and the participants. Yet, the literature contemporarily stresses that qualitative traditions all have "…a common epistemological ground: the researcher determination to minimise the distance and separateness of researcher-participant relationships" (Karnieli-Miller et al., 2009: 279). In line, it is claimed that identifying which knowledge to consider in a solid researcher-participants encounter is not necessarily the sole advantage of the researcher because participants share their personal agenda about the research topic (Karnieli-Miller et al., 2009). In the ethnographic literature, the focus is on the complicated role of the researcher as an insider, as well as to the circumstantial understanding of potentially divergent perspectives between the researcher and the participants (Hammersley & Atkinson, 1983, 1992; Angrosino & Mays De Pérez, 2000). There is role conflict between having an emic and an etic stance as well. Therefore, as suggested by Aoki (1996), the participant-researcher stance can also be referred to as insider and outsider. These two positions are understood as dual separate pre-established existences, which can be bridged by a hyphen. This hyphen can be considered as a stance more than a path. Furthermore, this hyphen represents a third space in between, a space of contradiction, ambiguity and uncertainty, as well as one of coexistence and incoherence.

Insider research refers to the researchers being members of the population under study (Kanuha, 2000), with which the researcher shares an identity, language and practical base (Asselin, 2003). It is proposed that first, the complete membership role provides researchers

with a certain degree of legitimacy and/or stigma (Adler & Adler, 1987). Second, this insider status commonly allows researchers to be quickly accepted by their participants. Consequently, participants are normally more open with inside researchers, which leads to deeper shared data.

On the other hand, Adler and Adler (1987: 73) suggest that in this "ultimate existential dual role", researchers might encounter role conflict if they fall between "loyalty tugs" and "behavioural claims" (Brannick & Coghlan, 2007: 70). To illustrate, Asselin (2003) raised the point that the dual role might result in role misperception when the researcher reacts to the participants or analyses the data in a way that is not from a researcher's perspective. Additionally, the participant might make assumptions of similarity with the researcher's perception, and thus fail to explain their individual full experiences (Watson, 1999; Armstrong, 2001). Yet, it is the researchers' role to note their differences and similarities with others, as Fay argued (1996: 241) that each requires the other "There is no self-understanding without other-understanding". Accordingly, the participant-researchers may adopt one position more than the other, but because the researchers' perspectives are shaped by their position as researchers (having read much literature on the research topic), it is not possible to become fully involved in one or the other of those positions.

In the current study, the emic stance is the first half of the participant-researcher, thus, as a bilingual I am able to understand the WhatsApp messages that consist of CS between Arabic and English. Also, as all the WhatsApp chats in this study were taken from friends and relatives, it is important to highlight that I was well acquainted with their writing/speech styles, which minimises the chances of misunderstanding or strangeness. Also, I as a participant-researcher, either in private WhatsApp chats or in groups, I am familiar with the updated norms such as the abbreviations and multimodal usages that my interlocutors develop every now and then. It is crucial to report that although I am trying all the while to adopt new chatting patterns like personalised stickers (stickers of Arab and Saudi famous artists in specific situations or

with well-known expressions among the Arab and Saudi community from songs, movies, theatre scenes etc.), there is always something new to learn from online WhatsApp chatters as electronics updates occur.

Moreover, as a Saudi and as the participant-researcher, I am able to converse with the interlocutors about the whole Saudi system, including cultural topics, social issues, taboos, interests, some ways of thinking, some ways of reacting to surroundings and topics, dialectal differences and word choices that are considered appropriate, unusual or outdated in specific communities. This makes all the implications, jokes, comments and replies comprehensible. Furthermore, collecting the WhatsApp chats was an opportunity for me to revise my own online chatting patterns and I realised that I do CS, but that my CS differs from my interlocutors' patterns. As I delved back in my WhatsApp chats, I realised that I had developed an awareness of the online norms and updates that online users use to communicate with the groups, which leads to an associated methodological perspective called the symbolic-interpretive perspective (Frey, 2004). This can be applied here to how group members employ symbols (linguistic and non-linguistic affordances in this study) and the effects of symbol usage on individuals, interactive processes and outcomes, as well as how these groups are products of such symbolic activity. To illustrate, it is important for an online user to be familiar with what such usages mean and how they are employed in order to communicate with other interlocutors on an equal basis.

Furthermore, in Twitter, it is the same situation, but there is an even bigger opportunity to learn from worldwide tweeters about new patterns of communication and the employment of Twitter affordances to be able to interact with wider audiences. Moreover, Twitter as a public platform facilitates introductions to other cultures and it exposes the Saudi culture as well to others. Besides, it is important to point out that I as a participant-researcher and as a Twitter user am not only acquainted with the Saudi norms of tweeting, but also with the more general

norms of Twitter such as mentions, hashtags, retweets, and retweets with comments and likes. This makes me able to differentiate between my participants' actual postings, the affordances they may use, what is considered as usual and unusual in terms of Saudi politeness norms, stereotyping, issues of power among Twitter users, the positives and negatives of Saudi tweeters and most importantly, accessibility to the society as a Saudi and as a tweeter. It is surprising how different my relations with Twitter and tweeters were prior to and after this study.

Previously, I was just tweeting, reading and participating on Twitter with no focus on the implications of tweets or the power of the affordances to release users' emotions. My view of the Saudi society was as an outsider with biases and judgements. Yet, now as an insider and a member, I am surprised to see that I underestimated Saudi tweeters in how they employ Twitter to express their thoughts, views and emotions. Even those who are beginners to Twitter are rapidly introduced to the norms and start to use and manipulate their linguistic and non-linguistic affordances to be a part of the big Twitter image. In line with this, Asselin (2003) has proposed that it is good for the insider researcher "to gather data with her or his eyes open but assuming that she or he knows nothing about the phenomenon being studied". She also stressed that although the insider researcher may be part of the culture under study, he or she may not recognise the subculture, which leads to the need for "bracketing assumptions" (ibid. 2003: 102).

On the other hand, the etic stance is the other half of the participant-researcher, who has to document and analyse data with a specific pre-planned role as an objective observer of the participants' data. Although research material is co-produced by the two parties, and the researcher is basically reliant on the participants' knowledge about the phenomena under study and on their willingness to share, the researcher should work for the common aim of diminishing the distance between the researcher and the participants. This can be done by

creating an anti-authoritative researcher-participant relationship in order not to negatively affect the data. The etic role also means tackling complex negotiations about the research agenda, deciding the relevant data, shifting in "inferior" and "superior" knowledge positions, and tackling ethical dilemmas. One of these roles is to re-think the research agenda, but also to reduce the substantial emotional stress. The dual role as insider and outsider, a participant and a researcher, added to the challenge (Angrosino et al., 2000). Additionally, the practice of continuous reflexive awareness is fundamental (Malacrida, 2007). It is the same situation for the context of knowledge production, where the researcher scrutinises critically the flow of the data – the interviews – without subjective interference that may mix between the researcher and the researched in knowledge production.

Hence, systematic linking and deep engagement in the research process, being aware of one's personal bias and perceptions, can decrease the possible concerns associated with insider membership. Likewise, a researcher does not have to be a member of the community under study to appreciate and sufficiently characterise the experience of the participants. Instead, it is argued that the core focus is not the insider or outsider stance yet the ability to be open, accurate and genuinely interested in the experience of the research participants, and representing their experience (Fay, 1996: 20) "Knowing an experience requires more than simply having it; knowing implies being able to identify, describe, and explain". Human history indicates the researcher's persistent tendency to tackle multifaceted issues as a struggle between two divergent sides (Gould, 2003).

3.11 Conclusion

This chapter covered several aspects of the study including the philosophical approach, the research strategy, the study context, the case study approach, the data collection methods and the participants. The study adopts a mixed-methods approach with a mainly qualitative

research strategy owing to the nature of the subject under study. It also uses a partial quantitative approach with regard to converting the findings into numbers and representing the percentages of some findings in charts. The chapter also discussed the ethics followed during the study.

This project is situated in the field of sociolinguistics and focuses on the interrelation between: first, CS between English and Arabic practices used by Saudi bilinguals in their online interaction and second, how these bilinguals employ online resources to communicate through a variety of online platforms specifically Twitter and WhatsApp. This project looks beyond language and considers multimodal affordances that interlocutors employ in their online interaction practices for the purpose of communication and self-presentation. This study investigates the people using online affordances and CS as tools to enhance their communication.

The methodology of this research has three phases (Crabtree, 2003). First, exploration. Second, a systematic collection and organization of posts, questionnaires, and interviews. Finally, linking that data with themes through data analysis

The data analysis model is based on three different models: CMDA, Al-Wer's CS approach and TA which are discussed and justified. The aim is to provide a comprehensive approach to analysing the data which is important to obtain an in-depth description for CSs and what they may mean for the study's objectives and research questions.

A summary of the pilot study is presented in this chapter. The analysis and discussion of the results are to compare them to previous studies and to bridge the gap in the literature. This exploratory study ended up by some comparable conclusions to what have been reported in the literature and some unreported ones, such as: gender differences, online multimodal affordances have been found to be the most contributing factors to deliver messages and express the emotions. Interestingly, anonymity has not been reported to be an online interaction

trait as a liberating space. Last but not least, it has been concluded that participants prefer Arabic either to interact publicly or privately and linguistic CS has not shown any significant use.

These findings pave the way for the next chapter where the findings of the main study are presented to enhance the understanding of participants' perceptions and sociolinguistic attitudes.

Chapter 4: Findings and Analysis

4.1 Introduction

This study seeks to highlight and document the most common and recent online CS practices between Arabic and English used by bilingual Saudis, specifically on two platforms (WhatsApp and Twitter). The study also seeks to investigate how the users employ these practices for communication purposes and other social interconnected aspects. This project looks beyond language and considers the multimodal patterns that interlocutors employ in their online interaction practices for the purpose of communication (see section 1.3.1). The participants in this study were eight Saudi bilinguals. Of these participants, 67 per cent described themselves as “advanced” with 25 per cent describing themselves as “intermediate” in their English proficiency (see chart 2). This partly explains why these participants did not have significant problems with understanding the concept of CS.

This chapter is organised as follows: first, it presents an overview of the data findings (descriptive demographic statistics). Second, it presents the analysis relating to the findings of the research questions, i.e., the CS practices found in the data and how these linguistic practices assist the participants with communicating and fulfilling social purposes.

This chapter presents the findings of the data collected from the online surveys, actual posts and interviews to answer the following research questions:

- What CS practices emerge in online communication by Saudi bilinguals? For what reasons?

- How do the participants employ online interaction to fulfil their social purposes?

A total of 194 WhatsApp chats and 122 tweets were collected from eight participants (five women and three men). The researcher transcribed the Arabic parts of the collected data (chats and interviews) and organised the findings by making an MS file under a pseudonymized name for each participant. The data from the online survey comprised factual information: age, gender, educational background, English proficiency and online language preference (the online survey included a consent form with the participants' real names. These were collected from all the participants and they are presented in a descriptive statistic form (see section 3.5).

Second, the collected data included tweets and chats of the participants (see appendix 7). The linguistic practices included Arabic and English written texts, where the non-linguistic patterns are the audio and visual online affordances such as voice-notes, emojis (smileys), pictures, stickers, avatars (personalised figures), hashtags and GIFs.

Third, I conducted individual semi-structured interviews with each of the eight participants (some interviews were conducted in person while others were by phone). It was more preferred if all interviews were conducted in person for more relaxed atmosphere and more in-depth discussions because all interviews on the phone seemed formal therefore brief thus, the participants did not delve into details and felt they were completing a formal task for the researcher which negatively influenced the outcome of the interviews. The interviews' questions were in English and the interviewees' responses varied between Arabic, English and both. The interviews were audio-recorded, and since most were in Arabic, they were transcribed and then translated for data analysis. The interviews were analysed using TA with the aim of answering the research questions (Braun & Clark, 2006). The themes are divided into reasons for CS as reported by the participants (interview data) and an overview of the themes found in the interview data.

4.2 Participants' Demographics (Online Surveys)

The findings from the surveys show the demographic data of the participants as follows: 5 of the participants are women while 3 are men; 4 of the participants are in the age group of 20–30; 3 participants are aged between 30 and 40; and one participant is aged 40–50. Therefore, it is noted that the majority of the participants are young. Table 6 and chart 1 show the data.

Table 7 Number of participants by gender

Gender	**Number**
Men	3
Women	5
Total	**8**

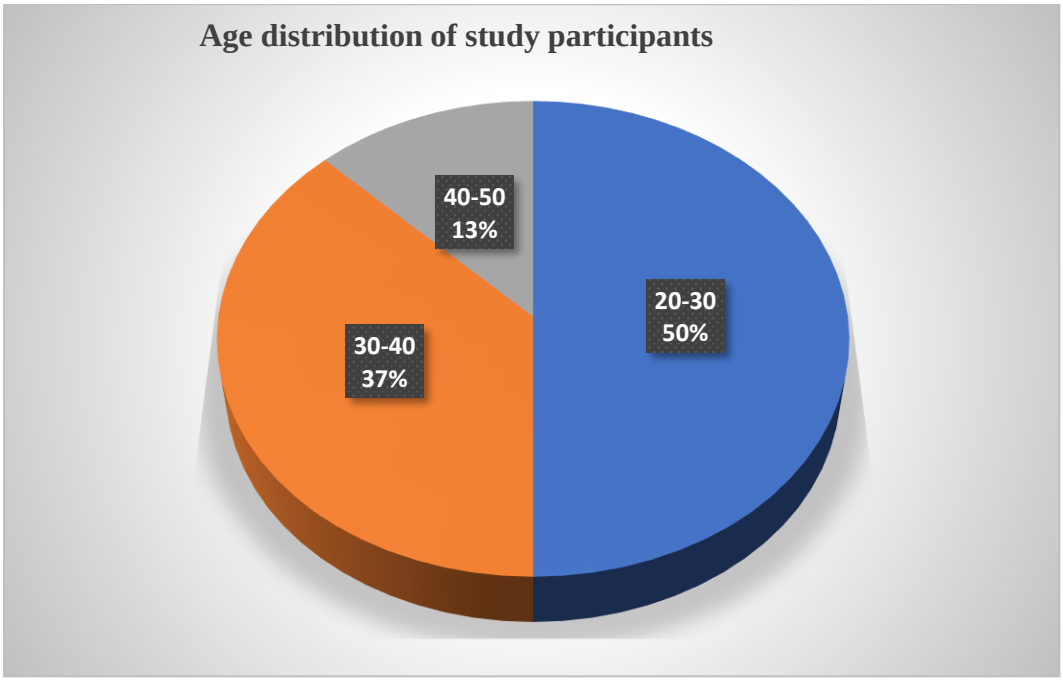


Chart 1: Age distribution of the participants

As can be noted from chart 1 and also as previously mentioned in section 1.2.1, Aldakhil (2017) reported that "65 percent of the Saudi population is under the age of 29". A more recent statistic shows the increase of the Saudi youth group:

> Saudi Arabia currently has a total population of 34.54 million. Of that population, 25 million or 72.38% are active social media users. Saudi youth make up to 75% of the total Saudi population. This majority has been the game changers which has thrust Saudi Arabia to the top position on the global social media charts (GMI, 2020).

However, the sample in this study does not represent Saudi society as a whole because of the small number of participants. All the same, it sheds light on some sociolinguistic aspects of the DMC of bilingual Saudis and it offers a window into how people actually utilise DMC to present their online personas. This may be seen by the adoption of online identities, which somehow differ from those displayed in other contexts.

Regarding the education level, six of the participants have Bachelor's degrees, one has a postgraduate degree and another one has a master's degree. Regarding English proficiency and language preferences as self-reported by the participants, four of the participants consider their English competence as advanced, three are intermediate and one evaluates himself as a beginner. The question in the online questionnaire about the English proficiency was asked to explore whether there is a correlation between the language proficiency of the participants and their language choice. Pie Chart 2 shows the proficiency data of the participants.

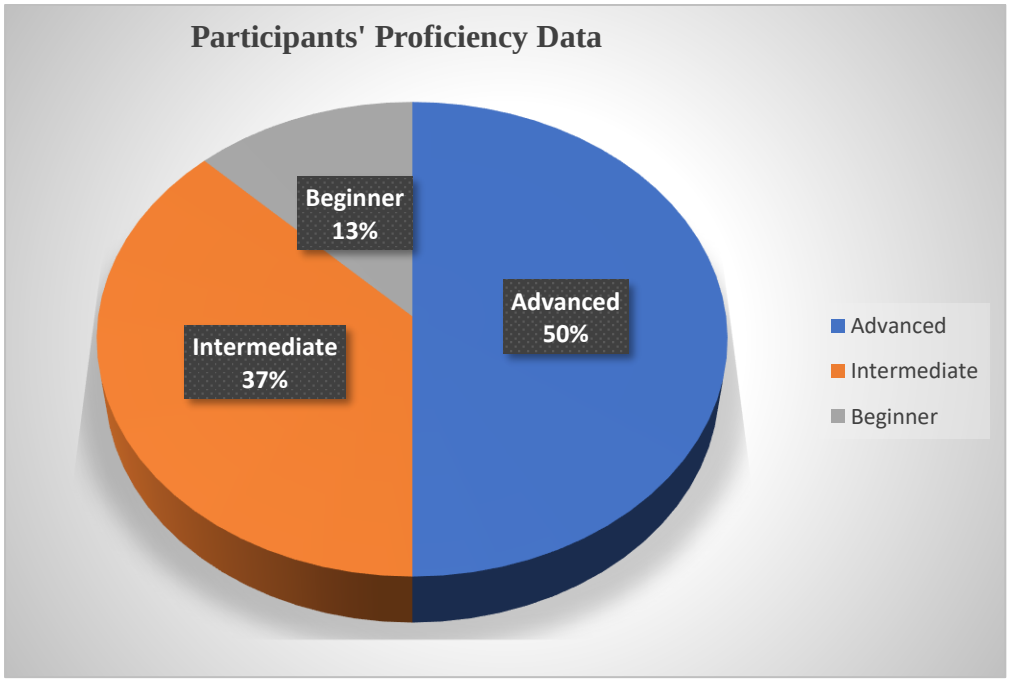


Chart 2: Proficiency data of the participants

However, the data shows no correlation between English language use and self-reported English language proficiency because although most of the participants indicated that their English proficiency was intermediate and they had no preference for either online language (Arabic or English), their actual posts were mainly in Arabic. This suggests that language use was not about language proficiency but, rather, about language choice (see interview section and actual posts in Appendix 7).

4.3 Findings Relating to Research Questions

4.3.1. Research Question 1: What CS practices emerge in online communication by Saudis? For what reasons?

Most CS studies in the last few decades have analysed it on an oral basis and not enough consideration has been given to online written CS, especially switching between Arabic and English in Saudi Arabia. Most sociolinguistic research has studied CS between Arabic and English in Arab countries like Egypt (Kosoff, 2014) or general Arabic varieties such as Eldin (2014). Most studies conducted on any Arabic variety do not encourage generalisations to be made on all other Arabic varieties since each one has its distinguished characteristics and social identity. Hence, the core purpose of this study can be considered unique because it is visualising an undiscovered angle of a neglected sociolinguistic active and growing practice.

CS practices are grammatical structures leading switching and the stylistic or conversational functions individual switches may achieve (see section 2.5). Community practices of CS may vary in relation to each other especially in terms of how particular grammars take precedence in terms of set of violable constraints (Bhatt & Bolonyai, 2011). The WhatsApp and Twitter data showed that CS is more frequent in WhatsApp than Twitter—CS found 43 times in WhatsApp while found only 19 times in Twitter— (see the following tables).

Table 8 Participants' frequency of collected posts

Name	Age	Gender	No. of WhatsApp chats	No. of Twitter posts
Rakan	49	M	19	11
Faris	36	M	27	3
Tariq	25	M	18	7
Amal	28	F	24	17
Rana	33	F	23	26
Maya	35	F	21	11
Noor	24	F	25	23
Dina	25	F	16	23

Name	Age	Gender	Educational Background	English proficiency	Preferred Online language	No. of WhatsApp chats	No. of Twitter posts
Rakan	49	M	BA	Beginner	both	19 12 voice-notes 5 Mono-Arabic 2 emojis 1 avatar	11 11 pictures 15 Hashtags No texts
Faris	36	M	BA	Intermediate	both	27 4 voice-note 9 Mono-A. 2 Mono-E. 12 CS 1 emoji	3 3 pictures 1 Hashtag 1 Mono-A. All participation are retweets
Tariq	25	M	BA	Intermediate	both	18 9 CS 8 Mono-A. 1 Mono-E. Idiom 2 emojis	7 2 Hashtags 2 Mono-A. 4 CS 4 emojis
Amal	28	F	PG	Advanced	both	24 3 CS 18 Mono-Arabic 4 emojis 2 Mono-English	17 9 Mono-English 7 Mono-Arabic 20Hashtags 8 pictures 1 video 6 mentions 10 emojis

Rana	33	F	PG	Advanced	both	23 3 Mono-E. 11 Mono-A. 27 emojis 4 voice-notes 3 CS	26 23 Mono-E. 2 Mono-A. 1 pic. 19 emojis 4 Hashtags 4 Mentions
Maya	35	F	BA	Advanced	both	21 5 Mono-English 9 CS 5 Mono-Arabic 4 emojis	11 10 CS Excessive emoji usage in one tweet 6 emojis
Noor	24	F	BA	Intermediate	both	25 13 Mono-A. 7 voice-notes 4 emojis 6 stickers	23 18 Mono-A. 2 Mono-E. 1 pic. 11 emojis
Dina	25	F	BA	Advanced	Arabic	16 8 Mono-A. 7 voice-notes 1 “ya stupid”	23 22 Mono-A. 26 emojis 2 mentions 3 Hashtags 1 pic.

Table 9 Participants’ demographics and frequency of collected data

Table 10 Word count for collected posts and chats

Participant	No. of Twitter posts’ word count	No. of CS words	No. of WA chats’ word count	No. of CS words
Rakan	No text-based posts	-	16	-
Faris	13	-	111	32
Tariq	61	8	98	23
Maya	262	38	187	44
Rana	223	184	61	12
Amal	125	47	80	7
Dina	304	1	78	2
Noor	216	46	74	2

The participants offered a number of reasons for this difference in use in the interviews. The first is that the participants consider Twitter to be a formal platform unsuitable for CS linguistic behaviour. For example, “when the setting is Arabic and the speaker is Arabic there’s no need to CS” (Rakan).

In addition, Noor shared a similar opinion: “I code-switch with few words but in Twitter, I always use standard Arabic”. Secondly, the participants feel freer when interacting with their close interlocutors through a private communicative platform. For example, Tariq

said: “I deal with WhatsApp as a speaking channel because I’m chatting mostly with my close relatives and friends so most of the time I don’t think before writing or recording”.

Thirdly, the participants prefer to use their mother tongue when publicly interacting. For example, Noor shared that “Twitter isn’t a chatting channel, so I’m just using it to share for example a proverb which is best delivered in my mother language because Arabic is very beautiful and expressive”. Fourthly, publicity on Twitter makes them feel observed, which might disturb their spontaneous linguistic behaviours. For example, “Twitter is different because it’s a public platform with millions of viewers so I think and consider each word before posting” (Tariq).

To sum up, some participants demonstrated how they viewed the usage of Twitter and WhatsApp: they considered Twitter as a public platform, which sometimes restricted their spontaneous and habitual linguistic practices. This contrasts with their perception of WhatsApp, which was largely regarded as a private forum.

The next section shows the data on the forms of CS practices on WhatsApp and Twitter.

4.3.2 CS Practices on WhatsApp and Twitter

In summary, the data revealed that the participants in this study share five main CS practices. Table 11 summarises these practices and shows the relevance between this study’s practices and the patterns found in the literature.

Table 11 This study's findings related to literature

AlAbdulqader	Herring's CMDA (2004, 2007)	Al-Wer (2013)	Tagg (2015)
Arabization	Code No mention of reformation	Grounding the data	N/A
Nonce Borrowing	N/A	Linguistic data/ linguistic system	N/A
Multimodality	Channels of communication	N/A	N/A
Quoting	Quoting	N/A	Attribute
Prayers	N/A	N/A	N/A

These practices are found in the data (actual posts). Uniquely, the present data introduces 'prayers' as a non-CS practice that has not been reported in the literature. This may be due to the fact that Arabic is the language of the Qur'an and Muhammad, the Messenger of God, and "it has an even greater effect on its speakers than other languages have on their speakers" (Desmond, 1968: 14).

