International Journal of Innovation, Creativity and Change. www.ijicc.net
Volume 13, Issue 11, 2020

Prototypical Features and Practices of Romanised Arabic in Computer-mediated Communication

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Advancements in computer-mediated communication (CMC) tools have had a great impact on the language used in interactions via these tools. This study explores recurrent features and patterns used by Jordanians on Facebook and WhatsApp in their Romanised Arabic interactions. To this end, a corpus of 200 Facebook posts/comments (collected from 36 randomly-selected informants representing different age groups, gender, and socio-economic backgrounds), transcripts of interactions in three WhatsApp groups, and dyadic WhatsApp text messages was compiled. The analysis was intended to find patterns in the use of language on the two social media platforms and required the occurrence of the same feature in both genres to be regarded as recurrent. The results reveal that there are two innovative recurrent practices related to Romanised Arabic (RA): transliteration of RA characters, and stereotypical code-switching (CS) practices that aim at establishing an online social identity. The findings also show that RA representation has three aspects: orthographic, linguistic and paralinguistic. The study provides insights into understanding how technological tools have changed language use in virtual communications.

Key words: *Romanised Arabic, Computer-mediated communication, Transliteration, Mixed-codes.*

Introduction

CMC principally refers to all types of human communication via electronic devices using technological platforms. It involves synchronous and asynchronous types of communication; where the former demands a prompt reply without a delay, while the latter does not (Kumar, et al. 2017). In such technological text-based applications – social media, mobile media and the constantly-evolving communication tools – it has become legitimate to ask the question,

what is no longer a computer-mediated communication? (Yao & Ling, 2020). Bodomo (2009) asserts that CMC comprises the process of encoding, decoding and transmitting messages by means of symbolic text-based telecommunication networks, promoted by digitally-based technologies. Nowadays, our social and interpersonal communication is enormously shaped by technology to the extent that it has become "problematic to not recognise, or conveniently ignore, the role of new technologies in redefining and reshaping fundamental social and communicative processes" (Yao & Ling, 2020, p. 6).

The excessive use of social media by Jordanian users has led to the emergence of many styles of electronic writing, the most dominant of which is the Romanised style of writing. It has also resulted in an immoderate use of the English language, as it is of symbolic value and of a positive image for Jordanians (Salem and Al-Salem, 2018). Although the contact between Jordanian Arabic and English can be described in normal circumstances as restricted in most of its respects to borrowing and CS, it seems that basically at the lexical level (Salem et al., 2020) CMC tools, particularly Facebook and WhatsApp, have precipitated the outcomes of such a contact. The tremendous impact of English on Jordanian Arabic has gone beyond language interference to include stimulation of the English writing script in the form and characters used, relatively, as a result of the local admiration and the global significance of English as an international language. This study explores aspects of language use on two CMC platforms to examine recurrent code-based practices available online.

Features of CMC

CMC writing is characterised into orthographic (e.g., alphabets and punctuation), linguistic (e.g., informal vocabulary), grammatical (e.g., sentence structure), discourse (e.g., cohesive devices), and paralinguistic and graphic features (e.g., capitalisation) (Hezili, 2014). According to Crystal (2008), CMC resembles speech in that both have loose structures and short constructions. However, it lacks some of speech's crucial features such as spontaneity, and non-lexical features such as prosody and paralanguage features. Since CMC provides effective channels to represent spoken vernaculars in writing and offers a virtual world for faster communication, the standardisation issue lags behind. Deviation from standard norms may include typographic innovative changes (e.g., capitalisation and omission of grammatical and consonantal elements), and syllabic and vocalic changes (e.g., substitution, omission, and lengthening). Moreover, CMC develops a "code-centred contextualisation cuing" (e.g., laughter) to make up for the paralinguistic features of visual communication (Georgakopoulou, 1997, p. 158).