The data were analysed using the following steps (see section 3.6):

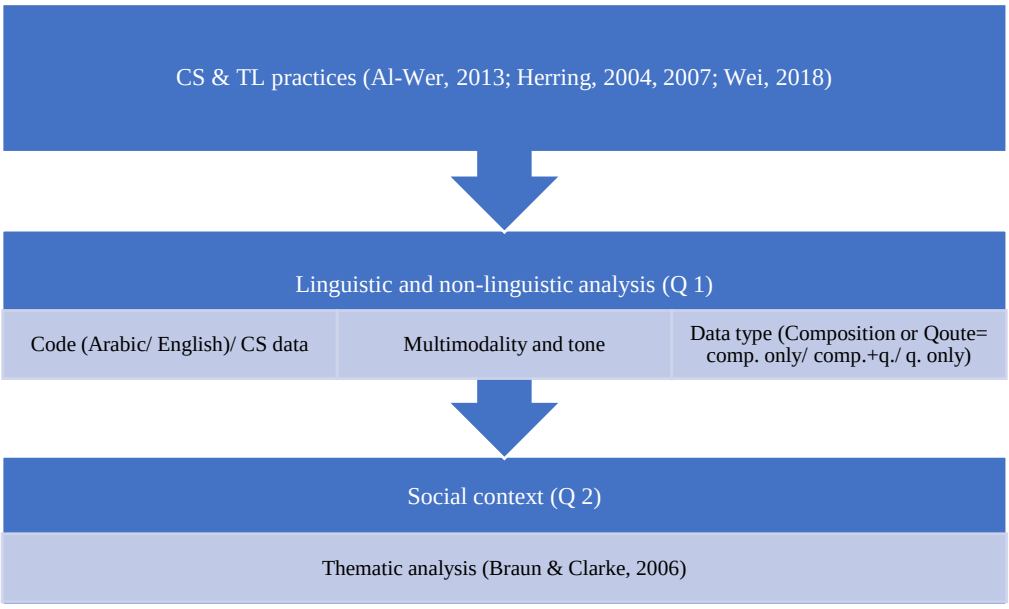


Figure 9 Data analysis model

The steps analyse data in two stages:

Stage one is concerned with the actual structure of the data: choice of language, choice of multimodal tools, additional aspects such as quotes, prayers and nonce borrowing. When looking at CS distribution, this is in line with Al-Wer's approach for the CS data – "grounding the linguistic data" (2013: 256) has been implemented in two ways. The first is by linguistic analysis in order to understand how these words are originated. In other words, this involves reverting each word to its original form by taking off all prefixes and suffixes. The second way is by linking the words to the context in which they are used.

When applying some principles of CMDA (Herring, 2004, 2007), the linguistic practices are concerned with data type, i.e., whether the data are composed, quoted or a combination of both. In addition, CMDA considers the tone of the data based on the choice of words and the multimodality used, for example, whether it is formal or informal, playful or serious (see section 3.7 on relationships between interlocutors).

Stage two is concerned with the social context, which explores how the interlocutors deploy these linguistic and non-linguistic choices they exhibit in the first question for communication purposes. This will be tackled by TA for two reasons: triangulation and in order to investigate the data thoroughly.

4.3.2.1. CS Practice 1: Arabization/Alternation (Muysken, 2000)

Contact between cultures causes speakers to borrow from each language for many purposes such as the lack of such terms in the original language. With regard to English and Arabic (the foci of the current study), both languages have a history of borrowing words from each other despite the glaring differences between the two languages' structures and phonetics (Chejne, 1969). The borrowed words may undergo a process that is called "Arabization", which means to "make Arabic in form, style, or character" or to "bring under Arab influence or

control" (The American Heritage Dictionary of English Language, 2009) (for more details see section 2.1).

Data keys

For the purposes of data analysis, the English words are in italics, English words written in Arabic letters are underlined and Arabized words (originally English words with some Arabic changes in the form) and words with grammatical changes are between brackets.

Extract 1: Tariq's WhatsApp with Faris

This WhatsApp chat is between Tariq (M/25) and Faris (M/36). Tariq's chat is in green and Faris's is in white.

Tariq: Hey boy, what is for dinner?
Faris: We'll hire a food truck, I tried their burger, it is tasty.
Tariq: I'm afraid you'll bring something *low class*.
Faris: Don't worry, it is good. {bafarwerd lkm accounthm = I'll forward their account to you} have a look at their photos and regarding the flavour I guarantee them.
Tariq: How about {saucathum = their sauces}, it is the most important thing in burgers. Do they have fries and soda, or what is their system?
Faris: Yes, a full meal, all what you have to do is to sit and eat.
Tariq: I want to ask you about the play station in the room, does it work?
I want to {akariatly account = I want to create an account for me} till you arrive.

Tariq: also let me know how much the share I shall pay for this month is.

In this exchange, Faris and Tariq were discussing their dinner plans. Faris was the one in charge. He chose to hire a burger food truck (mostly street food that is common nowadays in Saudi Arabia). The idea of the food truck is that it is hired for a period of time to provide a meal for the guests. It can be hired to be brought into a house or wherever the occasion is. The food truck is operated by specialised people so the guests can just enjoy the meal cooked by specialists. Tariq appears to be doubting Faris's choice as he describes it as "low class" but Faris was confident about his choice for dinner and did not show any hesitation because he knew that Tariq was not serious (referring to the playful tone). For example, Tariq used the phrase "low class" to tease and because Faris was aware of that, he proposed that Tariq should look at their account because he was confident that he would like it. This seemed clear when Tariq gave his assent to Faris's choice and asked for the share of the cost he had to pay.

The linguistic practices in this chat are completely text-based, including both codes (Arabic and English with no channels of communication). No quoting is detected in this extract. In addition, because the chat is between two friends, the tone is informal, playful with some jokes, casual and friendly (see section 3.7 on relationships between interlocutors). The choice of code here is Arabic in its Arabic form and Arabic in its Arabized form. It is noted that some words used by both participants are basically English. First, *saucathum* has been Arabized by adding the (at + hum) suffixes, which means changing sauce from singular to the Arabic plural form by adding [at] and then adding the possessive pronoun 'their' [hum]). In Arabic, the possessive pronouns are attached to the word. These types of words have been used twice as in accounthum = their account and saucathum = their sauces. Second, English words are used in the Arabic verbing form as in *bafrwerd lk* = I'll forward to you, where (ba) in colloquial Saudi Arabic means I'll/I will). Another example is *akreate ly account* = create an account for me. In the latter example, the participant started his CS by adding the letter 'a' to 'create' so

that he could make it Arabized. It is worth mentioning that the word ‘forward’ does not have an exact equivalent in Arabic, thus the participant simply decided to Arabize it instead of producing a new word. The only available alternative is ‘send’, which does not carry the same meaning as ‘forward’. It is also important to point out that such words are one of the computer functionalities created by English pioneers, similar to create, access, save, respond…etc. They have now become universal. This draws our attention to a reflective question, does international vocabulary fall within English? Can we say it is ever borrowed? (These queries will be considered in the discussion chapter).

Furthermore, the word ‘create’ for Muslims is an exclusive term for Allah (God) which is forbidden to be used for any other human usages. It is noteworthy that the participants chose to use this term in English as if it is a separate word to the divine Arabic alternative. The participants preferred to use it in English instead of using a general word like ‘make’ because it does not sound accurate and in Saudi Arabic it may sound like pidgin (a mixture of Hindi and Arabic), which is considered a simplified form of Arabic with reduced vocabulary and grammatical structure. This type of CS is due to “factors independent of particular speakers and particular circumstances” as described by Bourdieu (1997) and the associations of each variety with a particular context, (Gal, 1979, cited in Gardner-Chloros, 2009). Comparably, early research has shown a moderate agreement on admitting modern loan words if no satisfactory Arabic equivalent or translation can be found, as proposed by Speers (1959: 34):

> Many writers who are willing to accept foreign words into the language also urge that they should be shortened or otherwise altered in spelling or form in order to make them conform to the standard patterns of Arabic morphology.

To sum up, in the previous extract, CS was used in three ways: first, there was an English insertion written in English, such as “low class”; second, there were English words written in Arabic without any change like “food truck, play station”; and third, there was Arabization, which is changing English words to sound like Arabic forms, as in *bafarwerd lk* and *akreat ly account*.

The participants were both men and this increased both interlocutors' spontaneity as they indicated in the interviews that they only rethink what they write if interacting with the other gender in order to prevent misunderstandings like flirtation or disrespect. As Tariq indicated, this is the norm in the Saudi culture:

> I'm careful in using some words and emojis according to the gender especially with those who I don't know well in WhatsApp or Twitter because viewers are from various backgrounds so I don't like to be misunderstood specially in Saudi Arabia.

In addition, this chat is an interaction between friends, which facilitates making jokes as an indication of certain social relationships such as establishing and supporting friendship (Thurlow & Brown, 2003) and retaining social networks (Pennington & Hall, 2014) (see section 2.5.2). Thus, it is considered a typical interaction between two friends who are familiar with the appropriate language, CS, and choice of words that are acceptable for both and which serve the flow of the conversation. They both realise each other's English proficiency and the way that the other interlocutor thinks and comprehends, which facilities the conversation and the replies in a way that relieves the other interlocutor. This supports the participants' view of WhatsApp chats as spoken conversations, as they indicate in the interviews (this notion will be further discussed in the discussion chapter).

From a TL perspective, all the words, either borrowed or Arabized, were inserted in the conversation blend to maintain the flow. The interlocutors chose these words consciously to construct a complete language repertoire. The extract presents an example that language has no fixed limits and is continuously in flux because such words like "*akreat ly, afrwerd lk, accounthum*" have recently been developed by Arab users to fill a need in their daily lives.

Extract 2 from Noor's (F/24) WhatsApp with Dina (F/25)

Noor's part is in green and Dina's is in white.

Dina: I've been there twice.
Dina: Did you find anything?
Noor: I remember I (mkapcherah = captured) a post about the best places.
Noor: But can't find it.
Dina: Two stickers from two different Saudi artists one is waving ok and the other seems shy and confused.
Dina: No.
Noor: I'll keep searching.

In this extract, Noor and Dina are trying to find information about a place to visit. Dina has been to that place twice and Noor is telling her that she has "captured = saved" (a picture from the internet) about it but could not find it. Dina posted two stickers: one shows agreement, while the other shows confusion and embarrassment.

According to the analysis steps, the linguistic practices in this extract are a combination of text-based ones and channels of communication or multimodality (stickers of Saudi artists). All the text-based chat is in Arabic except one English word, "post", written in Arabic letters and one Arabized word "*mkapcherah*". The multimodal additions here are the stickers used by Dina as a reply to one of Noor's statements. The first is of a Saudi singer waving ok as a reply to Noor's statement "I remember I (mkapcherah = captured) a post about the best places". The

other is of a Saudi actor who seems confused and embarrassed as a reply to Noor's next statement "but can't find it". Moreover, no quoting is detected in this extract. In addition, the tone is considered playful, casual and friendly.

The Arabized word in this extract is *mkapcherah*, which is derived from the word 'capture' but it has been reformed into an adjective feminine form with the suffix (ah) – the Arabic masculine form does not include that suffix at the end and would be *mkapcher*. Both CS words (capture/post) have Arabic alternatives but they are considered Standard Arabic, which is not usually used in informal chats between friends. This shows that the participants prefer to use common English words that are considered "the norm" in the e-community, rather than using the Standard Arabic word; this corresponds with the notion of being de-individuated (Joinson, 1998, aforementioned in 2.6.2). This means that the participants sometimes choose to use the common English word over the Standard Arabic equivalent because the latter is used by the older generations or people who are less familiar with e-communications norms. This is the effect of the group on the individual (de-individuated) as a feeling of belonging and blending in with online communities.

The participants' conversation structure is one-to-one private WhatsApp messaging, which can be seen only by the interlocutors. In addition, this chat is between two women, which promotes spontaneity, comfort and casualness as they indicate in the interviews that they only revise their posts if interacting with the other gender to prevent misunderstandings like misinterpretations of some words, or to avoid behaviours that are common among one gender but which seem either impolite or ambiguous to the other gender. From a TL perspective, the interlocutors in this extract employ their linguistic and non-linguistic resources where they think they fit better as in the use of the stickers. As they both indicated in the interview that such online affordances serve the conversation sometimes better than words and they also look

trendy which confirms that while interacting, the interlocutors are not just inserting words or affordances, they rather make and take decisions for the sake of better communication.

4.3.2.2 CS practice 2: Nonce borrowing: The use of English words with no change

Extract 3 from Noor's (F/24) WhatsApp with Faris (M/36) – they are work colleagues

Noor: How was the presentation?
Faris: Honestly, *no offence* too weak.
Noor: So, do you think I haven't gained any *credit* .
Faris: You haven't clarified what makes it better than what is available on the market or its *value*.
Noor: .
Faris: Even the way you presented it was *silly*.
Faris: Simply, *you were such a naïve*.
Faris: the text was *below average*.

In this extract, Faris and Noor are work colleagues (Faris is a senior employee and Noor is a freshman). Noor is asking about how she performed in the presentation in front of the other employees. Thus, Faris is evaluating her performance. Faris's part is in white and Noor's is in green.

The linguistic practices in this chat are a combination of text and multimodality. The first practice is the Arabic text. Second, there are English words written in Arabic letters such as "presentation". Third, there are English words and phrases written in English (nonce

borrowing). Fourth, there is multimodality (emojis), used only by Noor. The English words and phrases were used in this WhatsApp chat both morphologically and pragmatically–from a TL perspective– because the users are aware of each word's usage in terms of grammar and function as well, which shows an advanced English language competence. It allows the users to insert the English words correctly in their morphemic spaces and to complete the meaning by CS between both Arabic and English.

The tone differs, because it sounds formal and professional from Faris's side and less formal from Noor because she uses emojis, which is unusual in professional conversations. No quoting is detected. Most of the CS in this chat is by Faris, who chose to switch to English to make his criticism less negative. This can be seen when he starts his conversation with "no offence". He indicated in the interview "with women-colleagues, I don't like to be questionable and I'm careful in dealing with them".

There are some social indicators that suggest a need for decency in the excerpt. Firstly, the participation structure is one-to-one private WhatsApp messaging. Secondly, the conversation is between a man and a woman, which makes the chat less casual, although both interlocutors are co-workers. Faris uses a formal tone to avoid ambiguity as he indicated in the interview that when interacting with the other gender, he uses a formal language and no visual aids. Moreover, he CSs to English words and phrases to negotiate Noor's weaknesses without being aggressive because as he stated in the interview, CS is better to deliver a less negative impact. Noor seems to accept his criticism and to make the conversation sound less harsh and softer at least from her side, she CSs to English and uses emojis. On the other hand, Faris used CS to sound more practical, especially in the parts that comprise the critique.

Extract 4 from Maya's (F/35) tweets

Maya: *a girl with limits is* well raised *not* complicated.

The above tweet is from Maya's Twitter account, sharing publicly her opinion about the wrong judgement of girls with limits in behaviours and attitudes. She criticises people who judge those girls and tag them as complicated girls when in her opinion, she believes that a girl with social limits is well raised and not, as commonly thought, "complicated".

The linguistic practices used in this post are only text based. Quoting may be expanded in this post further than just quoting references, it may also include common ideas and stereotypes that are popular and well known in some societies, as described by Spears et al. as "it provides an alternative to more cognitive approaches that regard stereotyping primarily as a bias produced by the limits of individual information processing" (1997: 133). Thus, Maya in this post has quoted a stereotyped phrase from her context. The tone can be considered formal since it is employed to highlight a disputed opinion. The codes are Arabic and English, yet the CS is used functionally and pragmatically to reach a wider audience and to show the English competence of the interlocutor and her ability to use it in this phrasal way. In this chat, the participant is a woman and she chose to post about women's concern and how society considers a specific type of them. She shows an attitude to this by correcting the common stereotype and adding her voice.

By choosing this combination of linguistic and cultural mix, Maya as a bilingual, blends the two ideas in a very brief and straight to the point sentence. This shows an advanced level of consciousness of what some societies might believe from an eastern point of view that "a girl with limits" presents a type of failure of being free from complications that such societies usually force on women. Yet, she tried to correct that by mixing the two languages to show

that although I am bilingual with both cultures “the conservative and the free society”, my opinion is that those social limits show me as from a well-raised background, which stresses the flexibility of multilingual attitudes from a TL angle.

4.3.2.3. CS Practice 3: Nonce Borrowing: The use of English words written in Arabic letters

Extract 5 from the researcher’s WhatsApp with Maya (F/35)

Maya: It was nice and so class.
The researcher: Who came?
Maya: Sara was in a cute dress.
Maya: and Nora is full of (kayatah = cuteness).
The researcher: Agree these two girls are so nice.
The researcher: Did you tell Amal I was excited to come but could not make it.
Maya: Yes.
The researcher: Thanks.
Maya: *Any time*.

This WhatsApp chat is between the researcher and Maya (friends) about a party that Maya attended but the researcher did not. The researcher’s part is in green and Maya’s part is in white.

The linguistic practices in this chat are text based. The tone is casual and informal. CS is done in three ways in this chat. Firstly, English words are written in Arabic letters such as

"class, cute". Secondly, English words are written in English, like "anytime". In this chat, Maya preferred to use the word "class" in English although there is an Arabic substitute because the Arabic word is Standard Arabic and more common among an older age group, while the younger generations prefer to CS to the English word since it is more popular. Thirdly, the word *kayatah* is derived from the English word 'cuteness' but reformed into an Arabic noun. The Arabic alternative is Standard Arabic and less common both in spoken and colloquial online language. It is noted also that the word "cute" has been reformed into another common word (akyat) which means the comparative word (cuter). This form is more common in Snapchat and Instagram when commenting on photos by (is there cuter).

This chat is between two women friends. Thus, the flow of the conversation is smooth. Maya chose specific English words *"class, cute, cuteness"* but the other interlocutor (the researcher) did not use any English words in this chat but she is motivated at the end of the conversation to switch to say "thanks" in English written in Arabic, to follow the flow of the conversation and to add a touch of informality.

Extract 6 from Tariq M/25 tweets

This extract is translated from Arabic "a moment of silence for our brother who is stuck in the 'friend zone'". In this tweet, Tariq is ironically grieving one of the tweeters by commenting that they have to announce a moment of silence to console him for being stuck in the friend zone and not being able to move forward which means that this person was in love with someone but rejected and positioned just as a friend.

The tweet is text based with no multimodality. The tone is playful since the purpose is sarcastic – the writer is making fun of such feelings. It is noted in this tweet that CS has been

used linguistically “friend zone” and pragmatically “a moment of silence” as this concept is not familiar in the eastern culture, specifically Saudi Arabia which emphasizes the TL concept in the conscious usage of multi-languages and multicultural entities that blend all in one for sense making. This draws our attention to the possibility of considering this pragmatic CS as quoting.

In this tweet, Tariq seems to be an aggressive and sarcastic person who underestimates these kinds of feelings, especially as he has pointed to another man’s post. We do not know if they are friends or if this attitude is acceptable among their community. In other words, Tariq used a sarcastic language to make fun of this man’s feelings about friendship, as if he is implying that this person is a kind of soft man. This is usually considered embarrassing in the Saudi society because men often show pride in their manly behaviours, which for some communities should be tough. He CSs in two ways as mentioned previously (linguistically and pragmatically). It is noted that he posted this comment although he believes that Twitter:

> is different because it’s a public platform with millions of audiences so I think and consider each word before posting. I try my best to post and comment clearly without hurting anyone’s feelings (Tariq).

Yet he was sarcastic in this post, which contradicts his statement. Moreover, in the interview, Traiq indicated that he CSs as a habit, although:

> new men colleagues or men communities who are not used to CS, they make me feel that CS is a type of show-off or a feminine linguistic behaviour which is not appropriate for men.

Thus, his comment is unclear in relation to what he shared in the interview. Does it show an evolution in what some community's men think about CS? Can this be taken as common social appropriateness between friends for establishing and supporting friendship and? Since Tariq indicated that he is keen not to hurt others’ feelings, it might be assumed that he is a friend of the receiver and that he indeed negotiated this post before sharing it publicly and was sure that it would not be taken negatively or considered as bullying.

4.3.2.4 CS Practice 4: Intra-sentential and Inter-sentential CS between Linguistic and non-linguistic (Multimodality)/Sociolinguistics and Stylistic *(Crystal, 2005)*

Extract 7 from the Maya's (F/35) WhatsApp conversation with Dina (F/25)

Maya: ok
Maya: Are you up for a coffee shop tonight or do you prefer to watch a movie.
Dina: Good idea.
Dina: But how about going to the mall.
Maya: Ok, but I can't guarantee myself maybe I'll spend all the savings in the card 🤦.
Dina: 😂😂😂😂.
Dina: Don't be afraid I'll make control on you.
Maya: 👍.

Maya and Dina are friends who were trying to plan something to do for that night. The above chat is a combination of linguistic and non-linguistic (multimodality) practices. The type of multimodality practice in this chat is emojis. The tone is casual and informal because it is a chat between two friends about going out.

The conversation structure is one-to-one private WhatsApp messaging. Both interlocutors are women, the atmosphere is comfortable and the flow of the conversation is smooth. Even the synchronous timing of the conversation stimulated the interlocutors to post in the way that suited each of them, to keep the chat going. It is true that all the English words written in Arabic in this extract "*coffee shop, movie, mall, card, control*" have alternatives in

Arabic, yet both interlocutors chose to use them in English and write them in Arabic to situate themselves in a specific position by following a similar style although the friends are not from the same age group– being a generation apart. By using the same chatting style, they agree that they are familiar with the online chatting norms that keep the conversation smooth and comprehensible.

Extract 8 from Tariq's (M/25) tweets

The first: On the contrary, you can tell him what you have said. Why do you not admit something that can make you and him happy. The good word is a charity ❤
Tariq: Our emotions are tough; we cannot express except from behind the screens 😒.

The above conversation is between Tariq and another tweeter on Tariq's Twitter account. They are both men. They talk about expressing one's emotions and that it is better to show these emotions to whomever is concerned to make them happy.

Although it is a Twitter post, it is hetrogloss because it is a reply to someone's tweet. In this Twitter thread, both interlocutors combined text-based and multimodality practices. The emoji in each post represents the multimodality. There is a quote in the first post from Prophet Mohammad (peace be upon him) saying "The good word is a charity". The tone can be considered formal since it is a piece of advice in the first post and an honest declaration in the second. The code or language used in these posts is colloquial Saudi Arabic (except the quote) and the CS is between text and multimodal practices. In the first post the emoji of a heart is added at the end of the post to show sincerity and a sad emoji is added to the end of the second

post to show the feelings of Tariq about the reality behind his statement “we cannot express except behind the screens”.

The structure of this thread is a public post between two men who try to discuss how important and healthy it is to express one’s emotions. Tariq used the word “we” and it is not clear who he is pointing to with this – we as men or we as Saudis? Through this statement he pointed to himself as a member of a bigger group who share the same attitude towards emotion expression. Moreover, he indicated that he and that bigger group are only able to express their emotions from behind screens, which shows that his online persona is more open, more expressive and freer than the offline one (this notion will be expanded in the discussion chapter). It is noteworthy that Tariq’s Twitter account is identified under his real name which raises a question: how does it make him feel more expressive if his real identity is still identified? This raises a question about Tariq’s ability to be more expressive online than offline although his account is identified and everyone can view his expressions.

4.3.2.5 CS Practice 5: Quoting: Qur’an Verses

Classical Arabic is the language of the holy Islamic book the Qur’an, which was introduced to Arabs more than 1,400 years ago and is the language in which the literary traditions of the past have been documented and preserved until the present day. It is considered as the main vehicle of Islamic culture. It has undergone no change throughout its history (Cachia, 1972). Qur’an verses in this study are considered CS because it is agreed at the beginning of this project that code includes all means of communication, either a language, a variety or multimodality. Thus, when a speaker chooses to use Qur’an verses in the message, there is a purpose for that choice and it is determined by the user that Qur’an language is the best vehicle to deliver the meaning. Also, they are used not as written texts but as photos, so

they can be considered as CS between online affordances. Alternatively, in some tweets the participants just used hashtags and Qur'an verses as images.

Extracts 9/10/11 from Rakan's (M/49) tweets

The above extracts are tweets quoting from the Qur'an, which is not uncommon in Saudi WhatsApp chats. The literature has shown a mutual relationship between religion and media, where sometimes internet users employ media as a vehicle for Islamic teaching. The participants are aware that media is an entity used to broadcast information including religious information. In the era of the internet, the association between the media and religion is complex because the "internet does not merely accommodate religious messages and even the media in turn produced religious ways and brought new values in religion or provides a new theology" (Kort, 2006: 363). Social media provides a variety of content that allows people to search for religious information. Additionally, social media in some situations represents the religious practices by the Islamic community including the connection between the Holy Qur'an and Muslims in Saudi Arabia. We can see the relationship of Saudi Muslims with the Qur'an in the public sphere by observing their interactions on social networks, using hashtags on specific religious occasions like Fridays (Jumu'ah) and Islamic Eid. These are more likely to be shared publicly.

The practices in Rakan's tweets are a combination of linguistic and non-linguistic use. He inserted images that consist of Qur'an verses (in Classical Arabic) presented in images (multimodality) that have colour effects and a hashtag for each post (#reminder, #seeking #forgiveness). Hashtags are a Twitter affordance used to share a trending topic with other tweeters and to reach wider audiences by sharing hashtags to create relevant threads which indicates from a TL perspective that language users implement all the available linguistic and semiotic resources they have to achieve their communicative needs. The tone is formal as they are all Qur'anic quotes.

4.3.2.6 CS Practice 6: Prayers (Du'a') and Religious Heritage

Arguably, this is a unique practice that has not been found in the literature. Turner Mehdi states that "the Arabic language is an inseparable part of Islam" (1978: 109). This status of Classical Arabic, which is the language of the Qur'an, can be detected in the rich and varied body of religious expressions that shape a unique characteristic of the Arabic language, including *insha' Allah* [God willing], *alhamdulillah* [Praise be to God], *masha Allah* [It is the will of God] and many others. The Allah lexicon is important linguistically, culturally and religiously, all of which shape the cultural and linguistic diversity as inseparable parts of the same Arab Muslim identity. As Desmond (1968: 14) explains, "[t]he Arabic language is more than the unifying bond of the Arab world; it also shapes and molds that world". Since Arabic is the language of the Qur'an and Muhammad, the Messenger of God, "it has an even greater effect on its speakers than other languages have on their speakers" (ibid, 1968: 14).

Comparably, Gershon (2010) proposes the notion of "media ideologies" which is "the set of beliefs that shape, and reflect, their use of digital technologies". As Gershon (2010: 284) reminds us, media ideologies are "multiple, locatable, partial, positioned and contested". These two notions are obviously displayed in the current study data, where the power of the Islamic culture of the participants appears in their tweets, especially when actually there was no specific

message to deliver. Rather, the post is a type of a religious tweet or reminder that indicates the participant's online existence (as will be further discussed in the next chapter). Moreover, it may reflect the participants' current situations or the aim to elicit more likes and retweets by provoking the readers' religious tendencies. The following extract shows the role of the Islamic-Arabic heritage on some participants' online choices.

Extract 12 from Noor's (F/24) tweets

Omar bin Alkhattab one of Prophet Mohammad's – (Peace be upon him) – friends said: "The oppressed people's tears are just water in their eyes but for Allah they are thunder storms hitting the oppressors".

The post is text based and the tone is formal because it is a quote from the Islamic heritage. Noor is quoting an Islamic inherited saying to prove and support her point of view, which is the rejection of injustice. It is a type of reminding and warning as a characteristic of the Islamic teachings. For those who choose to express their views publicly, sometimes they prefer to quote a reference to avoid arguments and to evidence their opinions in an un-negotiated way because such teachings are sacred for Muslims.

Extract 13 from Noor F/24's tweets

“God, give us wisdom and the good comprehension. God give us the honesty in the other life. God give us the truthfulness and the sensible opinion. God give us the intelligent management”.

In this extract, Noor quoted some prayers from the Qur’an as these are the prayers of some prophets. It is a text-based tweet inserted into an image, the tone is formal and the language is Standard Arabic. Through this post, Noor positioned herself as a member of a bigger group, with the notion of belonging to the Islamic group to show her religious side because online interaction is more than language using, it is rather making and taking stances.

4.3.2.7 CS Practice 7: Quoting: Poetry

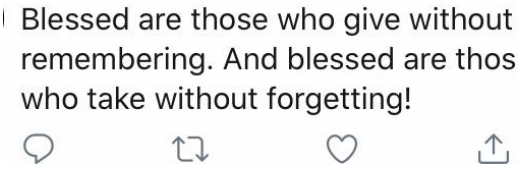
The literary heritage of a nation is a vehicle of its culture, representing aspects of its values and beliefs. Thus, poets and writers are aware of their nations’ literary traditions and therefore they develop these ideas into poetry and prose to be added to that authentic heritage (Boullata, 1983).

Extracts 14/15/16/17 from Noor’s (F/24) tweets

13/ “Your eyes are my disease and test and I am the loving tested”.
14/ “I always get to where I want to, but I get there tired. Tired to the extent that I cannot be happy. I just want to rest”.
15/ “Either you are full of words so you speak excessively, or you are full of emotions so you get silent”.
16/ “Do not be sorry about the treachery of time as long as dogs dance over lions’ dead corpuses. Do not think by their dancing, they overpower their masters. Lions are still lions, and also dogs are still dogs 🔌”.

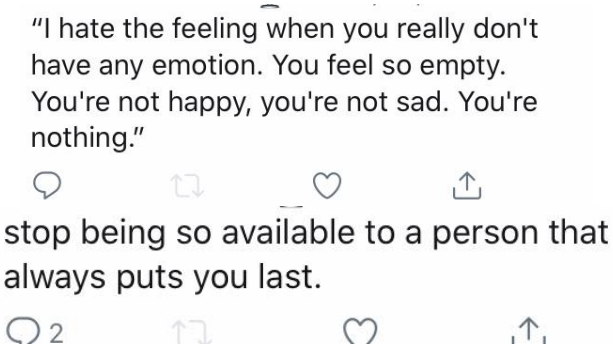
All the above tweets are text based, except the last one which is combined with an emoji. Noor chose to quote these poetic selections in Classical Arabic. The tone is formal and all the quotes are serious. Some of them show emotions and others show wisdom. In only one of these quotes Noor added an emoji (🤌). With these quotes, Noor shows the erudite side of hers and she shares some of these selections publicly to show her taste or mood. She stated in the interview, "I express myself as I like".

4.3.2.8 CS Practice 8: Quoting: Proverbs



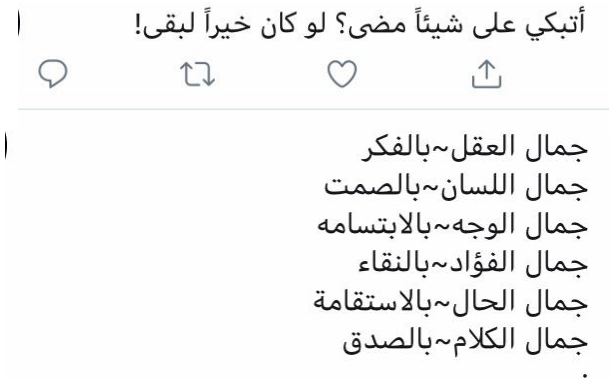
Extract 18 from Rana's (F/33) tweets

In extract 18, the participant quoted an English text-based proverb that has a serious tone with no multimodality. She chose a concept that might be her own attitude towards giving and taking. Thus, it can be inferred that she footed herself as this type of person.



Extracts 19/20 from Noor F/24's tweets

In these two extracts, Noor quoted two proverbs in English. The tone is formal and no multimodality is used. She openly and publicly expressed her mood or reaction towards a specific incident. In the second excerpt, she expressed her rejection to these types of feelings, which reveals her self-pride and high self-esteem.



Extracts 21/22 from Dina's (F/25) tweets

Extract 21: "Do you cry over something passed? If it was good for you it'd stay."
Extract 22: "The beauty of the brain is in thinking...
The beauty of the tongue is in the silence...
The beauty of the face is in the smile...
The beauty of the heart is in pureness...
The beauty of life is in commitment...
The beauty of talking is in honesty..."

In these two extracts, Dina quoted some proverbs in standard Arabic. The tone is formal and no multimodality is used. In the first one, she expressed her faith that everything happens is for the good of one's self. In the second one, she showed her wise side that sees the inner beauty in everything.

According to Hodsdon-Champeon (2010), proverbs are classified as a type of intertextual reference falling into the category of "cultural texts", along with common phrases. Choosing a proverb and using a formulaic language, expresses a general truth based on common sense or experience; it is a piece of advice that can be applied to everyday life. Moreover, distinguishing it from other kinds of quoting, Bublitz (2015: 1) includes proverbs in the category of what he defined as "pre-patterned sequences" (together with slogans and routine formulas).

4.3.2.9 CS Practice 9: Quoting: Song Lyrics

Extract 23 from Rana's (F/33) tweets quoted from Passenger's song (Let her go)

In the above quoted extract, Rana quoted English song lyrics and rewrote them with no multimodality. These quotes show either the current mood of the participant or a message about a specific incident or to someone.

Extract 24 from Dina's (F/25) tweets/a part of a Lebanese song "If I have a flaw, isn't it a shame to tell others about it 🎶🎼"

In this extract, Dina quoted a colloquial Egyptian Arabic song adding two musical emojis. Although the code is colloquial, the tone is formal because the theme is blameworthiness. Dina showed her rejection of this type of behaviour as if she is sending a message publicly to the readers that it is unacceptable.

Extract 25 from Noor's (F/24) tweets/a part of a Saudi song *"you are the sweet smile, it's a lie if I can get away from you, you are my lifetime promise ❤"*

In the above extract, Noor quoted song lyrics and rewrote them with one heart emoji. The quote is either showing the current mood of the participant or it is a message about a specific incident or person.

To sum up, the aforementioned practices are listed in the following table, showing the frequency of each practice from each participant's collected data.

Table 12: Summary of CS practices and frequencies by participant

Practice/ Participant	Rakan (M/49)	Faris (M/36)	Tariq (M/25)	Amal (F/28)	Rana (F/33)	Maya (F/35)	Noor (F/24)	Dina (F/25)
English words/No change	**X**	**7**	**4**	**10**	**25**	**12**	**3**	**1**
English words written in Arabic letters	**X**	**6**	**11**	**4**	**2**	**22**	**2**	**1**
Arabization	**X**	**2**	**4**	**x**	**1**	**2**	**x**	**x**
Intra-sentential CS between linguistic & multimodality patterns	**27**	**8**	**7**	**25**	**36**	**12**	**30**	**26**
Qur'an verses	**3**	**x**	**x**	**1**	**x**	**X**	**1**	**x**
Prayers (du'a')	**1**	**x**	**x**	**2**	**x**	**X**	**3**	**2**
Proverbs	**X**	**x**	**x**	**x**	**2**	**X**	**4**	**3**
Poetry	**X**	**x**	**x**	**x**	**x**	**X**	**2**	**x**
Song lyrics	**x**	**x**	**x**	**x**	**3**	**x**	**3**	**1**

In this context, it can be seen that intra-sentential CS between linguistic and multimodality practices features highly. This is due mainly to the informality and closeness between the participants. This is followed by the use of English words/No change. There is also a significant usage of the Arabization practice. Qur'an verses do not feature highly, probably owing to their sacred nature.

To sum up, the findings show that multimodality (audio and visual) excessive usage as seen in the above table is used by men and women for the purpose of filling the communicative social purposes. Furthermore, the participants reveal a high ability to manipulate these online affordances for expression purposes. Also, these findings highlight that multimodality is considered a basic communication tool in the written DMC where in some posts, the participants rely solely on these affordances without any actual written contexts which means that multimodality is an online comprehensive language that can substitute the traditional language in some cases.

Other CS findings such as nonce borrowing either written in English or Arabic reveal that these foreign words become common to the Saudi online community even for those with a limited English competence which manifests how bilingual Saudis affect and are affected by their online linguistic attitudes. To illustrate, these common words become familiar due to the

fact that most online users get exposed to them. The written CS words become common which enable the users to use them linguistically and pragmatically for two reasons; first, to update their vocabulary and means of online communication. Secondly, to enhance the belonging feeling to the online community which relates this research question's findings to the next section.

4.4. Research Question 2: How do the participants employ online interaction to fulfil their social purposes?

The analysis of the findings from all the methods conducted for this study can be categorised into two phases. The first phase concerns the reasons for using linguistic and multimodal resources from the participants' point of views. In the second phase, the data are analysed into themes to answer the above research question about how DMC is employed by the participants to achieve their social agendas and what other spaces it affords.

4.4.1 Motivations of CS and Multimodality

The findings of the current study (the numbers show how frequent the participants mention these motivations) can be compared with those reported in the literature review chapter (section 2.4) as follows:

Table 13: A comparison between this study's findings and the literature

Gumperz (1982)	**Malik (1994)**	**This study** **CS between Arabic & English**	**This study** **Multimodality**
	Lack of facility	Terms that are not translatable or with no Arabic equivalents. (1)	
	Lack of registerable competence	Professional purposes. (5)	
Personalisation vs objectivization	Establish Identity		Enhancing hidden or missing identity characteristics like "sense of humour" (4)

Reiteration	Emphasise a point		Visual and audio affordances assist with not being misunderstood (6)
Interjections which serve as "sentence fillers" (Gumperz, 1982: 77-78) which matches "tag-switching" (Poplack, 1980)	Mood of the speaker	Mood (1)	Visual and audio affordances replace body language (8)
	Habitual expressions	Habit/Ease of usage (6)	
Message qualification	Attention		
	Semantic significance		
Quotations	Pragmatic reasons	Idioms and quotations (3)	
Addressee specification	To address different audiences	When interlocutor uses English. (5)	
		Spontaneity (1)	
		Show off (5)	
		Swear words (4)	
		To reach wider audience (5)	
		Abbreviations (1)	
		English language practice (2)	
		Situation/ settings (2)	Visual & audio aids deliver emotions and situations better than words (8)
		Topic (1)	
		Familiarity of English words in the society (7)	
		Society was first introduced to some words in English although they have Arabic equivalents (1)	
		Psychological issues (3)	

		Careful about interlocutor's gender (6)	Careful about interlocutor's gender (6)
			Saving time and effort (2)
			Trendy affordances (2)
			Add spirit to the message (4)

In summary, the results in terms of practices assist the users to communicate. They show that with regard to CS between Arabic and English, familiarity with English words in the society, habit/ease of usage and professional use, showing off and a need for a wider audience are chief reasons for CS. In terms of multimodality, visual and audio affordances replacing body language, sensitivity about the interlocutor's gender and adding spirit to the message are chief reasons/motivation for CS.

4.4.2 Self-reported Reasons for CS (Interview Data)

As this is a data-driven study it is crucial to mention the reasons of CS mentioned by the participants. It is noteworthy that most of these reasons are founded and documented in the literature, yet a few of them are novel, which is one of this project's contributions.

4.4.2.1 Habitual Practice

In this practice, people may not be aware that they engage in specific linguistic attitudes habitually. CS often occurs in fixed phrases, for example, greetings, parting, commands, requests and discourse markers (Malik, 1994. Aforementioned in section 2.3). In this study, all of the participants agreed one way or another that some CS happens naturally. To illustrate this, Rana and Tariq confirmed that they used English because it had become a habit. Tariq said that he had become accustomed to using English phrases so there was no need to switch to Arabic. For example, he said:

> Definitely, there are Arabic alternatives for most of the words I'm switching to English but it's a habit. Even in my workplace we don't use a formal language except for emails. So, daily usage of these words makes them commons and usual among colleagues, family members and friends

(Tariq).

He also prefers to use the common words in English because it saves him time translating and even if he uses the Arabic substitute, the message will not be clear for the interlocutor because the common is the English word, for example “boarding pass, taxi, action, criteria, U-turn”. Correspondingly, Rana indicated that CS happens unintentionally:

> I don’t think it’s on purpose, it happens unconsciously to express my feelings and ideas easily and better. Somehow, I’m always communicating with people like me who are bilinguals using Arabic and English, it depends on the habit and upon the people I’m communicating with (Rana).

Moreover, Noor thinks that when someone is competent in English, their CS sounds natural and habitual, which in her opinion is acceptable. Additionally, Maya shares the same opinion and her CS mostly includes common words that are understandable for the interlocutor, or professional terms. In line with this, although Dina does not prefer to use English, she finds herself spontaneously switching to some common words like “still, even though, already, spa, fashion”. Likewise, Amal described her CS as happening “automatically”, to emphasise that it happens unintentionally.

4.4.2.2 The Influence of the Interlocutor

Six participants reported that their language choices depended on the language of the interlocutor. The participants switch languages and keyboards according to the language spoken by the recipient. For example, Faris said:

> I switch languages in my keyboard according to the recipient’s English language. If it is weak, I write it in Arabic letters but if the recipient’s English proficiency is good, I switch language. It takes time but it’s about the effectiveness of the message (Faris).

Also, Rana code-switches as a reaction to her interlocutors’ linguistic preferences “maybe because the interlocutor communicates in English which makes me go along with that” (Rana). Similarly, Maya’s CS is triggered by her interlocutors “I switch usually more with those who CS a lot but with those who don’t prefer English or consider CS a show off, I try

not to switch unless necessary" (Maya). Also, although Faris indicated that his English competence is not advanced, his CS also depends on the interlocutor's language choice.

Furthermore, one participant highlights that she switches language according to the age of the interlocutor: "In WhatsApp, I use an appropriate language according to the interlocutor's generation. For example, if I'm interacting with elderly, I'll use the language they understand" (Noor).

4.4.2.3 Language Improvement

This is one of the reported motivations for e-communication use. For example, Rakan as a beginner in English uses English because he seeks proficiency. He said that through online conversations in English, he learnt new vocabularies. He added,

> In online interaction, my English has developed and my vocabulary is enriched because I'm able to revise, rethink, choose and identify the best word options through the assistance of websites (Rakan).

Similarly, Amal confirmed that she uses English because it is easier to double check the words online before posting something than in an offline interaction. She also said that it is easy to check the spelling and meaning of words before posting "I use English more in online interaction because I'm more able to double check the usage, spelling or pronunciation" (Amal). Also, she shared her opinion that she "code-switches more online, maybe sometimes because English has some abbreviations like TC and CU" (Amal). Through these examples (TC = take care and CU = see you), Amal revealed that English language has a privilege over Arabic in terms of abbreviated words, which are not common in Arabic.

Similarly, Noor believes that those who use English more than Arabic use it "unintentionally and naturally. It's true that Arabic is expressive but it's difficult sometimes to describe things as they should be. So, it's easier for them and that's how the brain works" (Noor). She shared that the reason for CS – from her perspective – may be due to the fact that the Arabic language is more difficult than English but she did not specify if this was because

of a lexicon difficulty, semantics or pragmatics. In addition, Maya added that:

> Having both languages allow for easier and faster expression. You can choose from two languages instead of one to deliver the message formally and informally with varying degrees and using the suitable words like "spa, fashion, and menu" (Maya).

Thus, she thinks that being bilingual is an advantage because it allows for "easier and faster" communication, which is the same meaning that Noor shared about avoiding difficulties for better communication. However, Maya did not clarify which language is easier; she believes that having two languages allows the user to switch between them for the purpose of delivering the message with the most common and suitable terms for the interlocutors. For example, the word "menu" is more common than the Arabic alternative, which is considered standard Arabic.

4.4.2.4 Lack of Language Equivalence/Untranslatability

The participants reported that they used English in online conversations because Arabic sometimes has no equivalent words. For example, Amal said that she uses English because some words have no proper Arabic translations, "I use English for specific reasons like when I'm short of some terms either for terms which are not properly translated in Arabic or for those terms with no Arabic equivalences" (Amal). Also, she uses English when speaking about other cultures. Most of the terms used were introduced by Western cultures and they were better expressed in English, "Switching also is common when talking about Western cultures because those words are derived from that culture and should be described in English". Furthermore, Faris believes that some English terms are basic in Saudi society because they were first introduced in English:

> In my opinion, the society was introduced to some terms at the beginning in English thus they use them instead of Arabic words although they exist. For example, in the Eastern province of Saudi Arabia they call the car tyres 'twayer'* and 'glass' influenced by Aramco (American oil company, the first oil company in Saudi Arabia). By then Saudis' lives were simple and primitive living in clay houses. So, all those innovations were introduced to them in English like hospitals, air conditioning (Faris). *(twayer= converted to Arabic plural form).

Likewise, Tariq considers some words difficult to translate into Arabic and if translated, they could lose their meaning and moreover they cannot even be written in Arabic letters "But some words can't be written in Arabic letters because they look weird like 'even though'". This means that some English words are commonly written in Arabic letters and look familiar to the readers while other words are not recognisable if written in Arabic letters. From another perspective, Tariq sometimes has difficulties in finding the right words to express himself in both languages, which goes beyond language choice to the inability of expression. This might be due to the fact that people realize that in online interaction, they do not have to make an effort in composing messages while they always have the option of multimodality, which in their opinion can express them better than words.

4.4.2.5 2nd language Errors are Acceptable

Interestingly, one participant shared the idea of the acceptable errors of second language in online interaction. Amal stated that because English is not her first language, she is not anxious about making any syntactic, typo or phonological mistakes:

> Because it's not my mother tongue some spelling or pronunciation mistakes can be acceptable due for example to my dialect but some mistakes are huge which is not preferable. This makes me prefer using the Arabic word instead of making such a big mistake (Amal).

This statement shows that although Amal takes advantage of online affordances to assist with developing her English language, as she stated previously, she may still make errors, but in her opinion, this is acceptable and forgivable because these errors are in English, which is not her first language. This raises a question about making the same errors in Arabic. When she mentioned "huge mistakes" did she mean pragmatic and morphological errors? This statement corresponds with Chomsky's theory about universal grammar because the participant did not learn English (her second language) at an early age, which makes her sense of linguistic mistakes weaker than in her first language. Also, she treated her second language differently to her first one because she thinks that making such "huge mistakes" is only possible

with her second language, as it is not her first language.

The next section looks into important and common themes among the participants.

4.5 Themes Analysed by Thematic Analysis (TA)

To answer the second research question about of how the users employ the online interaction to fulfil social communicative purposes, it is crucial to find the most important and common themes among the participants.

4.5.1 Online Language Preference

Most of the participants (seven out of eight) indicated that they had no preference for starting their online conversations in either language in their online surveys. Yet, in their interviews, six of them confirmed that their preferred online language was Arabic. Three of the participants' responses matched in both the online surveys and their interviews, whereas Dina stated that Arabic was her preferred language in both. Moreover, Rakan and Tariq confirmed that they used both according to the interlocutor's language, although Rakan's English competence is at the beginner level and Tariq's is intermediate.

With regard to the relationship between the level of education and preferred online language, six of the participants have Bachelor's degrees. Four of them use both English and Arabic, while two of them prefer using Arabic. One participant has a master's degree and uses both English and Arabic, while another participant is a postgraduate and prefers using Arabic for online conversations. Thus, it can be concluded from the sample's self-reporting that there is no link between the level of education and preferred online language. This means that educational degrees do not necessarily determine the preferred online language because Arabic is still the preferred online language even with those with higher degrees.

It is worth re-mentioning that the English language has officially emerged in the Saudi education system and it is used from an early age onwards. Al-Johani (2009) claims that

English was introduced in the 1930s after the oil discovery in the region. It was then implemented only in the context of business, whilst the government delayed introducing it into the syllabus until the 1950s. On the other hand, Al-Ghamdi and Al-Saadat (2002) think that the teaching of English was first introduced in the KSA in 1936 in Makkah in order to prepare Saudis for studying abroad. On the other hand, Al-Abdulkader (1978) proposed that English and French teaching started in the intermediate level of the Saudi education system (grades 7–9) in 1958. However, the Ministry of Education (MoE) excluded French later at this level in 1969, and it only continued at the secondary level (grades 10–12), which increased the English over French by then.

Although none of these authors provide evidence of precisely when English was introduced in Saudi Arabia, it may be assumed that this occurred sometime in the late 1920s, just prior to the discovery of oil in the country. Therefore, it can be argued that all the participants in this study have learnt English at varying degrees since an early age. Thus, the relationship between educational level and language proficiency is considered.

Even though the participants' ages, genders, educational backgrounds and English language competence differ, most of them agree that they are proud to use Arabic in online interactions. None of them chose or used Arabizi (writing Arabic words in English letters and numerals). Arabizi Romanised/Latinised is a new type of written language employed online and developed by Arab users at the end of the 1990s. It is a mixture between using English letters and numerals to substitute the Arabic phonological letters because Arabic was not supported by technology (Yaghan, 2008; Aboelezz, 2009; Keong et al., 2015). Rakan stated that:

> I can accept code-switching but not Arabizi at all. People who use Arabizi weaken both languages. Some people code-switch according to their register like doctors or bankers where in these careers, the usage of English is the norm (Rakan).

He expressed his opinion that Arabizi is an unneeded linguistic practice since there are available keyboards for each language while before 2012 the internet did not support Arabic (see section 1.3.1). His statement "weakens both languages" implies that Arabizi linguistically makes each language weak because it is like breaking the properties of each language. The participants' views of Arabizi in this study contradict those reported by Alghamdi and Petraki (2018), who conducted research with Saudi users of Arabizi. Their study concludes that Arabizi is a strong marker of Saudi youth identity and group solidarity. Their findings indicate the dominance of Arabizi amongst Saudi social media users. The different findings in the current study may reflect the fact that my participants do not belong to that age or social group.

Amal indicated that she frequently code-switches from Arabic to English keyboards and vice versa, which is sometimes time consuming. This makes writing the whole post in a mix of both languages– writing English words in Arabic letters– easier, as Amal stated: "I also switch keyboards as well when switching but it's not easy that's why I write some English words in Arabic letters to avoid switching the keyboards". In line with this, Faris indicated his habitual switches for some common words like *"boarding pass, taxi"* and he confirmed that he prefers using these common words in English because it is time consuming to translate them and because his priority is the message's clarity and effectiveness. In his opinion, these will be affected if those English common words are translated. This statement leads us to believe that those common words are accepted and encouraged in Saudi society (a mini-corpus is attached in appendix 4 including the code-switched words used by the participants in this study).

With regard to keyboard switching, there was a conflict among the participants. For example, Amal did not switch languages because there are alternatives in the other language. She believes that people are allowed to make an acceptable number of mistakes when using a second language. She confirmed that "There's no necessary need to switch to English because

all words have alternatives. In my opinion there is an acceptable percentage of insertions or alterations that can be up to 30% of the whole interaction".

Maya thinks that switching languages enhances communication. She is able to express herself more easily using both English and Arabic. Similarly, Rana confirmed:

> I used to switch the keyboard easily but what I don't like in switching languages that the paragraph doesn't seem organised and English words appear in the wrong place in the sentence (Rana).

In contrast, Faris indicated that he usually switches languages on his keyboard according to the recipient's English proficiency level; if it is weak, he uses Arabic, but if the recipient's perceived proficiency level is good, he switches the language but never to Arabizi. This finding indicates that Saudis who are not bilingual still understand these common words and use them either orally or in Arabic written texts. Similarly, Tariq also uses English words like "*meeting, weekend*", either by writing them in Arabic letters or by switching the keyboard to English.