Governed by constraints related to CMC genres, like time and space limitations, network speed and lack of paralinguistic cues, users in CMC adopt novel means to compensate for the

absence of paralinguistic features available in face-to-face interactions. This may include abbreviations such as lol (laughing out loud), capitalisation, repetition, symbols in place of words, and others (Al-Ohman, 2002; Salem, 2015). Thurlow and Brown (2003) discuss other salient features of CMC such as shortenings and contractions (missing end/middle letters), clipping (missing final letter), acronyms and initialisms, and homophones (numerals and letters). However, certain features appear in different CMC genres at different rates. According to Lyddy et al. (2014), the use of abbreviations (e.g., lol, brb), acronyms (e.g., FYI [for your information], IKR [I know, right]), and clippings (e.g., info, tech) appear at a high rate in different CMC genres. Furthermore, symbolically-based forms such as emoticons (e.g., ':)' represents a happy face), typographic symbols (e.g., multiple characters as in 'yesss'), and letter and number homophones (e.g., 'be4' for 'before') are momentous features of CMC (Crystal (2008).

Script/Code Choice and the Romanization in CMC

In principle, it is a striking violation and deviation of the conventionalised orthographic systems and norms (Sebba, 2002). The discussion of patterns of electronic writing inevitably leads us to its prominent manifestation: script choice. (Warschauer et al. (2002) refer to script choice online as the choice of "codes" or "linguistic resources" that are available to internet users. The prominent impact of English in CMC contexts has led to the emergence of local non-Romanised varieties orthographically transliterated by Romanised letters; that is, the representation of non-Romanised codes by means of Roman alphabets (Crystal, 2008; Bianchi, 2012). This is usually achieved based on the pronunciation of these varieties in English.

Transliteration is broadly defined as maintenance of the sound transcription of an utterance from one language into another (Knight & Graehl, 1998). Though regular transliteration normally abides by defined guidelines, this is not always the case in online publications. When the era of the Internet began, the process of transmitting non-Romanised texts was done using ASCII (American Standard Code for Information Interchange). Despite the development of a modified protocol (called UNICODE) to represent various languages online, ASCII is still used in CMC when transliterating non-Romanised languages (Salem, 2015; Al-Othman, 2012). As a consequence, this has led to the emergence of online versions of certain languages and varieties such as the case of Greeklish (Androutsopoulos, 2007) and 3arabizi (Bianchi, 2012) to stand for the online Romanised transliteration of Greek and Arabic respectively.

Script choice online can take the form of mixed-scripts. This practice is referred to as code-switching (CS), which is basically a spoken phenomenon. In verbal interaction, CS is defined

as the alternating use of different grammatical systems within the same conversation or speech and is driven by participant- and discourse-related motivations (Auer, 1999). Nevertheless, with the rapid development of communication, CS has been extended to online (written) languages. This aids CMC to become an "extension" of real-life conversations and therefore justifies the use of verbal phenomena, including CS, in CMC's different genres (Dorleijn, 2016). Thus, in form, online CS is the 'juxtaposition' between different scripts.

Review of Related Literature

Hasan and Muhayyang (2018) examine language features in CMC by analysing the language of ten students taking part in an online class, called Pertmax, in BritishEnglishclass.com. The study classifies features into lexical, orthographic, grammatical, discourse, paralinguistic and graphic, and other features (e.g., written laughter). In the same vein, Lyddy et al. (2014) investigate the features of English text messages of university students and conclude that the language of text messages does not follow nonstandard spelling in the first place.

As for code and script preference in CMC, Paolillo (1996) examines code choice in the Usenet newsgroup soc.culture.Punjab, finding that English is more frequent than Punjabi, and the use of Punjabi was restricted to lexical insertions representing Punjab localities, due to the prestigious status of English and the ambivalent cultural behaviour of Punjabi diaspora speakers. Marley (2011) investigates code choice in Moroccan diaspora communities living in France and the UK on two internet sites: 'Yabiladi' and 'Moroccanstar'. 'Yabiladi' comprises the Moroccan diaspora in France and 'Moroccanstar' is the Moroccan diaspora in the UK. The study reveals that the French was the overriding choice for users of 'Yabiladi', and English for the members of 'Moroccanstar'. In both diasporas, CS was motivated by cultural references. Hussain (2013) examines various linguistic aspects used in 5000 interpersonal text messages of Pakistani users at lexical, syntactic, punctuation, space, code and script levels. The study reports that Pakistani texters preferred Roman scripts for both Urdu and English.