Significantly, Tariq raised a concern about some Saudi men colleagues who believe that CS is a feminine linguistic behaviour. In that statement, the participant expressed his anxiety about his linguistic choices specifically CS because his community judges such linguistic practices as feminine which disrupts the spontaneity of his conversations. Likewise, Noor indicated that she matches her linguistic choices to the interlocutor's generation. By this statement, she indicates that each generation has some special linguistic terms that distinguish each from another such as some words that are generated due to specific incidents or some online games. Thus, some bilinguals try to update their linguistic choices including CS to sound more belonging to some groups because it seems that if they do not, they will sound outdated.

Furthermore, Amal expressed her preference for Arabic, especially on Arabic-based platforms, but because Twitter is a global interaction platform, she considers CS to be the norm to reach a wider audience. Moreover, she reflects that writing electronically improves her English language by facilitating auto-correction for better spelling and the time to check each

word's usage and pronunciation. This means that she switches to English more in online than in offline interactions. For Amal, switching to English is limited to professional and cultural purposes and sticking to Arabic is safer for her than using English incorrectly, although she indicated that her English competence is advanced. She added that switching to English in an interaction should not overshadow Arabic because she thinks that switching to English is not necessary.

Likewise, Rakan showed that e-writing helps to improve his English language through translation websites, which enable him to look up words and check spelling via auto-correction. This online facility encourages him to be more confident about his English choices due to his incompetence which can be considered as a free space to practise this linguistic attitude that cannot be fulfilled in the offline interaction. It is suggested that online interaction properties allow him to expand his English vocabulary and spelling thus he cannot be exposed to criticism from the other online users. Furthermore, online interactions allow time to look for suitable words and to revise the messages. Similarly, this option essentially contributes to Maya's way of messaging as it gives her all the space she needs to rethink and reconsider her messages and posts prior to sending them. This makes her seem more mature: "online, I feel that I'm wiser, calmer and more mature person not by faking it but because I have more time to think about my replies" she indicated. She added that using both languages and their linguistic repertoires allows her to express herself easier and faster. However, she expressed her struggle to find the right words that best fit their messages. On the other hand, Noor indicated her pride in using Arabic and she thought that it was suitable for every situation and topic. Her CS is very limited to specific purposes and it is not a habit at all.

Moreover, Maya added that her CS depends on her mood, the situation and the interlocutor's preferences over CS – she uses it less with those who prefer not to interact in English. This statement contradicts the statements of Faris and Tariq, who explained that their

CS was spontaneous. However, Tariq stated that his CS is both spontaneous and invoked by the topic of the message and the interlocutor he is interacting with, which raises a question about the possibility of being spontaneous and conditioned at the same time. He stated that his CS is more of a habit both online and offline. Dina expressed that she is proud of Arabic as her mother language and tries her best not to switch unless for professional purposes or common words both in online and offline interactions. For the few English switches she makes, she switches keyboards as well, which makes it is easy and accessible for her.

In contrast, Amal stated that although she code-switches frequently, she tries to avoid switching intra-sententially due to the confusion that the different typology systems of each language create in one sentence or paragraph (Arabic starts from right to left and English vice versa). Thus, some participants prefer to write the whole sentence in Arabic, including the CS words that look familiar to the readers, while others prefer to switch the keyboards according to the readers' English competence.

For the participants, online switching from Arabic to English is for professional purposes and common words. The latter can be categorised as familiar words that the Saudi society is acquainted with, regardless of their English language proficiency.

Due to the rapid pace of Twitter threads, Faris indicated that he is unable to post because he feels that his participation will be too late. Thus, when capturing tweets from the participants, it is noted that his Twitter participation – in terms of actual posting – is almost non-existent – all I found were three pictures, retweets and likes. This questions his aforementioned statement in which he indicated that his poor Twitter posting could be due to his inability to create a post. Rather, it could be due to a lack of confidence, as will be discussed later in section 4.6.3. Moreover, Noor stated that her CS is a habitual linguistic behaviour due to the settings in either her online or offline interactions, which are enriched by her interlocutors' bilingualism. Her bilingual interlocutors make her CS a norm, so she finds it

easier to communicate with abbreviations and common expressions that are well understood and used by her interlocutors.

4.5.2 Online Affordances (The Choices of the Participants)

"Affordances" is a term originally introduced by Gibson (1986). It refers to the properties that a new technology allows, more particularly, it provides the users of each technological platform with specific probabilities and aids – in the current study these include visual and audio aids – that can be employed for communicative purposes (Lee, 2007).

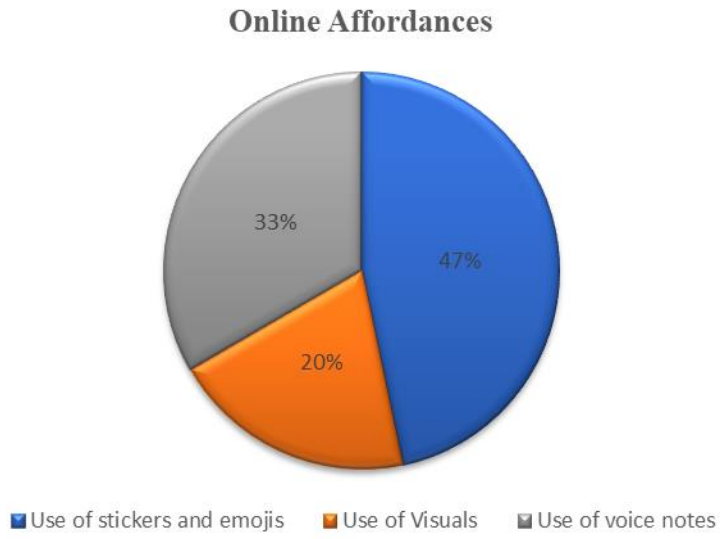


Figure 10 Frequency of using online affordances

The above figure represents the frequency of using online affordances found in the data: 47% of the collected data were stickers and emojis, 33% were WhatsApp voice notes and 20% were visuals (photos and images).

In this study, all of the participants stated one way or another that the different online affordances (audio and visual aids) on both platforms were the most favourable facilities that helped them to deliver a message, even more than written texts. They particularly liked and used emojis, voice-notes, stickers and GIFs in WhatsApp, and hashtags, emojis and pictures in Twitter. It is interesting how most of the participants find these affordances more expressive

than words because the visual and audio aids deliver their emotions and moods. For example, Dina uses stickers and other online affordances to enhance the meaning of her message and in order to not to be misunderstood. Likewise, Faris uses emojis and stickers to communicate informally with friends:

> I use emojis only with friends because it's not professional to use them with everyone. I think emojis are used to express emotions like happiness or anger so it's not appropriate to use them in the professional context. I use emojis also to support the message in order not to be misunderstood because it lacks the tone that I usually use in the offline language (Faris).

Similarly, Maya thinks that online platforms help her to rethink, revise and choose the emojis that best represent the situation. Noor uses stickers and emojis to supplement and enrich her text messaging, to make it more vivid and understandable:

> Sometimes I use GIFs or stickers instead of words, I feel they are expressive. Some GIFs are related to common memories amongst our society like some actors who are known for specific characters, so when using such GIFs, I'm delivering a whole situation not only a word. Therefore, I love to use them a lot. I care a lot about the interlocutors' feelings because they are close so I need to deliver the massage as it is without being misunderstood because words are solid and spiritless. Same expressions may have different meanings according to the tone which is missing here (Noor).

With regard to voice-notes (unfortunately voice-notes have not been included and analysed in this study, justified in the limitations section), WhatsApp provides participants with the capability to send messages and express themselves in a better way. For example, Amal prefers to use voice-notes in WhatsApp because they convey voices and tones, which include all the emotions without using emojis, especially when she is busy or unable to type. Comparably, Maya believes that voice-notes make her better realise her tone and mood in the message being send and they help her to develop how she articulates her messages, to make them more comprehensible and focused: "I always listen to my voice-notes before and after sending them. This makes me know how I sound, what my weaknesses are, how clear and focused I am to amend and improve in the next times".

In line with this, Rakan shared his view about voice-notes, which he uses when time is

short for typing or to ensure that the message is delivered properly, “Voice-notes also are considered to be a proof that can’t be misunderstood because written texts can be misinterpreted”. In addition, he highlighted two points about his preference for voice-notes over text-based messages. First, writing is “limited” for him and may not deliver the meaning he desires, which he described as “filling templates”. He did not clarify what he meant by filling templates but it can be inferred that he meant that he is unable to employ the words he wants to deliver his messages. Second, text-based messages lack the body language he uses in face-to-face interaction:

> In face-to-face interaction you can see the interlocutor’s facial expressions and collaborative contact which enables you to negotiate and convince the interlocutor. Yet in writing, the sentences’ formulas are limited and they can be interpreted correctly or not. In writing I feel that I’m filling templates which makes me most of the time ask the interlocutor if what I wrote is clear and this leads me to record if it’s a WhatsApp message (Rakan).

Similarly, Tariq believes that voice-notes are the best online affordance for him to send his messages. This saves him from wasting time writing messages and making spelling mistakes. He also thinks that voice-notes better deliver meaning, tone and emotions than text-based messages. Noor shared a similar notion about the use of voice-notes, “sometimes, when I argue with someone, I use the voice-notes because I want the interlocutor to get it as it is not as if we’re fighting”. In this statement, she indicated that voice-notes are the best way to deliver emotions, especially for conveying an argument because in her opinion, this is a situation where she cannot trust that text-based messages will deliver the real meaning and she may not control her word choices well. This is because she cares about her interlocutors’ reactions and she needs them to receive what she really means. Likewise, Faris revealed his need sometimes to use the voice-notes as they better express his mood and tone, which cannot be delivered in text-based messages. It should be noted that the researcher did not listen to the voice-notes to check if the participants used CS.

These findings can be compared to Warschauer et al. (2002) and Goldbarg (2009) – aforementioned in section 2.5.1 – who reported that their participants used L1 to show emotions. It can be argued that online visual and audio affordances substitute the L1 status as the participants find them more expressive than written texts.

From another perspective, Herring and Dainas's (2020) focused on the influences of gender and age on the understanding of emoji meanings. Their results revealed that tone modification (voice-notes in this study) and then the virtual actions were the most preferred interpretation overall. No significant gender differences. With regard to age, the participants over 30 did not show full understanding of the functions of the emoji. However, younger users perceived them more conventionally. The older men were most tending, and younger women were least expected, to find emoji confusing or annoying. The last finding contradicts those of the current study in that even the participants over 30 – in this study – expressed their preference for employing multimodal affordances, either visual or audio resources, because they delivered messages better than words. Their collected data supported their reliability on these affordances.

Moreover, the two women participants who indicated that they were able to employ their own words to deliver their messages without the need to use those affordances were under the age of 30. Other participants reported their need for specific affordances like emojis to make their words sound less tough and friendlier. This finding raises some questions: a) how do the participants know the impact of their words on their recipients? b) are they comparing their online language to their offline language? c) is their assumption due to their own sensitivity towards similar messages?

To answer the above queries, the participants indicated that emojis, voice-notes, GIFs and stickers fill the gap caused by the limited view of body language in online interactions, which makes the use of affordances understandable. Another explanation is that the

participants showed their repeated concern about not being misunderstood by their recipients, by, for example, sounding tough or using words that may hold more than one meaning. This fear might be the motivation behind their usage of affordances, yet it raises an inquiry about the participants' text-based abilities to deliver their messages. Is it because they struggled to select the right words? This means that the participants are sometimes uncertain of some words' impact on the recipients, which reflects the participants' lack of confidence about their ways of expressing themselves. Another possibility is that the use of affordances might only be an excessive concern about the recipients' reactions, thus reflecting the participants' own sensitivity. Also, it might be due to a type of miscommunication issue in their communities as it was indicated by more than one participant.

In line with this, Rakan expressed his opinion about writing any message and he described it as filling templates emotionlessly and said that he had to add emojis or voice-notes to express his feelings, his tone and his mood. Similarly, Tariq, Faris, Amal and Noor expressed their views about online affordances as being necessary to add spirit (life) to their messages and make them more vivid. This finding shows that the participants consider online affordances as an undividable part of the written message. However, Dina and Rana indicated their ability to deploy their own words to fit their messages with no need for emojis, although almost every one of their posts and tweets contained emojis. Furthermore, Noor added – later in the interview – that she prefers offline over online interaction because she essentially relies on her body language, tone and persuasive abilities, which she adapts to her interlocutor's facial expressions. However, in online interactions all these elements are missing, which makes communication less interactive. Accordingly, she uses online facilities to fill these gaps but not to make up for a failure to employ the right word. Similarly, Amal indicated that:

> Online facilities assist me in expressing myself in a way that I cannot do in the offline interaction because it allows more space, freedom and time. For example, in the offline interaction you may be interrupted or the setting itself does not help in expressing yourself (Amal).

This finding raises the issue of people's readiness for communication, which according to Amal is encouraged by the nature of online discourse. McCroskey and Richmond (2009) reported that the usual inclination to avoid or approach communication has been documented as a critical individual difference among people in a single culture for several decades. Later research in Micronesia, Australia, Puerto Rico, the United States, and Sweden proposes important differences occur in such preferences among people in different cultures as well as in a single culture. Another study by Burroughs et al. (2003) found a relationship between self-perceived communication competence and willingness to communicate, consistent with that found in other cultures. Consequently, these findings correspond to the reports by the current study's participants that online interaction allows space and time to think and revise their chats and posts before becoming involved in interactions, which opens the door for further research based on this implication.

This study therefore fills a gap in the literature by exploring the Saudi culture and Saudis' perceptions of self-perceived communication competence and willingness to communicate. To illustrate, Tariq and Maya reported that online interactions allow them to reconsider their posts and be careful. For example, Maya reflected "online, I feel that I'm wiser, calmer and more mature person not by faking it but because I have more time to think about my replies, work on my voice-notes not under any pressure". Thus, all these participants expressed their need for time to construct their utterances and prepare their interactions. To break up Maya's previous statement, the last part was about working on her voice-notes, which means that even though other participants claimed that they saved them time and effort in writing, they need to be revised and are not spontaneous, at least for Maya. Also, she added that the affordance that allows her to listen to her voice-notes after sending them enables her to recognize how others listen to them as well so she can develop her ways of delivering the information.

This result indicated that online interaction contributes to the reconstruction of online identity, and voice-notes are one of the basic contributors. In line with this, Tagg (2015) suggested that constructing an online identity is an interactive process among users especially shedding the light on how each likes to act and how to be seen by others as well. This explains Maya's reason for revising her voice-notes, as this helps her to understand what her interlocutors' think of her audio messages from her own perception. This supports many aspects of her online communication, as she previously mentioned, for example how she sounds (her voice, tone and intonation) and how clear and focused she is. She puts herself in her interlocutors' place to decide whether the audio message is comprehensible, cohesive and effective. All of these elements assist with developing her online persona because she has the desire to work on her weaknesses. This online facility from Maya's view, is an advantage in her sociolinguistic reconstruction while it is a physical advantage to others in saving time and effort only.

Another finding is expressed by Faris, who confirmed that online platforms provide him with easy access to communities of shared interests that he might not be able to create offline. Online he can also be a listener and an information keeper, without any sarcastic comments that he might receive in offline communication – for him it is impossible to be somewhere physically in the offline interaction sitting and just listening without participating. Comparably, this statement by Tariq is considered as a virtual embodiment as users are engaged greatly in online interactions, which have become an important element of everyday social life (Yee & Bailenson, 2007; Yee et al., 2010). It has been proposed that when people build distinctive technological connections, this promotes the understanding of their selves and enhances their communication with others (Turkle, 1984; Turkle, 1994; Nass & Moon, 2000).

Moreover, Rakan raised the aspect of the lack of visibility of the interlocutor's reaction in online interactions. For example, in offline language, some reactions like emotions,

agreement or disagreement can be understood from the interlocutors' eyes, but online, the user's tone or mood cannot be predicted. Rakan indicated that online he cannot know the effect that his comments or utterances have on the recipients. Similarly, Noor expressed her concern about her interlocutors' feelings, which leads her to use voice-notes and other affordances to deliver her message accurately and to lessen the impact of unintentional tough words. She believes that words are solid and spiritless and that some words may be interpreted differently due to the lack of tone which is a basic element in any interaction. It is true that one of this study's objectives is to explore how the participants employ the online interaction, yet the previous statement and similar comments about online privileges argue that some participants become more aware of what offline interaction lacks instead which means that some participants prefer the online interaction over the face-to-face communication because they found it more effective and fills the offline interaction gaps they suffer from such as the wrong employment of words and the unwillingness of communication. The participants' statements are linked to previous reports in the literature. To illustrate this, research by Ganster et al. (2012) about a person's perception of communication and non-verbal communication supported earlier literature, indicating that the equivalence of the cue (multimodality) affects the formation of corresponding impression. Furthermore, in a more recent and inclusive study, Tang and Hew (2018) searched the relevant literature, and their general consensus was that the proper use of emoticons, emoji, and stickers, specifically the positive ones, is conducive to both relationship construction and cognitive perception.

In line with this, the current study's participants indicated that visual affordances are basic in their online interactions. One of the functions they use them for is to exclude misunderstandings, which might occur due to users' lack of tone, and the multiple meanings that one word may hold. This finding can be related to Bourdieu's (1977b) notion, (aforementioned in section 2.4) about speakers' evaluations of the contextual cues and

expectations of how his/her linguistic utterances will be perceived. This procedure serves as an inner control for his/her code choices (ibid, 1977b).

It is crucial to point out that besides the significance of online affordances to the current study's participants, there are special stickers recognised by Arabs which are culturally indexed because they are of Arab artists who have a particular status among Arabs and are known for particular characteristics. Some of these stickers are known to Arabs generally and some of them are more meaningful to Saudis because they feature specific artists like comedians and singers with words or expressions that they are famous for. The current study's participants are more attached to these artists as they portray some situations that touch them culturally. The stickers are personalised and caught in the most touching and expressive situations. These stickers are used in WhatsApp as stickers and in Twitter as pictures or GIFs. All the stickers reported in this study are from WhatsApp only.

Extract 26 from Rana (F/33) WhatsApp

The first sticker is for a Kuwaiti singer with the words 'how lovely you are'

The second sticker is for a Saudi comedian with the words 'this is dangerous'

Extract 27 from Maya (F/35) WhatsApp

This sticker is for an Egyptian comedian known for his funny situations and phrases (anyone asks about me I'll go to sleep).

Extract 28 from Tariq (M/25) WhatsApp

The sticker is for a Saudi comedian known for his funny facial expressions and cultural situations.

Extract 29 from Rakan (M/49) WhatsApp

Excessive emojis are used to show happiness and to congratulate the interlocutor for their success.

Extract 30 from Noor (F/24) WhatsApp

The sticker is for an Egyptian comedian with a funny hairstyle and the phrase is rephrased from Saudi to an Egyptian accent (WhatsApp).

These stickers and emojis from the participants' view are "trendy", as Noor indicated. Similarly, Tariq confirmed that these stickers are able to deliver his situation and mood in an attractive and updated way. He also added that these affordances create a funny and nice atmosphere among the interlocutors. Likewise, Dina shared that these affordances reveal a sense of humour in an online interaction – more than she really can show in an offline interaction. Moreover, Tariq explained that some stickers and specific emojis represent the facial expressions that he personally is not able to make, which makes it a way of having fun and being expressive at the same time.

According to the data collected for the current study, online affordances comprise audio and visual aids such as voice-notes, pictures, emojis, stickers and GIFs (93 from the total of 194 WhatsApp chats and 91 from the total of 122 Twitter posts) and they can be considered almost half of the data collected. Although the participant sample is small, all the participants indicated that online affordances had a high status in their online communication. They explained that these affordances substitute the body language that they spontaneously employ in their offline interactions. This finding supports Fahlman (1982), who created emoticons, widely used in DMC as they strengthen the emotion, showing attitude and attention expression (Lo, 2008). Although emojis represent human faces in a highly abstract way by being

genderless, ethnic-less and ageless (Smiljana, 2009), they sometimes act as a simulation of the recipient's facial expression or body gestures. Comparably, two websites, Digiday and Swyft Media (2015), reported that emojis are the new internet slang. Swyft Media (2015) indicated that six billion emoticons and stickers are sent everyday via mobile messaging apps worldwide.

4.5.3 Social Characteristics

4.5.3.1 The Impact of the Recent Sociocultural Changes in SA on Women

Some participants are aware that online communication can have an impact on their behaviours, the way they socialise with others and how they react to their surroundings. For example, Maya shared her experience about how online interactions are affected by the ongoing changes in the Saudi context, such as the influence of 2030 Vision (mentioned in the introduction of this chapter in section 4.1). This enables Saudi women to be bolder and more confident in expressing their opinions in online interaction. This vision has changed how people act and react to social incidents and sensitive topics. Saudi women are now coming out to express themselves publicly in the Saudi society, which was for a long period of time subject to inherited habits and traditions. She said:

> SA is transforming to a more moderate community and you can see this even in social media platforms. For example, previously very few females were able to appear and speak publicly without covering their faces and also this was more among specific communities who are multicultural, but now with 2030 vision many things have changed, like more Saudi women are able to go public without face cover and from more diverse communities who were having difficulties in doing this (Maya).

From a different perspective, Tariq shared his viewpoint about Twitter:

> Twitter is different because it's a public platform with millions of audiences so I think and consider each word before posting. I try my best to post and comment clearly without hurting anyone's feelings (Tariq).

This statement can be argued for two reasons; first, the participant implies that he acts differently when he interacts publicly which means that he chooses specific personal aspects to show that are different than his usual way of interaction. Also, this statement signifies that the participant is keen about others' feelings which raises the question about what might he do to

hurt “anyone’s feeling” in online interaction. This might be due to the participant’s harsh way of interaction which he is aware of and can be misperceived by others. Yet, his kindness towards others’ feelings is questionable because in one of his collected posts, he criticises another tweeter for being stuck in the friend zone (see extract 6) which means that either he knows that interlocutor or he contradicts himself.

CS as an issue of lack of confidence

Another characteristic that was detected by the participants is the unnecessary switch from Arabic to English. Some participants think that people who switch languages are seen to be incompetent and non-proficient. For example, Dina said, “Others who switch languages are either more competent in English or not confident about their identities and showing off by switching”. Likewise, Rakan believes that people who are not competent in English sound fake or are showing off because there is no need for this CS. To illustrate, he said:

> when the setting is Arabic and the speaker is Arabic and there’s no need to CS, CS seems embarrassing because those people aren’t proud or confident about their mother language or identity. I think those people have issues or a type of complex for recognition (Rakan).

Dina and Noor both stated that CS is understandable when people whose English is better than their Arabic switch to English. Yet, when those who are competent in Arabic are interacting with other Arabic speakers and they switch to English, it is then unneeded. Dina and Noor believe that those switchers do it to show off and to make it seem that they have a prestigious privilege over others. Dina thinks that those people lack confidence about their language and identity, which makes them use language-switching to cover this. Dina’s claim is supported by Abdel-Fattah (2010: 185), who also thinks that such linguistic attempts arise from bilinguals feeling that “their language is imperfect”. This finding contradicts with what Lipski (1982:191) considered previously about CS as “internal mental confusion, the inability to separate two languages sufficiently to warrant the description of true bilingualism”.

It is noted that studies – including this study – have signposted that CS is not an indicator of confusion but a ruled linguistic performance among bilinguals which is driven by numerous socio-psychological and linguistic factors. For example, Obi and Mbagwu (2010) concluded that the prestigious status of English among the Igbos in Nigeria makes some people consciously show their superiority by using the supposed better status English even when Igbo is the language of discourse. This becomes a habit and occurs subconsciously.

These findings support Fishman's (1965) questions of who speaks what language, to whom and when? These questions are applicable to the participants' view towards some Saudi switchers who switch when unneeded, because all interlocutors speak Arabic but for some psycholinguistic reasons they unconsciously switch from Arabic to English. Although Dina and Noor reported their English proficiency as (Noor intermediate/Dina advanced), they still consider switching an unneeded attitude in some situations. This declaration opposes the suggestion in the literature that only monolinguals underestimate bilinguals as argued by Cook (1997) and Gardner-Chloros (2009).

Nonetheless, Grosjean (2010) characterized it due to bilinguals' socioeconomic status assuming that those who belong to an upper socioeconomic status may be more valued by monolinguals for that privilege and vice versa (Grosjean, 2010). Having this debate between researchers about CS makes the aforementioned finding by the current study's two participants (Dina and Noor) unprecedented as both of them are bilingual and educated (both of them have BA certificates), and they have the same view of switchers, whether they hold a high socioeconomic status or not.

From a different point of view, Maya and Tariq consider that CS, specifically the type of English words chosen by the speaker and the way they are used, is a sign of the educational background of the users. Furthermore, Maya added that these word choices, if accompanied with other signs like the appearance of a person and the way they dress, can together serve as

a sign of their social background. These findings imply that CS in itself is not considered as a whole, but is rather classified into levels where each reflects the users' socio-educational background. This significant finding highlights that users can be detected as professional or unprofessional switchers. To illustrate, Maya confirmed that in both cases whether her interlocutors code-switch either in face-to-face or online interaction, she can predict their educational and socio-cultural level due to their choices and phonological pronunciation of curtain English words. She also added that people's oral or written choices of words uncover their real sociocultural level, such as their perception of others, "I can tell when I speak to someone if they are old-fashioned, well-educated or just copying others". She illustrated by giving an example:

> like the words 'films' and 'movies', which both describe the same thing and there is no Arabic word for them either in colloquial or standard Arabic. Yet if 'film' is used it shows that the user is old fashioned, while 'movie' is the right choice. Also, we used to switch to the word 'movie' but pronouncing the "v" as "f" in a way or another invokes the more competent interlocutor to feel superior and in writing, the word 'movie' is used by those whose English is better than those who use 'film' (Maya).

Another aspect is reported by Faris with regard to how the online feedback from others on Twitter affects his interaction. For example, he mentioned that he once commented on a cooking post and received negative feedback about it, like it is such a feminine hobby, etc. When others made fun of his cooking interest on Twitter, he was discouraged to continue posting or commenting on that topic although he usually believes in what he posts; this indicates the power of the community over the individual, even online. This finding contradicts the belief of Noor that people are encouraged to act differently online from offline because they feel less observed. Thus, Faris revealed that he sometimes prefers an anonymous account, which enables him to act freely.

This finding leads to the conclusion that such comments can be considered as a type of online bullying where tweeters place judgements and sarcasm on others. It clearly shows how the power of the audience strongly affects choices and posts as few actual posts were found in

Faris's account and the rest were only careful likes and retweets on specific sports topics. This may imply that male interlocutors should be very aware of their online interests and ensure that those interests comply with the masculine view of the Saudi community. He indicated that such comments "prevent him from posting freely", which signposts his full consciousness when posting or commenting. This leads him to negotiate the relationship between face and the notion of identity introduced by Goffman (1955: 215) who first introduced the notion of "face is the positive public image you seek to establish in social interactions". This attention towards framing face in the context is much associated with identity in interaction. The fine line drawn between identity and face is that face is defined as "a person's immediate claims about 'who s/he is' in an interaction" (Heritage, 2001: 48), which contrasts with the "more enduring features of personal identity" (ibid: 48). This discussion connects users' online identity to their face (acts), thus the more they are known to their audience the higher the risk is of losing face and vice versa.

The use of a second language to show off

According to the research interviews, most participants believe that people who use English in some situations in their online conversations are considered to be showing off. To illustrate, Faris said, "Others in the society now use English as a show off which makes them feel they are culturally better than the others". Similarly, Dina believes that some people use CS in order to show off. In line with this, Noor shared her opinion that some people use English for prestige and to show off, which is sometimes inappropriate with those who are less proficient in English. Likewise, Rana thinks that people who are not proficient in English sound fake or are showing off because neither the setting nor the interlocutors require the use of English.

From another perspective, Tariq said that when he mingles with new men colleagues or men communities who are not used to CS, they make him feel that CS is a type of showing

off or they consider it a feminine linguistic behaviour that is not appropriate for men.

Herring and Paolillo (2006) argue that both genders' linguistic characters are more related to the genre than to gender. This finding can be due to the interrelation between gender and genre. Arguably, some scholars such as Huffaker and Calvert (2005) debate this opinion by indicating through studies that young men online users employ more emojis than women. Henceforth, scholars who assume that gender is not a fixed characteristic affecting language, but rather a performance, contested Herring's arguments (Rodino, 1997). Regarding CS, Bassam (2017) studied gender influences in CS between English and Arabic in the SMS (text message service). His findings showed noteworthy gender distinctions based on the religion of the sender, social class, the age of the recipient, and the gender indexing nature of the interaction.

Hence, referring to Tariq's query about the validity of claiming that there is a specific language for each gender, there are documented and distinct gender differences in linguistic behaviours, especially CS. Based on that, it can be argued that the offline society still has the power to control people's behaviours, even in their online interactions. Everyone has different reasons for not being totally free to share what they feel because they fear misjudgements, misinterpreting and labelling.

4.5.3.2 Emotions in the Language

It is fundamental to link the previous micro aspect of face with this section's macro aspect of emotions, which includes various elements. Here we focus on two elements: swear words and the relationship between emotions and multimodality. Emotions engage physiology, feelings, knowledge, behaviour, perceptions and conceptualisation (Ortony et al., 1988; Garett, 2009).

Swear words

Dina, Amal and Maya indicated that the norm or etiquette they used to is to switch to English for swear words, both offline and online. They feel that in English, these words sound less aggressive and have less negative impact on the recipients, who accept them more than if they had been said in Arabic. For example, Dina commented:

> For swear words I use English because it's more appropriate than Arabic. Also, in my social background we don't use swear words and I don't like to hurt others' feelings because for me, swear words in Arabic sound more serious (Dina).

One of the arguments in this regard that complies with the current study's findings is that people's sensitivity to swearing is based on certain sociocultural factors such as the person's gender, social class, register, age and situational variables such as their relation with the interlocutor which may trigger a greater or lesser risk of losing face (cf. Jay 1992; Jay & Janschewitz, 2008). This can be seen in one of her posts, as follows:

Extract 31 between Dina (F/25) and the researcher

Dina: Hey you stupid.
Dina: I mean which job shall I apply for?
The researcher: A lecturer, is it going to be a janitor for example□□.
The researcher: your situation is awful.

Extract 32 between the researcher and Dina (F/35)

Dina: Hello, how is it going? Who is in for the hotel's ceremony of *anniversary*?
The researcher: I can't tell for sure.
Dina: O my God, I hate that secretary. She is such a *bitchy* and acts in a *bossy* way.
The researcher: 😂although she is (sauvage = vulgar), she is very haughty.
Dina: she is a *new money*; it is very obvious even her outfits are *slutty*.
Dina: Can you imagine that she escalated a complaint about my attendance without any evidence? That *asshole* is irritating.

In this excerpt, the user's switch of such words like "bitchy" and "bossy" to English provokes the interlocutor to switch also, using the French word "sauvage". This supports Goffman's notion of footing mentioned in section 2.4: "changes in alignment we take up to ourselves and others present as expressed in the way we manage the production or reception of an utterance" (Goffman, 1981:126). Yet, these excerpts present the participants' linguistic behaviour when their mood is stable and they were conscious about their posts, thus this linguistic behaviour may change in the situation of real anger.

Extract 33 from Maya (F/35) Twitter

Maya: Shit why I watched this💔💔💔

In these excerpts, it is obvious that switching to English for the users was the safest way to avoid being aggressive and making the words sound less serious to their recipients. It can be noted that in some posts the swear words are written in English either between friends or colleagues, which means this switch is not only due to formality or informality, but rather because some words are familiar when written in Arabic letters, while others are not. In line with this, a mixed-methods study by Zenner et al. (cited in Beers Fägersten, 2017) reported that shorter swear words are more easily borrowed, supporting Chesley and Baayen (2010) and Poplack et al.'s (1988) findings of the same. This study finds that users rely on a short word to borrow, like "bitch", "stupid", "shit" because of sociocultural influences that prevent some of them from using the equivalent words in Arabic. This makes switching to English an escape from this sociocultural impact. Another study by Beers Fägersten (2014) with regard to using English swear words in the Swedish media which may characterise a specific Swedish-English variation or a common non-native English variety. This implies that using English is a lingua franca. He stated that:

> The practice and reception of swearing are instead variable behaviours, and it follows that the appropriateness and offensiveness of swearing can vary wildly between two extremes, one of categorical intolerance and one of liberal indulgence (Beers Fägersten, 2014: 69).

Similarly, David et al. (2016) studied how online English cursing is used in Malaysia. Due to the multilingualism all over the country, innovative words were adopted as a result of CM and borrowing which produces new mixed swear words using Malaysian and English. For instance, "Biatch was created as a personal insult instead of bitch" (ibid, 2016: 130). Therefore, both studies share the notion of reducing the negative impact for the recipients. These findings could be a sign of Goffman's (1981) notion of "framing", which represents the social limitations that oblige specific communities to act in particular ways (see section 2.4).

Nevertheless, a study by Dewaele (2007) about the frequency of making language choices for swear words. His findings concluded that there is a positive correlation between

this option and the sentimental force of swearwords in that language. Moreover, a more recent empirical study in India by Rudra et al. (2016) to understand the language of preference indicates that Hindi (i.e., the native language) is chosen more than English when expressing negative comments and swearwords.

4.5.3.3 Emotions and Multimodality

Grathwohl, the President of Oxford Dictionaries, has rated emojis (one type of multimodal affordances considered in this study) as a rich and flexible method of communication which exceeds linguistic limits (Oxford Dictionary, 2015). Using emojis is considered a transformation in how we communicate. Nowadays, people employ emojis to describe their emotions more than actual words. It is argued that emojis are a common global language due to their easiness, richness in meaning. Moreover, they represent socio-emotional contextualization cues in digital communication (Jibril & Abdullah, 2013). For example, an empirical study by Zareen et al. (2016) showed that (90%) of their participants confirmed the important status of emojis in e-messaging and that the use of emojis enhance the meaning of the messages when associated with words.

In line with this, the current study's findings indicate that all the participants agree that emotions are positively correlated with multimodality in online interaction, where all these affordances such as emojis, stickers, GIFs etc. are available to support their messages in creative ways. They believe that these affordances can better express emotions like happiness, anger and sarcasm than words. For example, Tariq thinks that "some emojis or stickers deliver my feelings in a funny way to the interlocutor which creates a nice atmosphere". Thus, the participants thought that their emotions could be visualised rather than written. Amal stated that "Lately the stickers express a lot of emotions without writing a word especially when they consist of comments".

Cultural Preferences

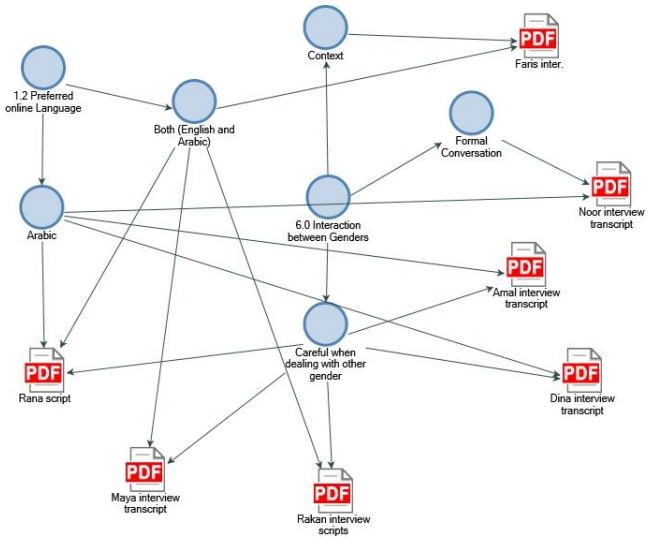


Figure 11 The relationship between the preferred interaction between genders

According to Figure 11, there is a positive correlation between language choices when interacting with the other gender as most of the participants confirmed their caution in language choices and the use of multimodality when interacting with the other gender in order not to be perceived as flirting or inappropriateness since the context of the participants is conservative. The interview data showed that five participants are cautious when interacting with the other gender. Three of these use Arabic, while the other two prefer using both English and Arabic. One participant uses a formal language when communicating with the other gender and prefers Arabic. One participant indicated that language choice when interacting with the other gender depends on the topic. All of them also indicated that using multimodality like emojis and stickers is limited when interacting with the other gender, highlighting that spontaneity is affected in this situation. This attitude, which is stressed by all the participants, may be due to the conservative nature of the Saudi society, even with the recent social changes, as Tariq stated.

Tariq raised a gender issue, which is caution when using particular words or emojis with women because he fears being misunderstood due to the conservative nature of Saudi

Arabia, although it is currently undergoing various sociocultural changes (mentioned in section 4.2). He prefers to keep his "social limits" which means that although the participant is a young man who witnesses the recent social transformations in SA, he still insists on maintaining the traditional social limits that keeps him from being in inappropriate situations. Moreover, he showed a high confidence in his convictions because he was not forced on behaving in a particular way as stereotyped about men and women interaction in SA but rather, he chose it himself.

Similarly, the other participants share the same perception about being cautious when interacting with the other gender. For example, Amal indicated that she prefers to be "more formal" when communicating with men. Maya, Amal and Noor confirmed the same tendency towards the other gender, while Dina shared that her interaction is the same with both genders. Nonetheless, Noor signposted that her interaction depends on how well she knows the interlocutor rather than their gender – she uses formal language and less emojis with those she does not know well. Comparably, previous research on relationships between emojis and personality type has disclosed that specific emojis, for example, those that reflect affection, are closely associated with friendliness and ease, a female characteristic (Weisberg et al., 2011; Wei et al., 2018). While, smiley-faced emojis may be more used by those whose extraversion is high e.g., warmth vs. assertiveness, which is considered a complex attribute in regards to gender (Weisberg et al., 2011; Marengo et al., 2017; Wei et al., 2018).

It should be noted that women' posts in this study are longer and more text-based than men, which contradicts previous studies found in the literature (Herring, 1993, 1996b; Hall, 1996; Savicki et al., 1996). To illustrate, Rakan and Faris have no text-based tweets at all, while Tariq, the youngest man participant, has only two text-based tweets. Furthermore, gendered interaction patterns are still used in DMC (Thelwall et al., 2010; Fullwood et al., 2011). For example, besides using more emojis (e.g., Baron & Ling 2007; Tossell et al. 2012), women

communication trend is to use more emojis such as “a kiss and a hug” in tweets (Bennet & Simons, 2012).

Similarly, the findings of the current study indicate that women have used more emojis than men on both platforms (164 emojis used by women while men used only 18). It is true that there were five women participants in this study and only three men, but still the difference is big. For example, Table 1 in section 4.3.1 shows that all the women use emojis on both platforms, thus emojis are almost in every post and tweet. On the other hand, men do not rely that much on emojis. This could be due to the emotional nature of women, which emojis support. Also, another point to note is although all the participants confirmed that multimodal resources help them to deliver better messages, men’s posts and tweets are almost free of emojis. This might be due to the fact that men tend to use other affordances like voice-notes in WhatsApp, pictures and hashtags in Twitter.

4.5.3.4 Anonymity (Twitter)

Participants’ views vary towards the anonymity option in Twitter, and they can be categorised into two groups. On the one hand, Rana and Faris showed that they may behave slightly different if their accounts are anonymous. For example, Faris might do this because he has been criticised previously for retweeting or commenting on cooking accounts, which for some tweeters is considered to be a feminine interest. He believes that having an anonymous account would make him unrestricted and reduce social, cultural or personal aggressive comments from others. Such negative comments affected his tweeting practice as during the data collection period he rarely wrote an actual post. Even his retweets or likes were mostly for sports topics and posts.

In addition, Rana considers that an anonymous Twitter account offers a free space where she can post more freely than usual because she considers Twitter an “image” that reflects her ideologies and opinions, rather than just a public participation platform.

Consequently, this makes her review her posts and be aware of what she posts in order to maintain the image that she wants her followers to see. She clarified "If I had an anonymous account, I'd express my feelings more freely", hence even her feelings cannot be expressed openly and spontaneously on Twitter as this may affect the image, she wants to create for her and reveal personal characteristics.

On the other hand, Tariq, Dina, Maya, Amal and Noor are against anonymity. They believe that posting under nicknames or an anonymous account is hiding. Furthermore, they share the notion that they either write what they believe in or not. For example, Tariq said:

> I have nothing to hide or fear from except the useless arguments which I usually don't involve in. I comment and try to clarify my point of view but if it will get me in silly, endless or illogical arguments I don't involve any further because I'm not interested in convincing others or forcing my viewpoint, it's only a sharing platform where people can see the different perceptions and share reviews (Tariq).

It is clear that Tariq is aware of his tweeting practice and limits, for example what to post and when to stop. Similarly, Noor believes that as a public platform, she is free to post what satisfies her, which is at the same time appropriate for others. This statement shows Noor's high level of confidence and awareness about her limits and others', which reflects a healthy way of thinking because both Tariq and Noor are the youngest participants.

With regards to the Saudi familial structure (see section 1.3.1), Rakan believes that tweeting either under an identified or unidentified account is a matter of ethics, as he said in the interview "it depends on how a person is raised up, so the choice of words and way of tweeting depends on how well a person is raised". This principle is similarly shared by Tariq's Twitter post "In Twitter, a person can hide his/her name, but cannot hide their manners". Hence, anonymity does not form any free space because he has created his own standards and considerations for interacting on Twitter. However, he indicated that there are some tweeters who have both identified and anonymous accounts in which they act differently because they fear the public reaction. Relatedly, Dina thinks that anonymous accounts are just covers to hide behind, which is undesirable for her. Correspondingly, Maya raised a crucial point:

> Anonymity didn't tempt me at all on Twitter as I don't feel that I have to hide to post. I've been raised in a family where we can negotiate most topics except taboos like sex and dating (Maya).

These statements by both participants indicate their high confidence, healthy contexts and sufficient self-esteem about one's self where they do not have to hide their identities even though with the existence of such platforms that support anonymity.

To expand the topic of taboos in Saudi Arabia as a conservative context, taboos are a global social characteristic. Even the most admittedly open-minded communities place implicit restrictions on what is appropriate to be said (Shoemakes & Tetlock, 2012). For example, Al-Faleh (2019:12) explained:

> These taboos associated with language, for example, are related to sexual activities as, for instance, the word fuck or using words like making love which are considered as a shameful act. This is also highlighted in Saudi culture as these types of acts and words are considered as taboo and also intolerable by the Saudi culture and the entire Islamic culture**.**

Additionally, all the participants consider Twitter an argumentative platform that they try their best not to get involved in because it is endless and pointless. However, some of them tend to clarify their points of views without indulging in arguments, while others just avoid those disputes. For example, Amal shared her opinion in this regard:

> At the beginning of 2011 when I joined Twitter, I was excited and had the desire to share my views and comment on common topics but now Twitter for me is just a public platform through which I can know what is going on without participating. I feel that Twitter consumes my energy in arguments and comments. It raises disagreements and quarrels which in my opinion aren't worth sharing my opinions on so I avoid these disputes (Amal).

To sum up, it can be argued that this project's findings contradict previous results discussed in the literature chapter (see section 2.4.2) regarding the internet being a liberating space in which users can negotiate and "adopt identities at will" by "wearing online masks" to enrich the "democratising effect" of the internet (Tagg, 2015: 60). This makes the internet a relaxed context (Bechar-Israeli, 1995; Danet et al., 1997; Deumert, 2014), and to support this, most participants in the current study disagreed with posting under pseudonyms.

4.6 Conclusion

There are several significant findings in the current study in attempting to answer the research questions, and several findings come to the fore. First, multimodality plays a fundamental role in the participants' online interactions – all the participants use it to varying degrees. In addition, the participants' main CS online behaviour is interchanging linguistic and non-linguistic resources employing both Arabic and English and the multimodal affordances.

This result may be due to many facts. Firstly, multimodal affordances fill the gap arising from the limited view of body language, and using these affordances is easier for the users than composing text-based posts, which for most participants may cause misunderstandings on the recipients' side. Some multimodal affordances change according to trends; it was noted that most posts consist of stickers instead of emojis to show that the users are updated and keen on following the norms of online interactions. Multimodal affordances tend to be basic in online interactions as they are one of the mostly highly used features, making online interaction unique. In addition, these multimodal affordances allow the users to re-explore some of their personas' characteristics, for example they can revise their replies before sending them and listen to their voice-notes to work on some weaknesses. Moreover, the multimodal affordances are employed by the users to reveal other characteristics they lack in offline interactions, such as a sense of humour and wisdom.

With regard to the first research question, which is about the linguistic practices used by bilingual Saudis online and their motivations, the study identified several practices and their uses. Firstly, the most-used practice among the participants is Arabicization. The participants' bilingual abilities enable them to manipulate the English words to fit their daily linguistic needs. Moreover, this linguistic competence seems to characterise specific generations or speech communities, which makes these Arabized words common and considered as a sign of social symbolism.

Secondly, a unique practice is reported in this study, that of prayers. This reflects the status of Classical Arabic and the Islamic teachings in some participants' posts. Also, the effect of the Qur'an can be detected in the rich and varied body of religious expressions, which creates a unique feature of the Arabic language. This practice can be found in many forms; i.e., the prayers quoted from the Qur'an, the prayers quoted from the Sunnah of the prophet Mohammad (peace be upon him), and the prayers composed by the users.

Next, with regard to the motivations of CS, the study found that showing off is the most reported finding amongst the participants – one not previously documented in the literature. This finding emphasises that English has a prestigious status in Saudi society. It is worth mentioning that most participants indicated that they viewed some code-switchers as showing off, but this may also be the case for themselves, but they cannot admit it because it is self-reported data. Moreover, they added that some CS is not necessary because Arabic alternatives are available, but their posts revealed that they used CS in many cases where it was not necessary.

Fourth, one of the reported motivations for CS is language development. Online interaction helps the participants to enhance their English language use. Some of them shared that this supports their second language use and encourages them to CS more because it enables them to, for example, avoid typo errors and use more advanced vocabulary. It is crucial to mention that online interaction may also help its users to copy other peers' linguistic activities in order to follow the norm of the online interaction. It may also have the effect of enhancing/developing their own language skills.

Fifth, with regard to the second question, several themes emerged from the participants' common reported data such as CS is an indication of lack of confidence and identity loss. Another theme is that the participants are now interested or tempted by the option of online anonymity in Twitter because they indicate their full awareness of their social limits. In

addition, emotions are discussed as associated with language, it was found that most participants prefer switching to English for swear words because they believe that switching the code makes the impact less aggressive and negative for the recipients. This debates the notion that a realization and expression of emotion as a communicative act is more challenging in the second language learned later in life than in first language. Also, Dewaele's (2007) research which indicated that swear words in the first language have more emotional force than swear words in the second language, this finding has not been reported in the literature. This may be due to the fact that Saudi society has a unique sociocultural nature, at least among specific social classes that consider swearing in Arabic inappropriate and serious. Interestingly, this has become a norm among most of the participants because most of them reported it, even though it was not one of the interview questions.

In addition, one of the remarkable findings in this study is the caution among the participants when interacting with the other gender, either linguistically (formal language) or non-linguistically (multimodality). This view may be due to the limited informal interaction between both genders in the Saudi society – the context of this study's sample – especially because they all explained that this caution is to avoid misunderstandings such as flirtation or disrespect, which can be created by such attitudes.

Finally, after discussing the difference between CS and TL, the study's results show that the findings of this study are CS in nature via a TL lens to fill CS approach gaps and most of the results (discussed in this chapter), if not all, support Wei's notion of TL (2018) which is that multiliteracy is one's ability to decode multimodal communication, and that this multimodality contributes to meaning. This is applicable to the online affordances used by either monolinguals or multilinguals and perceived not only by specific generations but also by any online multiliterate. The relationship between this study and TL is that, in the absence of paralinguistic cues online, this study's findings argue that language is limitless and

continuously developing through a process of “languaging” and demonstrate how bilinguals employ all textual and semiotic options purposefully to achieve their communicative goals and to create appropriate interactions.

The next chapter will discuss the data with an emphasis on the sociolinguistic approach, and how the appearance of CS is analysed according to it.

Chapter Five: Discussion

5.1 Introduction

This study was undertaken to investigate how bilingual Saudis employ online interaction, specifically on two platforms (WhatsApp and Twitter), to communicate (see section 1.3.1). Thus, this sociolinguistic research is implemented to answer the following research questions:

- What CS practices emerge in online communication by Saudi bilinguals? For what reasons?
- How do the participants employ online interaction to fulfil their social purposes?

This chapter presents a discussion of the CS data reported in Chapter Four. The discussion of the data is based on a model that merges different models and approaches to analyse data on bilinguals' CS. The major focus of the mixed methodological approach in this study is the sociolinguistic approach and how it analyses CS. The data analysis model is based firstly on Herring's CMDA framework (2004, 2007) to examine the social and technological factors of online platforms; secondly, on Al-Wer's (2013) approach of grounding the data to investigate the code-switched data; thirdly on TL approach (Wei, 2018); and fourthly on TA (Clarke & Braun, 2006) to identify the meanings in the data.

Firstly, following Georgakopoulou (1997), an attempt is made to examine how the participants made advantage of their linguistic resources for the purpose of increasing the

functionality of their online communication, and to consider different codes which enhance the pragmatic functions.

Secondly, following Herring (2007), a closer look at the interconnection of the communication channels and social/situational elements to understand the pragmatic functions. Moreover, Androutsopoulos' (2013: 688) suggestion that "rather than examining CS online in terms of its authenticity or equivalence to offline speech, a more productive question to pursue is how CS is used as a (pragmatic) resource, under the specific conditions of communication offered by digital media". Thus, it is crucial to examine "how specific conditions of written online discourse can give rise to distinct CS".

Even though the adequacy and transferability of the frameworks originally developed for the analysis of spoken discourse and written discourse (including DMC data), they have been questioned (Hinrichs, 2006; Androutsopoulos, 2013). This study looks at whether the theories of CS (describing motivations and discourse functions of CS) based on spoken data apply to CS data from DMC contexts as well (Barasa, 2016).

This chapter is organised into several themes using TA (Braun & Clarke, 2006) in an attempt to theorise what has been reported in the findings chapter. These themes have been situated in an attempt to answer the study's research questions. The first theme deals with the nature of online communication. The second theme analyses how language shapes human communication and how bilinguals communicate. A discussion of CS in DMC and offline modes is the third. The fourth theme is the role of Arabic cultural references in this study. Language and emotionality are the fifth theme. The chapter ends with an overview of the current study implications.

5.2 The Nature of Online Communication

Crystal (2011) maintains that it is more realistic to think of speech and writing as being the products of a multi-dimensional continuum. Within this continuum, a particular spoken or written language can be located as being more or less like speech and more or less like writing. This multi-dimensional continuum approach to the differences between speech and writing underlies the statement that the language of DMC is best viewed as a mixed medium of communication.