Caparas and Gustilo (2017) analyse 200 status updates and 100 wall posts from 50 Facebook accounts of students and graduates of a leading state university in Mindanao, who along with English and Filipino, speak various regional varieties such as Chavacano, Cebuano and Tausug. 'Taglish' is reported to be the preferred code in their online communication, implying that Taglish is an equaliser, and more unifying. Lexical need is found to be the primary reason for CS. Spilioti (2019) studied the phenomenon of transliteration by analysing English-related forms which are respelled with Greek characters in internet sites. By analysing 1000 tokens, Spilioti (2019) concludes that "trans-scripting is the key in understanding processes of respelling" (p. 8).

Studies conducted on the representation of Arabic varieties in different CMC settings (Haggan 2007; Mostari 2009; Al-Othman, 2012) reach nearly the same conclusion, that is, the numeric substitution of Arabic letters that have no equivalents in English is based on their resemblance (the shape of the letters and the numbers used to substitute them). For instance, the letters ع (ʕ), and ح (ḥ) are replaced by the numerals, <3> and <7>, respectively. Salem (2015) conducted a study on different CMC aspects in Facebook chat conversations of Jordanian bilingual speakers. Along with the CMC data, the corpus of the study consists of 15 hours of spontaneous conversation. For the CMC part, he analyses Facebook chat histories of 45 informants representing different socio-economic backgrounds. His study aims at figuring out some aspects of CMC: features, romanisation, and code and script choice. The findings of the study showed that Jordanians prefer English and RA in CMC writing. Consonant/vowel deletion, addition and lengthening, capitalisation for emphasis, abbreviation and the substitution of letters that are missing in English by numbers, were shown to be the salient features of the RA representation of the spoken variety.

In another study tackling script choice in Jordanian CMC, Hamdan (2016) examines the attitudes of students at the University of Jordan towards the use of RA. The study includes students from different majors. The results reveal that applied English and medicine students tended to use Romanised Jordanian Arabic in CMC. On the other hand, students majoring in the Arabic Language and Religious Studies preferred using Arabic letters.

As far as the Jordanian CMC contexts are concerned, this study investigates all prototypical aspects that are related to practicing RA online by Jordanian users. This study is unique for two reasons. The first is that it addresses recurring features in CMC Romanised writing script specifically, and the second is that it sets a condition of such recurrence: these features are used and repeated in two social CMC genres, namely Facebook posts/comments and WhatsApp text messages. The study raises the following questions:

1. What are the characteristics of the Romanised transliteration of Jordanian Arabic that are frequently repeated in both Facebook posts/comments and WhatsApp text messages?
2. Are there any recurrent communicative practices related to/accompanied with the use of RA?

Corpus and Data Analysis

Since the goal of the study is to examine repeated RA practices in more than one CMC medium, the data was selected from Facebook and WhatsApp, being the most popular CMC channels used by Jordanians. Another basis for the selection of these two mediums is their interactive nature. In other words, the post-comment, comment-comment, and the turn-turn interactions in Facebook and WhatsApp relatively resemble spontaneous conversations. The

corpus of the study consists of 200 Facebook posts and their comments, and transcripts from three WhatsApp groups. The Facebook data were collected from 36 informants representing different age groups, gender and socio-economic backgrounds. The selection of the informants was random and based on personal nomination and friends' invitations. Five posts/comments at least were selected from the Facebook pages of each informant after getting their consent, though the privacy settings for all posts were made public. Table 1 shows information related to the sociolinguistic variables of the informants.

Table 1: Characteristics of Facebook informants

Age groups	**Male**	**Female**	**Socio-economic information (occupation)**	**M**	**F**
18-24	9	5	students (applied English, Literature, Engineering, Medicine, Business Administration, Computer Science)	6	4
			teachers (applied English, Literature, Maths)	2	1
			IT programmer	1	
25-34	7	5	teachers (Literature, Physics, Arabic, Computer Science)	3	3
			Engineers	3	1
			Physicians	1	1
35-50	6	4	University Lecturer (applied English, Spanish)	3	2
			Business administrator	3	1
			Journalist		1