In terms of interaction, this study argues that the nature of online interaction makes the participants less impulsive. This corresponds with the findings of Cudo et al. (2020) that online interaction may make some users less impulsive and unwilling to engage in online conversations. For example, Rana shared that in face-to-face conversations she is unable to express her opinions in a satisfactory way, but online conversations provide her with the time she needs to prepare before posting. Thus, the space that online platforms offer assists her to be more cautious and thoughtful, “Sometimes in face-to-face communication my ideas are not well articulated or others interrupt me, while writing a text or recording a voice-note allows me all the space I need” (Rana).

Likewise, Maya said that she sometimes felt out of place and irritated by making typo errors. Thus, in WhatsApp group conversations, she was always left behind because she took longer replying, in order to double check her chats, but by that time the interlocutors had already moved onto other topics. She said:

> Most of the times my reply sounds out of place especially in WhatsApp groups where others start chatting about something different while I’m still writing. It is true there’s a reply option but sometimes it’s too late to use it (Maya).

Also, Rakan has a similar view towards online interaction with regard to the space it allows him to express what he is unable to say in offline interactions. This is because online interaction permits him to communicate without focusing on his interlocutors’ emotional or

verbal feedback, which may influence the flow of his ideas: “sometimes I write what I can’t say in the offline communication but behind the screen I can write without any emotional effect or interruption from the interlocutor” (Rakan). Comparably, from a wider perspective, Faris believes that online platforms help their users to not only improve the way they post but furthermore, they open doors for them to widen their audiences, enhance their interests and enrich their experiences:

> Online platforms provide easy access to communities of practice that I may not be able to create offline. I also can be a listener and information keeper without any sarcastic comments like in offline communication, whereas for me it is impossible to be somewhere sitting and just listening without participating (Faris).

Similarly, Dina confirmed that the nature of online interaction enables her to deliver better messages, rethink her replies and offer time to choose the right words. This is although she indicated in the interview that she prefers the offline interaction because it is more interactive. Additionally, Amal believes that some people communicate well using online communication whereas others are better in offline communication because they are better at employing the right words to deliver the complete message,

> Online interaction happens in your best situations where you feel that you want to share something while in offline interaction some elements ruin that aptitude like noisy backgrounds or interlocutor’s distractions (Amal).

In one way or another, the participants indicated that online platforms allow people to show different personal characteristics in some situations that contrast with their offline ones. For example, Amal stated that some people who are shy in their offline interactions find online platforms a space where they can express themselves or behave freely and confidently. Their lack of confidence prevents them from confronting others face to face as they might receive negative comments or may not be able to prove their points of view.

Similarly, Rakan reflected on his tendency to write online what he cannot say in offline communication because “behind the screen I can write without any emotional effect or interruption from the interlocutor”. He also added that when people are asked about the reason

for being different online, they admit that when they are not in public, they feel relieved about not being restricted by any social, age or educational barriers that might slow down or prevent the flow of their messages. Rakan added that in online interactions, people who disagree with what is being said may block the user but in offline interactions this is not possible.

According to Kitchen (2005), some people who are active online but silent offline may suffer from a type of glossophobia, which is defined by Kitchen as, "speech anxiety or fear of public speaking" (2005: 3). He explained that such "phobias are rooted in the normal fear response and that some phobias are culturally specific" (2005: 3). This declaration about the relationship between specific phobias such as glossophobia and culture leads to a question about Saudi culture, which may assist in the growth of this phobia.

It is worth noting that in most Eastern cultures, speaking to elderly or teachers is subject to some rules (Sung, 2001). Hence, the absence of the age aspect in online interaction means that opinions and responses are delivered unconditioned at least by the age barrier. Relatedly, the literature notes that people act differently online and offline. Wallace stated that people may behave un-self-consciously when "they think no one can find out who they really are" (1999: 239). This is because the degree of anonymity influences behaviours and may cause *de-individuation,* a coinage from Festinger et al. (1952), who generated the term to define the influence of a group on individual's performance (aforementioned in section 2.5.2).

To sum up, this section argues that online interaction allows its users to reveal some personality aspects they lack in offline interactions. For example, they are more confident due to the time and space that online interaction provides to consider what to write; these are lacking in face-to-face communication. Another critical aspect that this study debates is the fear of public confrontation when discussing opinions, interests or disputes. It is this particular DMC characteristic that stimulates the participants' hidden feelings and enables them to be released due to the absence of sociocultural boundaries. Accordingly, this study states that the

participants feel free to communicate by any means including CS as a tool for expression with no fear of being criticized as in the offline interaction due to the fear of public reaction. This may explain Barasa's (2016) statement (previously mentioned in section 1.1) that computer-mediated environments can redefine and recreate the traditional concept of identity, because those settings are rich with new characteristics that on the one hand can help users to express themselves innovatively and on the other hand can reconstruct their identities, either completely or partially (Berthon et al., 2010).

Furthermore, this study supports the concept of *de-individuation* by how individuals in the online continuum are affecting and affected by the online community. They use the same specific linguistic and non-linguistic features that enable them to be accepted in that community and make their participation comprehensive to other users. For example, one of the effects these features evoke is the CS practices, as in many cases the interlocutors act as a mirror for whom they are interacting with by using a specific language such as English over Arabic, replying with voice-notes to voice-notes or with stickers to stickers, showing their ability to simulate the interlocutor's language choices. This indicates how technology has allowed us to understand mirroring and speech accommodation on a new level. Thus, the situation for bilinguals and multilinguals is more than just possessing options for communication, it is rather a matter of appropriateness because interlocutors have their own agendas when communication with others, therefore they choose the best communicative vehicles to deliver their agendas, convey the meanings and emotions.

In addition, some shared posts on Twitter act as a spark for others to share their opinions and enhance their feelings of belonging to several communities of interests or social attitudes that may be considered unacceptable in the offline world due to the conservative society like Saudi Arabia which follows many tribal and social barriers, traditional culture and the realities of offline communication. This section presents an attempt to bridge the gap of

some unrevealed characteristics that online interaction facilitates for the participants in this study as a contribution to online social interaction in the sociolinguistic realm. The next section analyses online communication and how it is used by Saudi bilinguals.

5.3 Online Language and Communication

This section uses conversations to highlight how the study's participants use and employ online platforms to communicate. The participants indicated that WhatsApp and Twitter allow some visual and audio affordances that enable them to deliver their messages clearly to the recipients. These are valuable because according to them, body language like tone of voice can still be heard in voice-notes via WhatsApp but was not possible on Twitter at the time of data collection. It is worth noting that Twitter has recently updated its affordances and it added voice-notes in 2021. In terms of body gestures, these can be replaced by emojis, stickers, GIFs etc.

In addition, online communication is described by North as "particularly playful" (2007: 546) for two reasons. The first one relates to its textual resources while the second one refers to the time delays that allow participants to review their responses and create witticisms. For example, this can be seen in Rana's statement when she stated that "Honestly, online provides me a chance to show some aspects in my personality more than offline like the sense of humour like jokes and exchanging funny texts and stickers". Moreover, the fact that previous messages can be viewed at any time must also contribute to participants' ability to retain the flow of the threads.

This study argues that one of the fundamental aspects is the readiness for communication, which online platforms support and which was reported in other studies such as Burroughs et al. (2003) who found a relationship between self-perceived communication competence and willingness to communicate, McCroskey and Richmond (2009) whose study

reported that significant differences exist in such tendencies among people in different cultures and Ganster et al. (2012) study about person perception and non-verbal communication indicating that the equivalence of the multimodality affects the impression formation (previously mentioned in section 4.6.2).

In this study, the researcher as an observer and a participant from the same culture supports this notion. However, an implication is that it might be difficult for someone outside the Saudi culture to understand this. Nonetheless, it is important to note that Saudi Arabia is a huge country with many diverse subcultures that consist of different social, economic, educational and cultural backgrounds and thus it cannot be generalised to the small sample of this project. Furthermore, the objective of this research is not to produce an overall view of Saudi society's online interactions, but to understand some online sociolinguistic behaviours. Indeed, the participants indicated in the interviews that one of the many privileges of online interaction is that they are not obliged to communicate unless they are willing and prepared to do so – a development that enhances their participation and maintains the flow of their ideas.

To summarise, this section argues that the participants employed online platforms for the purpose of communication, facilitated by two factors: the advantage of online affordances that substitute for body language in offline interactions that allow the users to feel the meaning not only read it; and the asynchronous nature of online communication, which supports readiness for communicating in a specific culture. The findings of the current study correspond with both factors as the Saudi participants showed that online communication helps them to deploy such affordances, either to replace the lack of some body language aspects or to reveal other personal aspects they cannot reveal in offline communication. This proves the TL notion that language has no fixed limits, it is rather an ongoing process which signposts that multiliteracy in the recent era is one's ability to decode the multimodal communication and interact with the same means. Moreover, the asynchronistic features of DMC enable them to

interact whenever they are ready to, unlike offline interaction where an interlocutor has to interact immediately. Therefore, this study demonstrates that CS is a power that enables its users to find solutions for their linguistic and social neglected aspects or exits for some impasses.

5.4 CS in DMC vs. Offline Communication

Researchers have argued that CS is a self-repair tool (Auer, 1998; Wei & Milory, 1995; Alfonzetti, 1998; Matras 2009). In face-to-face interaction, it is often used with other repair practices like those that Poplack and Sankoff (1988) called "flagging" hesitation pauses, vowel stretching and other paralinguistic characters such as body gestures. The normal and the appropriate communicative behaviours used for adaptation are interrelated with pragmatic language alternation.

The pragmatic functions of the juxtaposition of two or more languages can be one of the communicative functions listed above for signalling opposition and disapproval. This notion can be detected in the current study when the participants indicated that online interaction multimodal affordances can be both substitutes for body language (voice-notes, emojis, etc.) and a self-repair tool due to the space it provides to rethink their replies and participation. One of the objectives of this study was to provide a unique insight into the interactive sociolinguistic world of bilingual Saudis' DMC habits, so in order to explore that systematically, the data shows several characteristics that shape the interactive sociolinguistic world of the participants and their DMC habits. These characteristics are discussed below.

5.4.1. Language-related Characteristics

The interactive sociolinguistic world of bilingual Saudis' DMC habits was investigated through the semi-structured interviews conducted with the participants. Through the

interviews, the participants' interactive DMC habits were revealed, as well as the factors that contributed to the appearance of those habits online.

In terms of the preferred language to start a conversation, some of the participants preferred to start with English while others used either language, depending on what they were conversing about and who their interlocutors were: "Both languages are ok, and conversations start in any of them spontaneously and according to the message itself and who I'm interacting with" (Tariq). This is a direct connection with what Goffman (1974, 1979, 1981) calls the theory of "footing", which can provide a lot of CS functional descriptions. Footing concerns the multiple roles that interlocutors have during an interaction. Those roles are related to different reasons such as purpose and context because English has "useful expressions" that can fill gaps that exist in Arabic, such as *"long time no see", "my bad",* and *"ups and downs"*. Switching to those English terms is done because they convey the intended meaning better than Arabic words. The motivation for this use is to clarify the message and make its decoding smoother, as Gumperz (1982) and Malik (1994) put it. This is about using language to perform different social functions that are related to the context and interlocutors.

Goffman (1974) also identifies a "frame" as a social limitation that makes individuals feel obliged to act in a specific way when interacting with others. In addition, the participants explained the frames, the purposes and the contexts in which they use Arabic, English or both. Among the frames in which the participants CS to English in their DMC is when there is a lack of an Arabic language equivalent for a lexical item or term. In other words, CS takes place when the interlocutor wants to use words that do not originally exist in Arabic or would be difficult to translate into Arabic. The participants code-switch to English because they feel that these words express exactly what they want to say. One of the participants noted that these non-Arabic words are derived from other cultures, which explains why they do not have an equivalent in Arabic because they are not part of the Arabic culture. Malik (1994) and

Muthusamy (2009) refer to the point that speakers CS when they cannot find a suitable expression to continue the conversation smoothly. In this case of using CS, the speakers use English because they want to express the exact meaning embodied in the English word so that the interlocutors can better comprehend the message.

Another factor that explains the interactive sociolinguistic world of bilingual Saudis' DMC habits is that it is easy to double check English words and to choose the right spelling and grammar. Competence in English plays a role in the extent to which English words are used in Arabic conversation, especially for those participants who reported their English proficiency as weak, like Rakan. Some participants find it easy to use English words and terms with Arabic-speaking interlocutors because no one will notice any mistakes in grammar or spelling if these appear during an online conversation. There is less pressure on the speaker because they do not worry about making mistakes in English; Amal described it as a load taken off their minds because it is not their native language. Thus, this study argues that CS in itself is a tool for expression without being criticised because it is a second language. Some participants believe that using a second language should not follow perfect rules and they are excused for making mistakes because it is not their first language. Therefore, it can be inferred that CS is practised as an escape from linguistic criticism.

Worth noting is the participants' claim that the prolonged use of English words in Arabic conversation results in the acquisition and possible subsequent improvement of English in Arabic conversation. Some participants find using English words and switching to English a good way to improve their own English language skills and to acquire more vocabulary and grammatical knowledge. Some of them also prefer under various different circumstances to use words in English because these were originated in the English culture and thus embody it. Hence, this study argues that code-switchers adjust and modify their language and CS practices according to the interlocutors' age and their language proficiency. There is evidence that the

participants code-switch to English when both of the interlocutors can understand English. The participants also use CS less with the elderly because the latter do not understand English and because they prefer to communicate in formal Arabic, which is a part of their tradition.

5.4.2. Speaker-related Characteristics

Speaker-related characteristics are those that identify the socio-psychological aspects of the participants' interactive actual interactions, DMC habits and self-reported perceptions. The data analysis shows that the participants feel there is more freedom to express their views online and to acquire a "virtual identity" related to one's self-growth in cyberspace, which can be completely different from their real-life identity (Yee & Bailenson, 2007, further discussed in section 5.9). Moreover, shy people explained that they can act as more confident people online. However, some participants shared their view that some code-switchers show off as a way of demonstrating superiority by having the privilege of speaking another language, as some of them actually code-switched in unneeded situations. This is evidenced by Rakan, who believes that "When the setting is Arabic, and the speaker is Arabic, there's no need for CS; [it] is embarrassing because those people aren't proud or confident about their mother language or identity". The use of CS is also seen by some participants as a violation of the national, social and cultural identity. For example, Rakan related CS to a complex of recognition, where some code-switchers seek recognition by CS which implies that those whose English competence is good are considered superior and privileged by some Saudis' perceptions. Thus, the linguistic choices–CS on top of them– which the interlocutors make, are signs of their authenticity and fakeness of CS based on other factors.

This participant associates CS with being not proud of one's identity and mother tongue. This raises the question of identity, not being proud of the mother tongue and the relationship between this and using English words and terms in Arabic conversations. In another dimension, CS makes even swearing in English possible for some participants who

would never swear in Arabic, because it comes across as more serious and harsher in Arabic (further discussed in section 5.7).

From another perspective, Tariq wonders if CS is a feminine behaviour that is not suitable for men, as described by some Saudi men communities. The latter assume that men's language should be formal and free from CS. This assumption is largely unsupported, as research by Panhwar (2018) on CS and gender identity in Pakistan shows that CS has little to do with gender, but that women engage in CS to discuss issues related to female identity. That was also true for the construction of female identity, as participants in that study used various CS strategies, including recycling and translation, to give weight to their arguments.

Arguably, the current study findings indicate that both genders use online CS on a similar basis, which confirms that CS is not exclusive to a specific gender, at least on the basis of the small sample in this project. However, the majority of the participants point to the fact that dealing with the other gender online requires caution; because they belong to a conservative society in Saudi Arabia, they usually use formal language when they communicate with the other gender. Also, they use less multimodality to avoid being misunderstood in terms of inappropriateness or flirting.

To sum up, several linguistic and sociolinguistic characteristics shape the interactive behaviour of this study's participants when using DMC. These characteristics can be related to language, such as language proficiency. Other characteristics are related to the speaker and their English competence; if this is good, it provides an additional linguistic-cultural domain that can be employed for better communication. The other characteristics are pragmatic or context related in the sense that the degree to which the speakers code-switch to English or use English terms and words is determined by the context of the communication as well as the interlocutors, the purpose of the communication, and the speakers. In addition, socio-

psycholinguistic aspects shape some of the motivations for CS, like showing off, gender-relativity and CS as an issue of lack of confidence.

This study argues that CS is more than a linguistic choice; it is rather a moment of making and taking a stance through "footing" (Goffman, 1974). This is because online interlocutors act differently according to the context, mood or topic of conversation, and in DMC, more stances can be taken due to its multimodality and asynchrony. This enables the participants to reveal or adopt social characteristics that are missing in their offline interactions, such as humour and wisdom. Moreover, the stance that an interlocutor takes is due to other sociocultural judgements that might put an interlocutor under pressure to adopt certain linguistic choices. For example, CS is considered a feminine linguistic behaviour in some masculine communities. Also, "framing" (Goffman, 1974) is a notion practised in this study as the participants are obliged to conform to some social restrictions. For example, due to their social backgrounds and traditions, they are obliged to act in a certain way in order to belong or be accepted by the e-community.

Another point to argue in this section is the affections associated with each language. On the one hand, some participants consider CS to English unnecessary in many cases and a sign of a lack of confidence (e.g., Rakan). The argument here is about the credibility of this statement because this participant's English competence is at the beginner level, which raises a question about his views of CS to English. He might consider it to be caused by a lack of confidence because he cannot practise it easily due to his incompetence, thus his lack of confidence forms this view. On the other hand, Noor indicated that Arabic language is a beautiful language and using it is a source of pride, although her English competence is good. However, the common perception of Saudis is that CS can be a way of showing off and the awareness of this motivates the participants' preference for using Arabic, to demonstrate that they do not belong to this "showing off group.

5.5 Arabic Data

Arabic-speaking communities are a rich resource for exploring CS. The younger generations prefer to use more "English borrowed words and expressions in their interactive styles to be distinctive from older generations" (Hassanein, 2009: 766). In some Arabic countries, gender appears to play an important role in speakers' CS presentation. Sadiqi (2003: 158) observed Moroccan women in mixed-gender interactions and they switched between French and Moroccan dialect of Arabic more than men, maybe to show social prestige and "to 'fight' for self-assertion". In formal settings, studies conducted in Hebron and Jordan concluded to important differences regarding gender-usage of English borrowed words chosen surveyed from university students (Atawneh, 2007; Al Batoush, 2014).

Literature has showed that Arabic women tended to insert considerably more English loanwords than their men counterparts. Atawneh's study (2007: 33) found that women used double the number of loanwords than men, mostly in the semantic domain of "health, body, foods", while men used more loanwords related to the "car industry". This difference was considered as a sign of the different interests of each gender. Nevertheless, there was no difference observed in Arab women and men's usage of loanwords related to the "computer industry" (Atawneh, 2007: 34) because computers have become an essential aspect of a modern lifestyle. Yet, in line with semi-structured linguistic interviews, Sayahi (2011) indicated that gender was not a significant influential element for Tunisians in either CS patterns or frequency by Tunisians from Arabic into English. However, education was a main element because the results showed that college level Tunisians used French CS and borrowed words more than high-school Tunisians. It is worth mentioning also, that Atawneh's (2007) and Al Batoush's (2014) findings were established from questionnaires while Sayahi's (2011) study was based on recorded verbal data from interviews. However, CS is a social phenomenon that should be

ideally examined in natural scenarios. The present study aims to explore CS in natural contexts by examining the casual conversations of bilingual Saudis.

It is worth mentioning how bilinguals are affected by English and how this effect is obvious in their interaction, both offline and online. To illustrate, in a study by Mahmoud (2013), he reveals that MSA possesses some linguistic features that are formally different but comprehensible, such as borrowing, translation and CM. This reduces its exoticism. Some of the cross-linguistic transfer from English involve colloquial Arabic than MSA, particularly partial Arabicization (Mahmoud, 2013).

Examples of partial Arabicization are:

(إيميلات) (imaylaat = emails),

(مسجات) (masijaat = messages)

(مسكولات) (miskolaat = missed calls)

(موبايلات) (mobaylaat = mobiles).

Examples of derivation are verbs such as

(فنش) (fannash – finish = fired)

(كنسل) (kansal – cancel)

The current study experienced the same process of Arabicization such as:

1/ “bafarwerd lkm = I’ll forward it to you” in extract 1 (see section 4.3.1).
2/ “accounthum = their account” in extract 1 (see section 4.3.1).
3/ “mkaptherah = I captured” in extract 2 (see section 4.3.1).
4/ “kayatah = cuteness” in extract 5 (see section 4.3.1)

Another linguistic influence that makes Arab bilinguals’ MSA sound strange or ‘foreign’ and sometimes unfamiliar to monolinguals is the loan translation known as calquing. It creates new expressions that need time to be adopted into MSA. Arabic mass media develops

some of its content from foreign sources, which affects the structure, style and lexicon of MSA. An example of old calques in MSA:

[He gave me the green light**]** **أعطاني الضوء الأخضر**(ibid, 2013: 40)

The current study showed similar loaned cultural expressions like "a moment of silence" and "friend zone" from extract 6 (see section 4.4.1.3). The previous examples are vivid and live evidence of the common CS between the two languages, online and offline. Also, they show the social and linguistic impact of CS, which can serve as a platform for the current study objectives. Thus, this study has evidence that the participants' CS both inter-sententially and intra-sentencially are based on different scales: first, to serve the meaning linguistically as the single word or expression insertions. Second, to serve the meaning pragmatically by employing cultural insertions. Furthermore, Arabization is another proof of the participants' linguistic skills to reform words and merge both languages to create communicative connections. Even though in some cases where SA is used, there is still an obvious dominance of their bi-cultural knowledge. They mix not only languages but also cultural notions with the aim of delivering expressive, meaningful messages and pragmatic functions. Thus, it can be argued that CS has marked a distinguished change in the use of colloquial Arabic in online written interaction as well as the spoken language. Also, it can be stated that internet has allowed an explosion of the creativity when using the colloquial Saudi Arabic because it allows sharing things and switching varieties from formal such as poetry and prayers to informal such as songs' lyrics and jokes in other Arabic varieties that seem awkward in the offline interaction. These practices are considered a lease to use all the beautiful Arabic heritage that may look inappropriate in the offline communication. Technology made these practices possible as written practices and acceptable, whereas prior-technology, we could only share some options orally in the spoken interaction which makes writing policy scholars uncomfortable due to the reality that bilinguals and multilinguals behave in a way that serves them without considering the language policies

or ideologies which sheds light on Arabic. Hence, this study has highlighted the reality that technology has allowed Saudi Arabic to be used and distinguished in a different way than face-to-face interaction by systematic analysis.

Another aspect to highlight is that all the participants in this study–although different in age, gender and English competence– show full understanding and a positive attitude towards the usage of the practices found such as Arabization which signals that this language is acceptable and comprehensive in the Saudi bilingual online community in this study. Also, the findings marked that CS is considered in some situations a switch from informality to formality especially when interacting about professional purposes. Therefore, it is suggested that Saudi bilinguals in this study can code-switch at varying degrees due to their English competence. Thus, there is the simple English insertions and there is the hybrid bilingualism that involves a high degree of mixing semantics and structures from both languages. This hybridity is an ongoing process because as seen in this study's data, Arabized or Anglicised words are continuously created according to the interlocutors' need to make communication easier and more accessible.

It can be proposed that this type of CS supports Wei's (2018:18) notion that "multilinguals do not think unilingually in a politically named linguistic entity, even when they are in a monolingual mode and producing one nameable language only for a specific stretch of speech or text" to form what he calls TL "instinct" (2018:19).

5.6 Language and Emotionality

It is crucial to stress internet users' communicative abilities in substituting facial expressions, tone, voice, pitch and gestures in face-to-face interaction with emojis that are widely used in DMC specially to decrease the negative impact. For example, Wang et al. (2014) who investigated the impact of certain emojis to accept negative feedback. Also, David et al.

(2016) whose study in Malaysia concluded that borrowing and CM between Malaysian and English resulting in creating new curse words for the purpose of maintaining diplomacy. However, Rudra et al. (2016) indicates that Hindi (i.e., the native language) is preferred over English for expression of negative opinion and swearing (previously discussed in section 4.6.3.2).

To debate both studies: Dewaele (2007) and Rudra et al. (2016), this study argues that bilinguals prefer to swear and give negative feedback in L2 English because it has less impact on the recipients, either because the participants' social background does not allow these words or due to the seriousness and harshness that Arabic swear words imply. In one example, CS to English for criticism purposes (see extract 3 in section 4.3.2.2) was chosen by the interlocutor to show professionalism and objectivity because the interlocutors are co-workers. The CS in this example facilitates acceptance of the criticism by the recipient, although some used words were hurtful such as 'naïve' and 'silly'.

It is a fact that emotions play a very big and important role in this study's data, but apart from swearing and negative feedback, they are mostly expressed by the emojis and stickers which present universal means of communicative repertoire except those associated with the Arabic culture. Before conducting this project, I did not realize how emotions are authentically communicated but through this study, I was able to magnify how multilinguals employ all the available tools they possess to achieve their communicative goals.