As noted above, three WhatsApp groups were selected as part of the corpus. The number of WhatsApp groups was chosen purposefully. The selection aims at getting similar and different age groups, gender and occupational interests. These groups were labelled as 'The NATO', 'Friends 4ever', and 'The group'. The 'NATO' group consisted of 12 members and was humorously named to denote Faculty membership. That is, all members are intimate friends who shared the same field of occupation, which is engineering. The second group consisted of 18 students enrolling in the Faculty of Foreign Languages at the University of Jordan. The third group, the only group that was named in Arabic 'el-shelleh' 'the Intimates', was for friends and colleagues who did not share the same occupation. The group had 20 members and was basically a channel for the announcement of weekend gatherings. A total of 50 threads were selected for analysis from the three groups. Ten threads at least from each group were selected. A thread is defined as a complete chat conversation about a certain topic or topics. In addition, the researcher asked for some dyadic conversation threads between members of the same group via their personal WhatsApp accounts. These dyadic conversation threads were obtained from four members of each group (two males and two females), yielding a sum of 86 conversation threads (50 from groups and 36 from

individuals). All the chosen WhatsApp conversation threads (as well as Facebook posts/comments) contained RA script. Table 2 shows information of some sociolinguistic variables for members of the three groups.

Table 2: Characteristics of WhatsApp Informants

Group	Age group	M	F	Occupation
The NATO	27-36	7	5	Engineers
Friends 4ever	22-26	6	12	Students
The group	35-50	12	8	Different occupations (nurses, teachers, business managers, university lecturers, journalists

The analysis of the data consists of two stages. The first stage centres on the features of RA online. The researcher has set a criterion for accepting any feature, which is the occurrence of the feature in any CMC medium three times or more by different users and its occurrence in the other medium as well, even once. This is to ensure that this feature is not a certain CMC genre specific feature. As for the second stage, it is an analysis of any recurring communicative phenomena in the two mediums related to or accompanied by the use of the RA script. In this stage, the same criterion for acceptability followed in the first stage is adopted. Two recurrent communicative script/code-based practices were identified; one of them was excluded due to its restrictive occurrence in Facebook posts/comments interactions. The other identified communicative RA practice is subject to further structural and functional analysis.

Findings and Discussion

The findings reveal that the Romanised representation of Jordanian Arabic has three basic dimensions: orthographic, linguistic and paralinguistic. The distinction between them is not always clear-cut where a certain given aspect (such as capitalisation) can have an orthographic and a linguistic consideration. The orthographic dimension has to do with the renderings of sounds and alphabets. Sentence types, use of vocabulary, and communicative mixed-code practices fall under linguistic aspects of RA. The third dimension has to do with all techniques that are employed by Jordanian informants to compensate for the lack of face-to-face interactions such as facial expressions and intonation. The analysis shows that Jordanians tend to use a unique Romanised transliteration system that, in many of its aspects, resembles the conversational event in spoken discourse, i.e., it is an online variety of Arabic where a written representation of a spoken language (social vernacular) is offered using Roman conventions. This electronic written representation of the spoken dialect seems to have remarkable characteristics that are merely recognisable in CMC discourse. Furthermore, with respect to the communicative aspect of the RA script used in WhatsApp messages and

Facebook posts/comments, the data reports an excessive use of patterned mixed-code of English and RA within the same turn. Further analysis of these two practices is given in subsequent sections.

Characteristics of RA Transliteration

As per the findings of the study, although the RA transliteration sounds consistent in its general guidelines, Jordanian users manifest a degree of online inconsistency in using the symbols and characters. RA transliteration discloses a conventional, yet optional, representation of orthography, spelling irregularities, and a creative, economic and simplified way of expressing Jordanian Arabic online. In addition, the features employed by Jordanian users reflect social and pragmatic meanings. Arabic consonants that have counterparts in English are represented by Roman characters based on the phonetic similarity between the Arabic and the English characters. That is, it is a one-to-one mapping between the Arabic phoneme and the English pronunciation of these Roman characters. On this account, the characters /b/, /d/, /f/, /k/, /l/ and /m/, for instance, are represented by their English counterparts. However, the /g/ sound, which is a consonant in the spoken variety, not the standard (MSA), is rendered as the English /g/ or as <2>, depending on the social dialect and the socio-demographic factors of the informant. In contrast, consonants that do not exist in English are represented by numerals that resemble the shape of the Arabic sounds. Hence, the representation of these characters is based on the graphic similarities between their shapes and the numerals that correspond to them (Salem, 2015; Al-Othman, 2012). Some of these phonemes are represented by two or more graphemes. Table 3 shows the Romanised transliteration of Arabic consonants that do not have counterparts in English.

Table 3: Romanised transliteration of Arabic consonants that have no counterparts in English

IPA	Arabic letter	Description	Orthographic representation in Romanised Arabic
ʔ	<ء>	Voiceless glottal stop	<2>
ħ	<ح>	Voiceless pharyngeal fricative	<7>
χ	<خ >	Voiceless uvular fricative	<7'>
$s^ʕ$	<ص>	Voiceless dental-pharyngealised fricative	<9>
$d^ʕ$	<ض>	Voiced dental-pharyngealised fricative	<dh>, <d>, <d'>, <9'>
$ð^ʕ$	<ظ>	Voiced dental-pharyngealised stop	<dh>,<d>,<d'>,<6'>
$t^ʕ$	<ط >	Voiceless dental-pharyngealised stop	<6>
ʕ	< ع>	Voiced pharyngeal fricative	<3>
ɣ	<غ>	Voiced velar fricative	<3'>, <gh>
q	<ق>	Voiced uvular stop	<8>, <q'>, <g>

Vowel representation is a bit confusing and partly inconsistent, due to cases of an interchangeable use of certain vowels and multiple graphemes (vowel lengthening). The interpretation of vowel representation may be misguided by the script, especially in the case of lengthened vowels, where pragmatic and orthographic considerations overlap. The short vowel /a/ in laa 'no' can be interpreted as an orthographic representation (lengthening of a short vowel), a paralinguistic feature, or a pragmatic mechanism (lengthening for emphasis). Table 4 illustrates the most frequent renderings of vowels in Romanised transliteration.

Table 4: The most frequent renderings of vowels in RA transliteration

	vowels	Description	Representation in Romanised script
Short vowels	/i/	High front vowel	<i>, <e>, <y>
	/e/	Low front vowel	<e>, <i>
	/a/	Low back vowel	<a>
	/u/	High back vowel	<u>, <o>
	/o/	Mid back vowel	<u>, <o>
Long vowels			
	/ī/	High front vowel	<ee>, <e>, <i>
	/ā/	Low back vowel	<aa>, <a>
	/ū/	High back vowel	<uu>, <u>, <oo>
	/ō/	Mid back vowel	<oo>, <o>
	/ē/	Mid front vowel	<e>

The data reveals that representing Jordanian Arabic goes beyond methods of representing the alphabets (whether existing or missing in English). It includes inventive orthographic, linguistic and paralinguistic manifestations. It also confirms that RA written protocols are somehow arbitrary and not rule-governed since they are constrained by a combination of orthographic, social and linguistic considerations such as playfulness, solidarity, identity and economy. Table 5 reflects orthographic, linguistic and paralinguistic distinctive features of RA transliteration.

Table 5: Orthographic, linguistic and paralinguistic features of RA transliteration

Feature	**Examples**	**Token occurrences in the two CMC genre**
Deletion of short vowels	mn for min 'from', 3m for 3am 'uncle', r7 for ra7 'he went'	104
Preference of short vowels over long ones	ra7o, for raa7oo' they went', 7bob for 7boob 'pills', jahez for jaahiz'ready'	44
Preference of <e> over <i>	sen for sin 'tooth', 9aber for 9abir 'patient', fe for fi 'there is'	48
Preference for <y> over <i> at final positions	baddy for baddi, 3aly for 3aali 'high', 3endy for 3indi 'I have'	19
Deletion of the morphological feminine marker <h> in final position	sayyara for sayyarah 'car', yamma for yammah 'my mom', jam3a for jaam3ah 'university'	24
Deletion of initial voiceless glottal stop	emti7an for 2imti7aan 'exam', estifsar for 2istifsaar 'inquiry', stratejyeh for 2istrateejyyah 'strategy'	12
Deletion of vowels reflecting dialectical variations	msh instead of mosh or mish 'not', r7t instead of ri7t or ro7t 'I went', shft instead of shuft, shift or shofit 'I saw' jebt instead of jibit or jibt 'I brought'	14
Swear words	3r9, 'pimp', 3ohr 'prostitution', mam7on 'pervert'	64
Extensive use of emotive words	7bet 'I like', betjanen 'it is amazing', enjoy	
Multiple punctuation	!!!!!!, ????????, ...	165
Emoticon	☺, ☹, ;)	210
English-based abbreviation	Idk 'I do not know', btw 'by the way', lol 'laughs out loud'	18
Multiple grapheme	mmmmm, rheeeeeeeb 'great', suuuuuure 'sure', 7araaaaaam 'not allowed'	77
Letter and/or numeral homophones for English words and expressions	B4, 4U, C, CU, 2night	14
Symbols substituting words	*, * *, @, =, ?	12