5.7 Performativity

It is crucial to point out the speech acts discussed in section 2.11. This notion can be detected clearly in the current study in the prayers' practice. The participants share these religious practices publicly to be 'well-seen' as virtuously following religious teachings. As presented in the findings chapter, some tweets basically convey only these prayers without any

further texts or explanations as if they are indications of the participants' belonging to the Islamic group. This markedly exchanges such prayers on specific holy occasions like Fridays or Eid, which often become a trend that is displayed by the hashtag symbol # in the Twitter search box, with millions of participants from all over the Islamic world. Thus, some online affordances such as mentions and hashtags are considered speech acts in online interactions to draw other' attention.

In addition, it is important to highlight the discussion of uptake – how meanings are understood by the others – which is equivalent to the present discussion of how meanings of multimodality and other online actions such as hashtags can be similarly understood by the online community. These online actions are interactive in three ways: first, some acts are interactive which need reactions from the other interlocutors such as mentions @ in both platforms WhatsApp and Twitter; second, they convey the same meanings for both users, senders and recipients; and third, both meaning and uptake relate to the sense of activity. In saying something, another's uptake (understanding) of what is meant is crucial for the act to be effective. This activity can be verbal or non-verbal, based on the type of activity. This is applicable to the multimodality in this study's findings due to its essential role in enhancing the meaning of a message, lessening the impact of negative feedback and acting as replacements for words. This was reported by the participants in the interviews and it can be seen in some posts where there were only emojis or stickers. The visualization of emojis and other visuals, how they are read and interpreted by our brains as a part of the message is presented in this study's findings. The sense of understanding depends on the act having the same meaning for the online community; this is what makes such acts successful. Some acts in a sense then, need the input of others to secure the significance of a performed action. Austin (1962) added that without uptake being obtained in those cases, the speech act is considered unsuccessful.

Comparably, this study argues that this notion of the actions represents people's performances on social media. To illustrate, social media actions confirm how people share the same perceptions to secure uptake, for example, how they react to a post by showing understanding. The concept of an online platform can be presented as involving togetherness, using communicative acts and their uptake. By posting, one becomes involved in acts of communication with a group of people, afforded by a technological medium enabling a variety of reactions. In line, on Twitter, some collaborative affordances such as like and retweet options are considered types of actions. These are not thoroughly studied in this study and may represent a rich area for future research.

5.8 Language and Identity

Since the early research on identity in the 1950s, numerous technological and environmental aspects of communication have reformed how we think about personality and moreover how we present ourselves to others (Cerulo, 1997; Marakas et al., 1998). Therefore, the widespread and growing involvement with the virtual environment raises the recognition of novel identities, which plays a part in modifying the traditional concept of identity construction (Zhao et al., 2008). In this sense, Turkle (1997) stated that computer-mediated environments can redefine and recreate the traditional concept of identity, because those settings are rich in new characteristics.

In addition, the concept of speech accommodation (Giles & Powesland, 1975) is presented as the speaker's attempt to "modify or disguise his persona in order to make it more acceptable to the person addressed" (ibid, 1975: 159). This can be viewed as what Goffman calls a speaker's "face", which can be defined as:

> The positive social value a person effectively claims for himself by the line others assume he has taken during a particular contact. Face is an image of self-delineated in terms of approved social attributes (Goffman, 1967: 5).

Brown and Levinson (1987) proposed the notion of face as the self-image every individual chooses to be seen as. Thus, they argued that an interlocutor has two faces: a positive face that can be considered as the desire to be accepted by others, and a negative face that can be defined as the need to be unrestricted by others' limits. Hence, this study's major contribution to the field is to explicitly state that CS has a function in discourse according to the notion of face and speech accommodation.

The relationship between discourse and identity is an interrelated one. Tracy (2002) clarifies that the identities carried out in our interactions affect how we communicate. Under the sociolinguistic notion of discourse, identity and multimodality can be brought in, as well as the micro-discursive features and the interactive patterns used by social actors to form communities (Herring, 2004). The sociolinguistic approach also considers building identity as a collaborative process wherein each user behaves in a way that represents how each one likes to be seen by others. Social media gives users the opportunity to express their views with relatively more freedom and to hide behind identities they have created as the result of the use of social media.

As mentioned above, most of the participants attempt to look knowledgeable by CS to another language when answering the questions and the enquiries of their interlocutors. They develop the topic and do their best to answer their interlocutors' questions. For example, Faris in extract 1 does his best to show Tariq that he has good knowledge of a takeaway restaurant with excellent service. Additionally, in extract 5, Maya uses words such as 'class', 'nice' and 'cute' to show her positive attitude towards the party. They all internalise a role that they need to play online, which is that of a knowledgeable, positive and confident person, in order to remain in the online community. This creates an online identity that expresses itself through CS, an identity that is only valid on social media. This identity has more freedom than the real identity because it is unknown and thus escapes face-to-face comments and criticism. In extract

3, for instance, Faris conceals his anger and dissatisfaction with Noor's presentation by using English utterances that express his opinion in a mitigated way.

The current study argues that the participants play different roles and show different aspects of their identities when they are online. This can be detected in how the same interlocutor's linguistic and non-linguistic practices differ due to the platform such as posting poetry on Twitter but not on WhatsApp and writing more text-based messages on one platform than the other which reflects a desire of how to be seen by others. These practices stress that identity is not predetermined but changing due to different contexts of interaction. In addition, the participants conform to the rules of the virtual community, thus avoiding being criticised or blamed. The data observation shows that there is no objection in the responses of any interlocutors. They agree with each other's statements and the conversation runs smoothly so that no one feels depressed or rejected. As mentioned above, the virtual community created on the WhatsApp platform is a reflection of the larger Saudi society, which is ruled by a collectivist culture marked by devotion and loyalty to the group's cultural and social norms, regardless of individual interests. Satisfying the group's needs is similarly a priority on WhatsApp. This discussion has also been validated by Abubakr et al.'s (2019) study, which concludes that CS from Kurdish to English marks different aspects of identities than those associated with monolingualism.

Concurrently, the specific conversational practices we select form the way we identify ourselves and our interlocutors as well. Therefore, identity is not a fixed notion (Bucholtz & Hall, 2005, previously mentioned in section 2.5.2) but it is actively, continually and dynamically produced and reproduced by means of and in language (Georgakopoulou, 1997; Benwell & Stokoe, 2006).

In line with this, online identity, also called virtual identity, digital identity, cyber identity or e-identity, is "the representation of one's persona in a digital context" (Russell &

Stutzman, 2007). For Markham (2005: 249), “the first step toward [online] existence is the production of discourse, whether in the form of words, graphic images, or sounds”. Likewise, Benwell and Stokoe (2006: 278) have defined it as “identity work performed and enacted online”; “a unique product of the linguistic qualities and technological properties of CMC”. Similarly, Androutsopoulos (2007a: 282-3) considers identities on the Web as “processes in which individual relationships to larger social constructs are constructed and negotiated through text and talk” and other multimodal affordances like images and audio voice-notes.

Since the beginning of the spread of internet usage, the conflict between online and offline identities has represented a challenge among researchers (e.g., Turkle 1995). Online identities, due to the lack of any physical traits, have been viewed as vague, especially because of category deception (e.g., gender), imitation and identity camouflage (cf. Donath, 1998; Hardaker, 2013). Thinking that we are changed into different people in either the offline or the online contexts, Caldas-Coulthard (2007: 280) and Yus (2011: 39–40) suggest that our online personas are one extra series of personas that we have to convey within the different contexts in our daily lives. Many variables dictate that like the situation we encounter, our stimuli, our age, our mood and the interlocutors we interact with, we decide, based on all or some of these variables, to adopt the salient characteristics of our multiple and vibrant identity (Thurlow et al., 2004: 97; Ellison et al. 2006: 418).

Interestingly, Barton and Lee (2013: 7) consider online and offline identities the same, yet it is the situational context in which communication takes place. This statement corresponds with the current study because the participants consider online social media platforms as an additional space where they act mostly like their offline selves. This is because they respect their social backgrounds due to the conservative nature of the Saudi community, whose members still have their restrictions, even in that free space. Their notion is considered true when it comes to the social practices that link online and offline activities. As Wertheim (1999,

cited in Robinson 2007: 100) explained, our "multiple self-ing online does not entirely differ from the chameleon like behaviour" that we display offline and therefore cannot be separated.

In the current study, there is evidence that the participants' online personas were more open, expressive, and bolder but not entirely different from their offline personas, as reported in their interviews. However, this is not attributed to the anonymity of Twitter because all the participants' accounts were identified, not anonymous. Furthermore, this difference is due to the space that online communication allows its users in terms of having their time to rethink their replies, which makes some of them "sound wiser" (Maya). Also, another online trait assisting with conveying different identity aspects is the multimodal affordances, which represent a rich resource that the participants can use to enhance their interactions. They can use vivid gestures as substitutes for their face-to-face body language and showing other aspects they miss in offline interactions like a "sense of humour" (Rana).

Thurlow et al. (2004: 105) argue that it is more suitable to talk about identity online rather than online identity as the latter implies that there is somehow a different identity for each of us when we are online. To illustrate this, the aspects of identities that we present online and those we present offline are two sides of the same coin and they pass through the same constant progression, that of "*identification"* (ibid.). Thus, it is crucial to learn and grow our skills of combining, rather than separating, our communicative behaviours in these two domains (Zhao et al., 2008: 1831). In other words, the inquiries about who someone is offline (in terms of gender, age etc.) or whether their identity is relatively easy to ascertain or socially common online are less vital than investigating who, how (for example, with which resources), and why this identity is qualified to either the self or others within the various social channels in CMC spheres (Widdicombe, 1998: 198; Georgakopoulou, 2011: 550; Zhao et al., 2008: 1832). Gee stated:

> [A]s discourse analysts, we do not care whether there is a really core self or exactly what it is. We care about how people express their sense of who they are and their multiple other identities through language (2011: 106-107).

Scholars have argued that there are two types of identity when using social media. The first one is the absolute identity and the second one is the contextual identity. Contextual identity refers to the different roles human beings play in life. Thus, this study shows evidence that participants use CS to adhere to the norms of both types of identity. When they are members of an online community, speakers endeavour to use language and certain words that confirm their belonging to a group. Hence, it can be argued that CS is a means to show belonging to an online bilingual or multilingual group and CS to English is a characteristic of being an online member. However, the absolute identity is what the participants are keen to maintain and they endeavour to reveal that they still have it and defend it. Therefore, many tweets consist texts from religious preaching in Arabic as well as Arabic poetry because the participants want to show that they have not lost their absolute identity even though they have become members of online communities. Based on that, it can be argued that CS is not limited to switching languages only, it is rather a switch between composition and quotations (from religious sources or poetry), a switch in the type of used language either formal or informal, a switch between moods that controls the language choice, a switch in the tone without actual voices but only written codes for tone implications such as seriousness or fun.

5.9 Conclusion

In conclusion, this chapter has discussed data based on a model that merges different models and approaches to analyse data on bilinguals' CS. Most of the frameworks are mono-lingual biased, thus one of this study's strengths is that it points to the fact that standard sociolinguistic approaches are not adequate to cover data like those found in the current study. This is because it shows the differences between offline and online interaction, especially given

the rapid changes of e-communication and the changes language is witnessing. There is nothing in the literature about this particular group in this technological context which allow for the evaluation of available models, their narrowness and lack of adequacy. This represents a significant contribution of this study. The major focus is the sociolinguistic approach and how it sheds light on the analysis of CS and TL. The data analysis model is based on Herring's CMDA framework (2004, 2007) to examine the social and technological factors of online platforms, on Al-Wer's (2013) approach of grounding the data to investigate the code-switched data, TL (Wei, 2018) to expand the view of CS and complete the missing components of this type of data, and on TA (Clarke & Braun, 2006) to identify the meanings from the data. This use of these mixed methods was adopted based on the complexity of the subject matter at hand.

The analysis, among other things, shows that the participants employ online platforms for the purpose of communication, facilitated by two factors. The first is the advantage of online affordances that act as a substitute for body language in offline interactions, and the second is the asynchronous nature of online communication, which supports readiness for communicating in a specific culture.

Socially wise, the specific conversational practices we select shape how we identify ourselves to our interlocutors which demonstrates that identity is not a fixed notion and that it is likely to change, especially when individuals are using online platforms, some of which provide leeway for anonymity or change of some personas' characteristics. CS is also found in multimodality, which represents an online interaction privilege from linguistic to non-linguistic practices and CS from English to Arabic or vice versa for the purpose of empowering their communication.

Relatedly, this study argues that for the participants, CS is more than a linguistic choice; it is rather a moment of making, taking a stance through 'footing', mirroring attitudes and making options and decisions 'positionality' which is why this project appreciates the work of

Goffman (1974). This is because the participants act differently online according to the context, mood or topic from offline interaction, while in DMC more stances can be taken due to its multimodality and asynchrony. These enable the participants to reconstruct their online personas, to reveal or fake social characteristics that are missing in offline interactions, such as humour and wisdom.

Furthermore, this study indicates–with respect to non-generalisation–that the Saudi participants behave similarly to their offline communication because as they stated, they respect their social backgrounds and never try to use their Twitter accounts as masks to release their anger or aggression.

In this study, Saudi Arabic has been highlighted as many varieties not as one language. Standard vs non-standard varieties are used by the participants as many purposeful tools to achieve communicative goals. This study has shed light on the written Saudi Arabic which allowed this variety to be distinguished and recognized in a different way than face to face interaction.

Another point debated relates to the affections associated with each language. On the one hand, switching to English is considered by some participants as unnecessary and a way of show-off and yet still they are found CS. On the other hand, Arabic is viewed as a beautiful language and using it is a source of pride which may be due to their desire to show their feelings of belonging and their Arabic identity, even if the English competence of the interlocutors is good. The common perception of Saudis' CS as a way of showing off could be the motivation behind this view, which affects the credibility of this perception.

The next chapter offers a conclusion on the issues raised, discusses the implications and suggests areas for further study.

The Social Aspects of Code-Switching in Online Interactions: The Case of Saudi Bilinguals

Chapter Six: Conclusion

6.1 Introduction

This chapter provides a conclusion on the study on Arabic-English CS behaviours among Saudi bilinguals. The chapter is arranged as follows. Firstly, there is a section on the study's focus. This is followed by a section that summarises the study's main findings. Thereafter, there is a section outlining the implications of those findings. After that, the study's limitations are considered. Finally, based on the empirical findings of the study and their relation to earlier research, areas for future academic study are suggested.

6.2 Research Focus

This exploratory study was conducted to investigate how Saudi bilinguals function on a daily basis in online interaction and employ their online linguistic and non-linguistic repertoires to achieve social communicative goals. It is about the interactional linguistic and social empowerment of online interaction to its users involving intellectual; cognitive, cultural and psychological understanding to explore how social media or online interaction is having an impact on its users and the way they interact with others in terms of achieving some interactive purposes such as expression and self-presentation.

This study has investigated the Arabic-English CS behaviour of eight Arabic-speaking Saudi bilingual participants living in Saudi Arabia. The data are based on 194 WhatsApp chats and 122 tweets that were collected by the researcher. The data were analysed and interpreted

according to three aspects: conversational turn-taking and CS; the linguistic description of the data; and code-switching and identity.

This study contributes to the DMC literature and bridges some of the existing gaps. For example, much research has been conducted on offline CS, mostly on patterns and purposes in many contexts, yet much less has investigated online CS from a sociolinguistic perspective especially on that specific group of Saudi Arabia. Also, the study analyses the linguistic features of CS by Saudi bilinguals and determines the relationship between these features and the contexts in which they appear. The study also surveys the changes in CS according to the setting, situation and gender of the interlocutor(s).

Furthermore, this study examines the social aspects (virtual identity) that can be revealed by the Saudi bilinguals in their online communication. Through this virtual identity, they can do things they cannot do in real-life situations, such as using swear words in English, which they prefer not to do in Arabic due to their social values. There is evidence that these bilinguals' virtual sociolinguistic behaviours support the notion that identity is not fixed but negotiated. This study supports Thurlow et al.'s (2004) concept that the aspects of identities we present online and offline are two sides of the same coin and the same constant progression, that of "*identification".*

Therefore, it can be argued that CS is more than that theoretically defined at the beginning of this project as "the alternative use of two languages either within a sentence or between sentences" (Clyne, 1987: 40, see section 1.1). However, this study has proven that this definition is not telling the whole story, it is rather a juxtaposition between languages, cultures and spaces that facilitates communication and expression. In addition, it is mirroring attitudes either in manipulating the linguistic choices or the non-linguistic resources purposefully not to fill lexical gaps but rather, to achieve communicative goals. One of the most significant theoretical implications in this study is to take that restricted segment of the Saudis so called

'conservative context' to the body of knowledge to investigate the development and empowerment of the means of communication which allowed to revisit the theory of CS.

In this study, online CS, which includes all linguistic and non-linguistic resources, is like owning several options for the delivery of your message. It is similar to Bourdieu's (1977b, 1991 mentioned in section 2.6) two key concepts: habitus, and symbolic capitals. Habitus refers to an individual's own personality and motivations to behave in a specific way. This capital is formed by the person's childhood knowledge and controls one's attitudes and perceptions. It reveals the person's deeply rooted social background. On the other hand, symbolic capital refers to one's linguistic proficiency. These capitals represent a rich source of affordances when practised via DMC that assist interlocutors to either show unrevealed characteristics of their personas like humour and wisdom, or to communicate better due to the online interaction asynchrony and space. These virtual spaces are considered a third space between the interlocutors' offline realities and their capitals, where they can deploy many means for self-presentation and communication.

6.3 Summary of Main Findings

With regards to the first question, literature has focused on linguistic practices, while this study has highlighted the non-linguistic resources afforded by online communication and how those are familiarized and read by our brains as a part of the written message and present the emotional communication to integrate the users' sociality. To expand, there are several significant findings in the current study related to the emotional non-linguistic communication. First, multimodality plays a fundamental role in the participants' online interaction – all the participants use them to varying degrees. In addition, it is noted that the participants' most frequent CS online practice is the interchanging between linguistic and non-linguistic

resources, employing both codes: Arabic and English most frequently accompanied with the multimodal affordances such as emojis and stickers.

This result may be due to many facts; a) multimodal affordances fill the gap caused by the limited view of body language online; b) using these affordances is easier for the users than composing text-based posts which for most participants may cause misunderstandings from the recipients' side; c) some multimodal affordances constantly are updating according to the trends every while where it is noted that most posts consist of stickers (more recent) instead of emojis (older) to show that the users are updated and keen on following the norms of the online interaction; d) the multimodal affordances tend to be basic in online interaction as it is one of the most highly used properties which makes the online interaction unique in comparison to the offline interaction. In addition, these multimodal affordances support the users to re-explore some of their personas' characteristics like revising their replies before sending them, listening to their voice-notes to work on some weaknesses and being more diplomatic in ending conversations. Moreover, the multimodal affordances are employed by the users to reveal other characteristics they lack in the offline interaction like sense of humour and wisdom.

With regards to the second research question, which is 'How do the participants employ online interaction to fulfil their social purposes?' the study findings identified several practices and their uses. Firstly, the most-used practice among the participants is Arabicization. The participants' bilingual abilities enable them to manipulate the English words to fit their daily linguistic needs. Moreover, this linguistic competence seems to distinguish specific generations or communities of practice which makes these Arabized words common and considered as a sign of social symbolism. To illustrate, each generation is recognised by some new Arabized words which makes these words as symbols that are common and familiar among specific generations and speech communities.

Secondly, a unique practice in this study is prayers which reflects the status of Qur'an, Classical Arabic and the Islamic teachings on some participants' posts. Thus, this finding argues that the effect of Qur'an and Islamic teachings is not only a religious practice in the participants' offline lives, but rather a deeply rooted practice that is revealed explicitly in all their daily practices including their online interaction to reflect their situations and their moods.

Next, with regard to the motivations of CS, the study argues that showing off is a unique perception since it was the most reported finding amongst the participants and not previously documented in the literature which implies that English has a prestigious status in the Saudi society. It is noteworthy to mention that most participants indicated that their view towards some code-switchers is showing off but this may be the case for themselves as well yet they cannot admit it because it is a self-reported data. Moreover, they added that some CS is not necessary because Arabic alternatives are available while they themselves code-switch in many unneeded cases found in their posts which means that some participants contradict themselves.

Fourth, another motivation is the language development which was not found in literature. Therefore, this finding argues that online interaction assists some participants to develop their second language use and encourages them to CS more even if they are incompetent in English because it enables them for example to avoid typo errors and use more advanced vocabulary. It is crucial to mention that online interaction may also assist its users to copy other peers' linguistic activities in order to follow the norm of the online interaction and maybe also has the effect of enhancing/developing their own CS skills.

Fifth, with regard to the emotions associated with the language, it is argued that most participants prefer switching to English for swear words because they believe that switching the code makes the impact less aggressive and negative for the recipients. This challenges the notions found in literature about participants' preference towards their first language for swearing and negative feedback. This may be due to the fact that the Saudi society has a unique

sociocultural nature at least among specific social classes that consider swearing in Arabic inappropriate and serious. Interestingly, this becomes a norm among most of the participants because it was reported by most participants even though it is not one of the interview questions.

Finally, one of the remarkable arguments in this study is the caution among the participants when interacting with the other gender either linguistically (formal language) or non-linguistic (multimodality). This caution may be due to the common sociocultural segregation between the two genders and the limited informal contexts that combine both genders in the Saudi society—the context of this study's sample— especially that they all justified that the reason behind that caution is to avoid misunderstanding such as flirtation or disrespect which can be created by such attitudes.

At the conversational turn taking level, the analysis of CS has revealed that it is used to accomplish negotiation and develop meaning in the conversation. In every conversational turn, CS is used as a response to the preceding turn, and so on until the meaning is completed. In these turn-takings, interlocutors make decisions in taking stances by the practices they choose for response, the codes they select to indulge in an interaction and the means they employ for self-presentation. Moreover, by using turn-taking, the speakers communicate their engagement with other speakers and their endeavour to converse and amplify or diminish the strength of their beliefs and attitudes.

At the level of the linguistic practices of the CS data, it has been shown that the majority of the code-switched words are content morphemes. The study also provides solid evidence that language mixing occurs in CS. Moreover, some English words occur with Arabic prefixes or suffixes; Arabization. The CS data were interpreted from a functional and a pragmatic point of view rather than a syntactic perspective. It is found that the occurrence of CS is best interpreted in terms of power relations, to raise status, the type of vocabulary used, and to

exclude someone. The medium for achieving these purposes is choosing a specific content morpheme to code-switch. Based on the functional approach, it is argued that certain English words are inserted into an Arabic conversation to fill a lexical gap, and to reflect the speaker's English competence in the sense that the speakers are frequently exposed to these words in their work or educational settings. This accessibility tends to enhance the speakers' competence because English is widely used in Saudi Arabia, such as when shopping, on the internet and on social media, so the bilingual participants excel at using these words and English is the only code they can switch to.

The third level of data interpretation is CS and its relationship with identity. Scholars have argued that there are two types of identity when using social media. The first one is the absolute identity, and the second one is the contextual identity. Contextual identity refers to the different roles human beings play in life. Thus, this study shows evidence that participants use CS to adhere to the norms of both types of identity. When they are members of an online community, speakers endeavour to use language and certain words that confirm their belonging to a group. CS is a means to show belonging to an online group. However, the absolute identity is what the participants are keen to maintain and they endeavour to reveal that they still have it and defend it. Hence, many tweets contain texts from religious preaching in Arabic as well as Arabic poetry because the participants want to show that they have not lost their absolute identity even though their bilingualism and their membership of an online community. Based on that, it can be argued that CS is not limited to switching languages only, it is rather a switch between composition and quotations (from religious sources or poetry), a switch in the type of used language either formal or informal, a switch between moods that controls the language choice, a switch in the tone without actual voices but only written codes for tone implications such as seriousness or fun.

Furthermore, it can be argued that bilingualism is not only having two languages but also having a hybrid capital that the interlocutors need to express (Baker, 2014). The virtual identity is manifested in using another language and attempting to integrate its words into the interlocutors' language repertoire. It is a source of pride to show that someone can speak another language and use it in communication in the Saudi society (Moskovsky & Picard, 2018), and the bilingual participants have embodied this fact. The Saudi bilinguals want to demonstrate that they are part of the cyber generation and the cyber civilisation and that they can use technology in their daily lives. Technology has penetrated the fibre of human society and using it is indispensable (Chromey, 2020). Using DMC has enabled its users to create written practices for communication such as CS between linguistic and non-linguistic resources and also to show a virtual identity. Nonetheless, the Saudi bilinguals are also keen to show that they still maintain their Saudi identity and endeavour to express its characteristics which means that CS is in itself a power that enables its users to find solutions for their neglected identity aspects and also a conciliatory move with several tensions at its core.

It is worth noting that this study's data shows that in a given context/situation, incidences of CS serve particular/specific or localised discourse functions, even though "the linguistic expression of these functions is mediated by the overarching hybrid nature of this type of CMD" (Tsiplakou, 2009: 378). Furthermore, the informal nature of the modes of communication (Twitter and WhatsApp) appears to contribute significantly to such form of linguistic hybridity. More importantly, the inherent hybridity of the discourse and of DMC communication is informed by a number of intra-sentential switching (Tsipklaou, 2009).