Diagraphs	shams 'sun', thabet 'stable'	24
Capitalisation	HASSA 'now', NOOOO 'no', 3ARASY 'on my head'	52
Gemination	marra 'once', sallim 'say hi', bby 'bye', baddy 'I want'	21
The representation of the definite article	el-7ob 'the love', al-3amal 'the work', l-3alameh 'the mark'	59
Written out laughter	hhhhhh, hehehehe, hahahaha	92
Mixed-codes	thanx hanady el7elwih love you all ‘thank you sweet Hanady, miss you all’	348
elliptical sentences	fekra betjenen.. 7bet instead of hay fekra betjennen, 7abet-ha ‘it is a great idea, I like it’, msh jay bsht’3el instead of 2na mish jay l2ini bashta’3el ‘I am not coming because I am working’	31

Despite the moderately large number of their occurrences, the use of these features, and thus CMC writing, can be described as inconsistent. For example, the data shows a tendency toward deleting short vowels, but this was not always the case; it also shows cases where short vowels are retained. The same conclusion can be applied to the morphological feminine marker <h>in that it was maintained in final positions, unlike gemination alphabets which are mostly dropped in final positions. This holds true for most of the other features. Furthermore, it seems that Jordanian users are in certain usages driven by their effort to resemble their everyday spoken language as in the case of the use of swear words and gemination. They are also tempted by compensating the lack of paralinguistic features with all their pragmatic and emotional meanings as in the case of multiple graphemes, emoticons, capitalisation, punctuation marks, written out laughter, and others. Needless to say, the factor of economy and rapid communication has a role as well, as shown in the use of deletion, abbreviation, and letter and/or numeral homophones. Vowel deletion may be interpreted as an attempt of mapping to the Arabic script, where short vowels are not represented in writing. It can, furthermore, indicate a case of abbreviation that facilitates the writing (typing) process and eliminate confusion resulting from the choice between /i/ and /e/, for instance. In online Romanised Arabic of Jordanian users, geminate sounds are maintained through consonant-doubling, though they are reduced to one consonant in some cases, especially in final positions. Thus, the word baddy, 'I want', is transliterated as baddy and bady. The former indicated maintenance of geminates, whereas the latter deals with geminate characters as one consonant.

Concerning the sounds represented by diagraphs (mainly that have counterparts in English), their rendering is based on the English pronunciation of the Roman characters. Moreover, the

three phoneme-to-one grapheme correspondence in the representation of the Arabic definite article al, 'the', reflects a case of vowel change and vowel deletion in el- and l-, respectively. In addition, as the table reveals, letter and syllable numeric substitution is restrictedly an orthographic representation of English words and expressions. Only one instance of numeric substitution that stands for an Arabic syllable is found in the data. This instance is the word t3ash8 for t3ashet 'I had my supper' and which is used in a playful manner. When it comes to the use of emoticons, the most common features are those for happiness, sadness, smiling, shyness, confusion, wink and despair, showing 54, 44, 41, 28, 21 and 9 occurrences, respectively. With reference to punctuation marks, the most recurrent ones are exclamation marks, question marks, stops, dashes, and hyphens, reflecting 54, 45, 25, 19 and 11, respectively. Finally, some of the features mentioned in Table 5 are driven by pragmatic motivations, particularly punctuation marks, multiple graphemes (duplicating letters and vocalisation), capitalisation, numeric substitution, and swear and emotive words where a social identity is constructed through these Romanised practices. Their usage indexes intimacy, solidarity and in-group membership. The use of multiple graphemes and capitalisation may also serve as an emphatic or a clarification motivation, as shown in some of their usages.

Mixed Codes

Code-mixing between RA and English is found recurrent. To a large extent, this kind of recurrence, interestingly, is shown to be regularised. Indeed, it turns out to be something like a cliché, with certain patterned types of code-mixing that are undoubtedly not possible in everyday spontaneous conversations (see example 1 below, the English script is in parentheses).

1. ya 7abibty yaamal…we are so happy 4 u..l-omor kilo yarab
(my dear Amal… we are so happy for you. Wish you a long life)
2. mash2alla miss y all betjaneno… enjoy
(God blessings miss you all... you look great … enjoy)

What is unique in 1 and 2 above is not only the switching between RA and English but also the fact that the convergence between RA and English has yielded a repetitive, stereotypical form of mixing initiated with a cultural opening (religious or emotive) in RA that is followed by an affectionate expression in English and an explication or repetition of affection in RA, and which may end with a final wish in English. Table 6 shows the types of sentences in which code-mixing is found recurrent.

Table 6: Types of sentences in which code-mixing is found recurrent

Type of sentence	**Total number of occurrences**	**Occurrences in mixed script**
Sentences of compliments/responding to compliments	618	216
Sentences of coordination and subordination	117	48
Sentences with the expression 'the moment'	28	26
Sentences containing infinitive form	84	31
Sentences of participle verbs	52	19

In sentences of compliments/responding to compliments, code-mixing took different forms: admiration in English and explication in RA as in 3 and 4, admiration in RA and reiteration of admiration or shared feeling in English as in 5 and 6, and cultural/religious admiration or a wish in RA followed by an English clause of a praise/admiration/shared feelings in English and may be closed by an admiration or a wish in RA as in 7–10. In responding to compliments, Jordanian users tend to respond by a thanking expression in RA followed by either a praise or statement of shared feelings in English, or thanking in English followed by admiration/praise in Arabic and closing with shared feelings in English as in 11–13. In a related vein, we have a very innovative way of mixing in sentences of coordination and subordination. All the clauses that include connectors, whether in coordination or subordination, are given in RA. Interestingly, in the case of adverb clauses, RA subordinate clauses are used in their possible positions, initially or finally, as shown in examples 14–19. Being one of the most recurrent types of code-mixing attested in the data, sentences containing 'the moment' are mostly found in memes. Interestingly, only two examples are found without the use 'the moment'. Also, no other semantically similar English word rather than 'the moment' is found in the corpus in such a type of mixing. Examples in 20–22 illustrate this type. However, in RA-English mixing of sentences containing the infinitive form, the infinitive form is always in English. It is also noticed that it is preceded by an Arabic word that introduces a reason statement. Consider the examples from 23–25. The tendency in code-mixing in sentences of participle verbs is to have active and participle verbs in English and the rest in RA. Economy, however, seems to be a primary motivation here, as illustrated in examples from 26–29.

3. I think itz amazing !!!! mat3ob fejd
(I think it is amazing!!! well-done seriously)
4. itz elegant bjanen habibti
(It is elegant it is great my dear)
5. 9ora tagge3! gorgeous girls
(A perfect photo! [you are] gorgeous girls)

6. Allaaaaah ❤️❤️ sooooo cute

(My God ❤️❤️ [you are] so cute)

7. mashaallah like mom like daughter betjaneno 😘

(God blessings like mom like daughter you look great 😘)

8. mashallah sho kabraneh ?????? she is so pretty ykhlekum yaha ya rab

(God blessings she has grown up?????? She is so pretty may God protect her)

9. betjaneno ya rou7i 😊 always thought that was you

(you look great sweet heart 😊 always thought that was you)

10. 2lf mabroooook may Allah protect you and your family

(A thousand congratulations may Allah protect you and your family)

11. Tislamo ❤️❤️ so proud of you

(Thank you ❤️❤️ so proud of you)

12. Hayooooosh wallhi same feelings I miss you all

(Haya, I swear I have the same towards you I miss you all)

13. thanx hanady el7lweh love you all ❤️

(Thanks, sweet Hanady love you all ❤️)

14. Very costly bus msh 7ilo belmarrah

(It is very costly but it is not nice at all)