As a way of summarising, while the qualitative results of the data presented in Chapter 5 and also summarised above cannot be used to generalise with certainty issues in Saudi bilinguals' use of CS in DMC, the study has consistently demonstrated that findings are consistent with previous few related studies on CS done with emphasis to various language

pairs, more particularly in the context of identified socio-pragmatic and stylistic functions portrayed by CS which closely mirror those primarily noticed in oral communications. In consideration of the study's participant's profile, this offsets on the enduring critiques of CS which posits that lack of proficiency in one of the both languages is one of the chief causes of CS.

These reasons are compelling for the researcher to agree with Montes-Alcala's (2016) response to the question as to why bilinguals switch between languages in DMC to say "Because they can", hence giving themselves online freedom of expression and consequently showing that CS is a deliberate choice. In summary, this study's findings suggest that while the participants "draw upon their linguistic resources in order to maximise the effectiveness and functionality of their communication" (Georgakopoulou, 1997: 160), they also seem to collectively construct and practice these "hybrid" linguistic norms (Tsiplakou, 2009). This creates a hybrid style which, despite drawing on some of the norms of written and spoken discourse, is full of CS, language play and intertextual references.

Moreover, the study's findings demonstrated that the online setting plays a significant role in influencing language choice and subsequent language use, as can be evidenced by the data. Consequently, it is within the precepts of logic to assume that the seemingly novel context precipitates and arranges for change in general but also with specific regard to the form and structure of a text while simultaneously facilitating some "new" functions which are medium-specific to appear.

In summary, this study argues that CS is now getting more acceptable and regularised in many DMC situations and modes whereas it is considered as valid and legitimate communication strategy/technique consequently and gradually, becoming a norm. Furthermore, CS is a communicative strategy that enables its users to decrease sociocultural

barriers and accomplish metalinguistic functions because users involve linguistic, cognitive, physiological and sociocultural approaches in the CS practice.

6.4 Research Contributions

This study contributes to the DMC literature and bridges some of the existing gaps. The study describes the linguistic features of CS by Saudi bilinguals and has determined the relationship between these features and the contexts in which they appear. The study also surveys the changes of CS according to the setting, situation and the gender of the interlocutor/s.

Firstly, this study builds a body of scholarly knowledge about online CS practices of Saudi bilinguals. As previously stated in the introductory chapter, to the best of the researcher's knowledge, no studies have deliberately investigated Saudi bilinguals' sociolinguistic use of CS, especially in the context of DMC. Because of that, this study not only contributes to a known understudied/researched area of Saudi bilinguals' linguistic practices, but it also represents in-depth assessment of this kind on Saudi bilinguals' sociolinguistic CS in DMC, especially through the use of authentic and naturally occurring DMC interactions.

Secondly, this study's significance lies in the value of naturally occurring DMC for linguistic assessment. Complete sets of data were collected about the research participants, thus allowing in-depth analysis of the possible nexus between language use and language behaviour, thus allowing the researcher to gain an understanding of what the participants actually think about their language choice and production.

Furthermore, there is an evidence to support the theory of "deindividuation" by Wallace (1999: 239) who stated that people may behave un-self-consciously when "they think no one can find out who they really are" because the degree of anonymity influences behaviours and may cause "deindividuation". Based on that, it can be argued that the offline society still has

the power to control people's behaviours even in their online interaction. Everyone has his/her own reasons for not being totally free to share what they feel because they fear misjudgements, misinterpreting and labelling.

In addition, this study highlights the empowerment of users as collaborative creators of internet content as well as the linguistic and non-linguistic choices they make for self-presentation indexing ideologies and other social communicative goals.

As an Arabic speaker, there was the standard vs non-standard dichotomy. However, this study has gone beyond this dichotomy to indicate that each of these Arabics has a function to play for the purpose of completing the big picture of interactive repertoires. The findings showed that participants employ these Arabics not as low varieties but as adapted and purposeful sources for effective and appropriate communication. For example, the participants are found to be Arabizing some English words instead of using the standard alternatives. This is fascinating because the interlocutors find those English words fit more in the interaction than their native language alternatives because they are more common in their communities. They also distinguish some younger generations from the older ones which encourages this linguistic practice to be expanded due to some contexts.

6.5 Implications

This thesis bridges sociolinguistics and social psychology fields of research. The combination of attitude and CS research allows for further insights to be gained into the complex interrelation between attitudes and behaviours. This leads to a better understanding of the role of socio-psychological practices in the production of language. Furthermore, by focusing on the DMC contexts, this thesis also highlights the implications of language use and language attitude in multilingual interactions, which may help to understand future language attitudes and practices in DMC.

Moreover, this study implies that the online affordances or visual cues are interpreted by our brains. Thus, the following implications occur; are speaking practices changing? Visual online affordances are familiarized and treated by the brain as non-verbal information by interlocutors, which means that we "read" them as part of emotional communication. And we can ask yet one more question: Does their use vary across different cultures?

The findings of the study suggest that Saudi bilinguals aged 20–50 employ CS in their writing when using DMC. Internet users have adapted written languages to the needs of the new modes of DMC by producing linguistic and non-linguistic practices in DMC that fall somewhere between the written (at distance) and spoken (face-to-face) modes. This hybridisation of the features of written and spoken language minimises the boundaries that separate speech from writing.

Contrary to some stereotypes, and as can be seen from the behaviour of the study's participants, CS is practised by both men and women. That is largely due to the motivation for CS, which transcends gender boundaries or societal expectations. With a growing number of Saudis learning English and using the internet, CS is likely to permeate into the Saudi social fabric. However, it is unlikely that this will have any effect on the formal and established Arabic language.

This study also proposes that the participants have acquired virtual identities through showing some different aspects than their offline interaction. Through this virtual identity, they can do things they cannot do in real-life situations, such as switching between poetry and song lyrics. These bilinguals control their linguistic choices and modify their online personas according to the context, evidenced by the fact that they write messages purely in Arabic without CS while also writing messages purely in English and sometimes incorporating the two languages or just employing multimodality in specific contexts.

6.6 Limitations

It is important to point out the limitations of this study. Several limitations of this thesis need to be taken into consideration. These limitations are connected to the collection methods and the subsequent data analysis. While most of these concerns have been comprehensively addressed in preceding chapters, the primary ones are summarised in this section.

One of these, was the small number of participants. Due to the qualitative nature of this thesis and the massive amount of data that DMC produces, only 7–10 participants were planned for, in order to have control over the collected data, and because the aim of this study is to understand the participants' sociolinguistic attitudes via DMC rather than generalising the findings. Also, the sample size was selected through the researcher's personal contacts. In addition, the sample shares very similar sociocultural and educational backgrounds that cannot be considered representative of the Saudi community. Hence, the study cannot be assumed to be generalizable to other populations outside the group of the participants. It is thus important to realise that the researcher's goal was not to make inferences and delve into generalisations concerning the population at large. In view of that, it is advised that the study should be seen as an exploratory investigation for identifying possible issues, themes and trends for further academic research and implications. It should also be highlighted that all the participants indicated in the interviews that they consider Twitter to be an argumentative platform, a view that might affect their spontaneity and prevent them from acting normally as other tweeters do. All the same, the reasons raised above do not in any way invalidate the findings and subsequent analysis, since the participants ably offered personal reflections and talked about other issues which significantly contribute to our understanding of the complex concepts at play.

Furthermore, there was an age limit of 20 – 50 years old for the participants, which was set so that they would represent three generations with different social, digital and educational transformations in Saudi society. This was valuable as these affect their technology

use, linguistic attitudes, English proficiency and the way they influence and are influenced by language.

Moreover, with regard to data collection tools, it should be acknowledged that while questionnaires and interview surveys are robust and effective tools to use when collecting data, the kind of insights they generate are limited by several factors, most importantly time restrictions and the respondents' willingness to invest time in completing the instrument (Dornyei, 2003). Further to that, it is important to consider the fact that the data collected using such tools are based on self-reports, and by implication, some participants might not provide honest responses or they may just situate responses in order to give the researcher what s/he needs. Without taking away that well-known reality, this study's defence is that it was based on a situation where the participants had nothing to gain by providing inaccurate data. More importantly, the self-reported data, being based on the participants' own reflection of their language use or behaviour, provided interesting views, especially when compared to naturally occurring language. All the same, as argued by Codo (2008:18) "it must be pointed out that, although useful in its own terms, declarative data can never be employed as a substitute for data on speakers' actual linguistic behaviour". That said, for the purposes of this study, the insights acquired through the tools were rather used to obtain and later enhance a picture of language use, especially in relation to CS, which was the topic under investigation, including other relevant contextual pieces of information.

One of the fundamental limitations of this study is that voice-notes were disregarded. It would be very fruitful if they were included because they represent oral interaction which may enrich the data with the participants' spoken practices. This limitation is due to the fact that the researcher did not foresee their importance and their weight to the current study before starting the data analysis.

It must be noted that by using a mixed methodology research design, the researcher managed to effectively neutralise potential biases and possible prejudices. Further to that, every possible attempt was made to minimise/mitigate the possibility of any foreseen or unforeseen circumstances that could have affected the quality of data in a systematic way (Dornyei, 2003), to the extent that the researcher has a high degree of confidence that this study's contributions to scholarly knowledge outweigh its limitations in a significant way.

6.7 Future Research Possibilities

Further research on DMC in Saudi Arabia needs to explore the issue of the personas resulting from being bilingual, which have been revealed in the participants' CS practices. There is a need to investigate whether these personas remain separate or whether they can conflict with each other, as well as the role that cultural and social norms play in determining the features of the unfixed identities. The role of age in shaping the features of these personas should also be examined because the older generation is expected to preserve the traditional cultural identity to a greater extent than the younger generation (Luppicini, 2012; Zaphiris & Siang Ang, 2009). The role of gender should also be studied when dealing with the personas, for example whether preserving them – or favouring one over the other – depends on the gender of the interlocutors.

Furthermore, it is crucial to study the use of CS in DMC across different Arabic-speaking countries because each Arab-speaking country has its own CS lexicons and common terms. Also, future research should shed light on different social media platforms such as Twitter, Facebook, WhatsApp, and Snapchat, because each platform has its special properties that may influence how the same person acts and communicates in each of these platforms. Similar future research studies should consider follow-up oral interviews with samples of

Twitter users (twitters and hashtagers in this case) to probe, among others, their perceptions about the functions and use of CS. This would be helpful in further confirming the findings.

In future research, there should be investigations of different social variables, and language competence must be considered during such studies in order to draw a clear conclusion on why overlapping occurs and in which contexts it occurs most frequently. For example, studying abroad may be a crucial variable affecting sociolinguistic attitudes. Thus, if I had to do this thesis again after knowing what I know now, several elements can be reconsidered; first, to have more participants from different socioeconomic and sociocultural backgrounds for more diversified insights and wide-ranging interactive styles. Second, to expand the online questionnaire or the interview questions to include more variables that might affect the participants' ways of interaction such as studying abroad as many Saudis are sponsored by the government to study out of the KSA which have different cultural and linguistic impacts on them and may therefore influence their English competence and communicative practices.

It is on record that there is a research gap on cross-media, private data and cross-mode comparisons of CS, as well studies of bilinguals' use of CS in DMC (Androutsopoulos, 2013). Consequently, and in view of the exploratory nature of this study, there is a need for further investigation that would require a larger database. Specifically, such an investigation would focus and seek to provide in-depth analysis on the language choice, retweets, likes as speech acts, behaviours and CS practices on Twitter as they were not integrated in this study, but as the interlocutors' reactions and attitudes towards posts, they may enrich the research with more online users' approaches for positioning (Goffman, 1969).

Finally, further investigation is needed to include voice-notes on WhatsApp, to detect whether CS occurs orally as well as in written texts, so as to allow a comparative analysis between these modes of communication, as their content was not considered in this study.

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Appendix

1. Interview Questions

The Social Aspects of Code-switching in Online Interaction: The Case of Saudi Bilinguals

The following are only guiding questions, other sub-questions were formulated during the interviews based on participants' data, and their responses were reported and discussed in the findings and discussion chapters:

1/ What language do you prefer to use with peers and friends in your online interaction? Why?

2/ If you are using Arabic in online conversation, do you switch to English and vice versa? If yes, when? Does this provide an additional opportunity or space? Give examples.

3/ What does the use of both languages online allow people to do they can't do otherwise? In what ways is it different than face-to-face conversation?

4/ Is there anything special about Saudis using both languages online? Explain.

5/ What affordances in both platforms do you usually use? Why?

6/ How is Twitter different than WhatsApp? In what way? Does this make you use them differently?

7/ What if your Twitter account is under a nickname?

8/ Do you interact similarly with men and women? If yes, in what way & why?

- The last two questions were added into the main study interviews.

2. Research Data Management

Data was managed and stored in accordance with the Guidance on Data Storage and Protection as follows; data was stored in my personal computer and locked with a password and password protected hard-drives that belong to the researcher only. In addition, data and scripts (hard copies) were stored in secured filing cabinets. The data was stored at the University file store which has the advantage of backing up the data regularly. Files were structured and named by using logical broad names and individual files for each participant. The folders were structured hierarchically, i.e., design folders with broad topics then use sub-folders within theses. The main folders of the study were called “interview data” (which included the recordings and transcripts of the participants’ interviews) and included several subfolders labelled with numbers referring to participants’ pseudonymized names (which included the audio-recordings and posts for each participant), “questionnaires’ data” (Which included sub-folders for each participant). Questionnaires, interview transcripts and WhatsApp chats and Twitter posts were kept anonymously for conference usage and publications. The audio-recordings will be destroyed after this project is completed. Data will be kept for a period of 10 years after the end of the project. Data is transferred to the University Research Data York service and the dataset is recorded in a Google drive in a password protected folder on the computer. The data will be archived once they are anonymised in the University Research Data York service after the PhD is over.

3. Anonymous Online Surveys

Key word
EB = Educational Background / H= High School BA= Bachelor Degree PG= Post Graduate
EP = English Proficiency/ B= Beginner I= Intermediate A= Advanced
CS = Code-switching/ ST= Sometimes
OP = Online preference/ A= Arabic E= English

No.	Gender	Age	EB	EP	CS	OP
1	M	-	H	I	ST	A
2	F	32	H	I	ST	A
3	F	43	PG	A	Yes	A
4	F	-	BA	I	ST	A
5	M	45	PG	A	ST	E
6	F	40	BA	I	ST	A
7	F	30	PG	A	Yes	E
8	M	40	PG	A	Yes	E
9	M	34	BA	A	Yes	E
10	M	35	BA	I	Yes	A
11	M	40	BA	I	Yes	A
12	F	36	BA	B	Yes	A
13	F	38	H	A	Yes	A
14	M	33	PG	A	Yes	E
15	F	30	BA	I	ST	E
16	F	37	BA	A	Yes	E
17	M	40	BA	A	ST	A
18	M	37	BA	B	No	A
19	F	39	BA	B	No	A
20	F	-	BA	I	Yes	A
21	F	39	PG	A	ST	E
22	F	-	PG	A	ST	E
23	M	40	BA	I	ST	A
24	F	38	BA	A	ST	Both/ recipient
25	M	54	H	I	ST	A
26	M	-	BA	I	ST	E
27	F	38	PG	A	ST	A
28	F	32	PG	A	Yes	E
29	M	25	BA	I	Yes	E
30	M	29	PG	A	No	E
31	F	57	BA	I	Yes	A
32	F	-	BA	A	-	A
33	F	23	PG	A	ST	A
34	F	38	PG	A	ST	E
35	F	-	PG	I	ST	A
36	F	28	PG	A	Yes	A
37	F	-	PG	I	ST	A
38	M	29	PG	A	ST	E

39	F	33	PG	A	Yes	A
40	M	35	PG	A	No	A
41	M	-	PG	I	ST	Arabizi
42	F	-	BA	I	ST	A
43	M	34	PG	A	Yes	A
44	F	35	PG	A	Yes	A
45	F	47	PG	I	ST	E
46	F	33	PG	A	Yes	A
47	M	28	PG	A	ST	E
48	M	21	BA	A	ST	A
49	F	33	PG	A	ST	Both
50	F	31	BA	A	Yes	E
51	F	42	PG	I	ST	A

Gender

M	F
20	31

Age-groups

20-30	**30-40**	**40-50**	**Above 50**	**Unknown**
7	23	9	2	10

Educational Background

High school	**Bachelor**	**Postgraduate**
4	21	26

English Proficiency

Beginner	**Intermediate**	**Advanced**
3	19	29

Code-switching

Yes	**No**	**ST**
20	4	26

Online Preference

A	**E**	**Both**	**Arabizi**
30	18	2	1

Relationships between variables

People who reported they hold post graduate degrees and use English = 12

People who reported they hold Bachelor degree and use English = 6

People who reported their English proficiency is advanced and confirm code-switching = 14

People who reported their English proficiency is advanced and sometimes code-switch= 12

People who reported their English proficiency is intermediate and sometimes code-switch= 14

People who reported their English proficiency is beginner and do not code-switch= 2

People who reported their English proficiency is beginner and code-switch but prefers uses Arabic = 1

Males who reported they do not code-switch= 3
2 of them hold post graduate degrees and their English proficiency is advanced but prefers Arabic.

1 holds Bachelor degree and his English proficiency is beginner.

4. Mini corpus of English words and expressions found in the participants' data

A	B	C	D	E
Afternoon tea Action Account Already Anniversary Anytime asshole	Bravo (Italian) Below average Boarding pass Bitch Bla bla bla Bossy Bye	Cancel Class (classy) Coat Coffee Condition = air-Condition Control Cover Credit Criteria Cute Cinema	Department-store Down (not working)	Email Emojis Event Even though
F	**G**	**H**	**I**	**L**
Fashion Film / movie Filters	Glass Gluten-free	Hotel HR (human resources)	Inquiry	Lifestyle Location
M	**N**	**O**	**P**	**R**
Mall Make-up Meeting Menu	Nick name Naïve Notes	OMG Online/offline Organizer Outdoor	Parking Party Password Perfect pink Please Pop-corn Proud Presentation Private process	Results
S	**T**	**U**	**V**	**W**
Sandwich Scarf Screen Seat Security Sheet Shit Shower Silly Simple Sleepover Slutty Social media Sorry Spa Special Still Story (snapchat) Stupid Style	Taxi Thanks Text Teenagers Tube Tyres	U-turn Undercover	Video-call	Weekend

System				
Expressions	**Idioms**			
New money Friend zone See you My bad After life Ups and downs Nature calling I miss you No offence Strong-independent Drama queen Stereotype Long-time no see It depends No worries Okay doky Sense of humour	Great minds think alike Knock on wood It's never late Easy come easy go			

5. Consent Form

The Social Aspects of Code-Switching in Online Interaction: The Case of Saudi Bilinguals

Dear Participant:

I the researcher Shirin AlAbdulqader am currently carrying out this study which is implemented to investigate how Saudi bilinguals use social media platforms (WhatsApp and Twitter).
The data will be stored in a password protected file and will only be accessible to the researchers involved in the project Shirin AlAbdulqader and Dr. Fatma Said. The anonymous data may be used in presentations, online, in research reports, in project summaries or similar. In addition, the anonymous data may be used for further analysis. Your individual data will not be identifiable but if you do not want the data to be used in this way, please do not complete the questionnaire.
If you do agree to complete the questionnaire you are free to leave any questions unanswered or to stop completing the questionnaire altogether at any point. Once the questionnaire is submitted the data cannot be withdrawn. The anonymous data will be kept for approximately 10 years after which point it will be destroyed.
This research has been approved by the Dept of Education, University of York Ethics Committee. If you have any questions or complaints about this research please contact (Shirin AlAbdulqader at sa1563@york.ac.uk, Dr. Fatma Said at fatma.said@york.ac.uk) or Chair of the Ethics Committee (education-research-administrator@york.ac.uk).
By submitting this questionnaire you are agreeing to all of the points above, if you agree kindly click the button below to submit.
Many thanks for your help with this research,

Yours sincerely,

Shirin AlAbdulqader

Before agreeing to take part, please read this information sheet carefully and let me know if anything is unclear or you would like further information.
For information about General Data Protection Regulation (GDPR) please follow the link https://www.york.ac.uk/education/research/gdpr_information/

Purpose of the study
This study is implemented to investigate how Saudi bilinguals use social media platforms (WhatsApp and Twitter).

What would this mean for you

Taking part in this research project will not affect your routine. The researcher will ask you to complete a questionnaire (online version). The researcher will also ask to capture some posts from your WhatsApp and Twitter accounts. Finally, the researcher will ask you to participate in an interview. Your participation will assist the researcher to better understand and document how Saudi bilinguals use social media. Then, you will be given the opportunity to comment on the researcher's written record of your participation in the interview.

Participation is voluntary

Participation is optional. If you do decide to take part, you will be given a copy of this information sheet for your records and will be asked to complete a consent form. You will be able to withdraw (by emailing me at sa1563@york.ac.uk) your participation without having to provide a reason. You will have up to two weeks (from the time you'll be offered the chance to comment on the written records) by which you can withdraw the data after that it will be anonymized and non-retrievable.

Processing of your data

Under the General Data Protection Regulation (GDPR), the University has identified a legal basis for processing personal data (and where appropriate, an additional condition for processing special category data); in line with our charter which states that we advance learning and knowledge by teaching and research, the University processes personal data for research purposes under Article 6 (1)(e) of the GDPR:

Processing is necessary for the performance of a task carried out in the public interest

Special category data is processed under Article 9 (2) (j):

Processing is necessary for archiving purposes in the public interest, or scientific and historical research purposes or statistical purposes

The research will only be undertaken where ethical approval has been obtained, where there is a clear public interest and where appropriate safeguards have been put in place to protect data. In line with ethical expectations and in order to comply with the common law duty of confidentiality, we will seek your consent to participate where appropriate. This consent will not, however, be our legal basis for processing your data under the GDPR.

Anonymity and confidentiality

The data you provide (questionnaires, samples of WhatsApp and Twitter posts and the interview data) will be stored by code number. Any information that identifies you will be stored separately from the data. Your identities will be kept anonymous and names will be pseudonymised. Also, all information will be stored carefully in the researcher's personal computer and no one will have access under any circumstances. Anonymized data (within two months after the completion of collecting data) will be kept for the period of this research for 10 years after which time it will be destroyed.

Storing and using your data

We will put in place appropriate technical and organizational measures to protect your personal data and/or special category data. Data will be stored in secure filing cabinets and on a password-protected computer.

Anonymized data will be kept for a minimum ten years after which time it will be destroyed.

The data that I collect (questionnaires/posts from WhatsApp and twitter accounts/ interviews' transcripts) will be used in an *anonymous* format in different ways. Please indicate on the

consent form attached with an ☑ if you are happy with this anonymized data to be used in the ways listed.

Sharing of data
Data will be accessible to myself and my supervisor Dr. Fatma Said at the University of York only.
Anonymized data may be used for future analysis and shared for research or training purposes. If you do not want your data to be included in any information shared as a result of this research, please do not sign the consent form.

Transfer of data internationally
Data will be held within the European Economic Area in full compliance with data protection legislation. It is possible that the data is transferred internationally. The University's cloud storage solution is provided by Google, which means that data can be located at any of Google's globally spread data centres. The University has data protection compliant arrangements in place with this provider. For further information see,
https://www.york.ac.uk/it-services/google/policy/privacy/

Your rights
Under the GDPR, you have a general right of access to your data, a right to rectification, erasure, restriction, objection or portability. You also have a right to withdrawal. Please note, not all rights apply where data is processed purely for research purposes. For information see, https://www.york.ac.uk/records-management/generaldataprotectionregulation/individualrights/

Questions or concerns
If you have any questions about this participant information sheet or concerns about how your data is being processed, please feel free to contact Shirin AlAbdulqader by email (sa1563@york.ac.uk), or the supervisor Dr. Fatma Said by email (fatma.said@york.ac.uk) or the Chair of Ethics Committee via email education-research-administrator@york.ac.uk. If you are still dissatisfied, please contact the University's Data Protection Officer at dataprotection@york.ac.uk

I hope that you will agree to take part. If you are happy to participate, please complete the form enclosed/attached and email it back.
Please keep this information sheet for your own records.

Thank you for taking the time to read this information.

Yours sincerely

Shirin AlAbdulqader

The Social Aspects of Code-Switching in Online Interaction: The case of Bilingual Saudis
Consent Form

Please tick each box if you are happy to take part in this research.

I confirm that I have read and understood the information given to me about the above-named research project and I understand that this will involve me taking part as described above. ☐

I understand that the purpose of the research is to investigate how Saudi bilinguals interact online. ☐

I understand that data will be stored securely on a password-protected computer and only Shirin AlAbdulqader and Dr. Leah Roberts will have access to any identifiable data. ☐

I understand that my identity will be protected by using a pseudonym. ☐

I understand that participation in this study is voluntary. ☐

I understand that my data will not be identifiable and the data may be used in… ☐
Publications that are mainly read by university academics.

In publications that are mainly read by the public. ☐

In presentations that are mainly attended by the public. ☐

I understand that anonymized data will be kept for ten years after which it will be destroyed. ☐

I understand that my anonymized data could be used for future analysis or other purposes [e.g., research and teaching purposes]. ☐

I understand that I can withdraw my data at any point during data collection and up to two weeks of being offered the chance to comment on the written records ☐

Name_____

Signature_____

Date_____

6. Questionnaire Survey

https://york.qualtrics.com/jfe/form/SV_5iJpFI0fTKvKNoN

7. Data collected (demographics of the participants, Twitter posts and WhatsApp chats and interview transcripts)

https://drive.google.com/drive/folders/1mgWsvMb4TpObAwK4_tRYQXh6yM75JuPZ?usp=sharing