15. Always think ino lazem ashofek 🤔 w ni7ki

(I always think that I have to see you 🤔 and talk to you)

16. eza 7ada bado life gurd plz let me know

(If anyone needs a life guard please let me know)

17. I'll invite you lama ybalesh elfa9el

(I'll invite you when the semester starts)

18. Call me bas tusali

(Call me when you get home)

19. Bas tkhalsi go skype

(When you finish, go Skype)

20. the moment lama shoft l-emt7an 😱

(The moment when I saw the exam paper 😱)

21. the moment lama ynzal el-rateb 🤑

(The moment when the salary is deposited 🤑)

22. the moment baba w mama bshofony 😂

(The moment when my father and my mother see me 😂)

23. 3ashan to revise hek shway
(because I want to revise a bit)

24. l-fekra to look gher😎

(The idea is to look different😎)

25. maho to manage bady w2t 6weeeeel😂

(because to manage I need long time😂)
26. khalas ya 7ilo done
(Okay sweetheart, it is done)

27. Confirmed👆 kaman 3'ero????

(It is confirmed👆, anything else????)
28. kidding!!!!!!!! ma 9ar shi
(I am kidding!!!!!!! nothing wrong happened)
29. waiting … la tdal sa3a
(I am waiting … do not take an hour to be here)

Motivation of Recurrent Mixed-Code Practices

The findings show that when using RA and mixed-code practices in Facebook and WhatsApp, Jordanians tend to establish, maintain, reaffirm and negotiate interpersonal relationships, paving the way for creating an online social identity. This online identity is, more or less, a dynamically-established representation of social in-group membership. In RA-English mixed-code practices, Jordanian users adopt different participant- and discourse-related motivations of CS to establish such an identity. The study sample reveals that switching for emotiveness is a salient strategy that Jordanian users rely on to establish their online identity. Interestingly, in mixed-code practices, emotiveness takes the form of 'extended emotiveness' that has expressed over repeated patterns with an alternating switching fashion. Consider the following examples:

30. betjanen 7bebti she looks adorable …mashallaaa
(She looks great darling, she looks adorable… My God protect her)
31. mabrooook a gr8 bb 4 a gr8 mother
(congratulation, a great baby for a great mother)
32. Wht a job !! eshy m7tarm
(What a job! Something special)
33. 2llah ybarik fekom … miss u all
(God bless all of you… miss you all)

The extended emotive style is well-represented in 30, where identity is reaffirmed in RA and explicated through CS to English for emphatic purposes and reassured in the RA expression *mashallaaa*. Similarly, the congratulation and admiration are established and explicated in switching to English in 31 and 32, respectively. Even in cases of responding to compliments, the thanking is explicated by a switch as a means of reaffirming already established in-group identity. The same procedure is replicated in 3–13 above. The same can hold true for switching patterns in 14–29, which can also be seen as demonstration of online social identity. In fact, they are participants'-related CS such that they are innovative and playful online usages reflecting preference and competence in such a creative style of writing.

Conclusion

The study explores the prototypical practices of Jordanian RA in Facebook posts/comments and WhatsApp messages. A corpus of 200 Facebook posts/comments, transcripts of three WhatsApp groups, and dyadic WhatsApp text messages was compiled to achieve the goal of the study. The study requires the occurrence of the same feature in both tools to be regarded as recurrent. Two innovative recurrent practices related to RA are identified: the transliteration of RA characters and patterned CS practices. The study finds that the Romanised representation of Jordanian Arabic has three main aspects: orthographic, linguistic and paralinguistic. It also uncovers a sense of predictability in the creative representation of Jordanian Arabic's characters in the RA script. This is in line with previous studies that tackle the online representation of other Arabic varieties (e.g., Al-Othman 2012) and the online representation of Jordanian Arabic (e.g., Salem, 2015). However, the findings also reflect a degree of inconsistency in transliteration Jordanian Arabic online, presumably due to playfulness, economy and the reflection of social online identity. Since online communication simulates everyday speech, Jordanian interlocutors on Facebook and WhatsApp tend to excessively use alternative online resources to compensate for missing face-to-face paralinguistic features. On the other hand, recurrent mixed-code practices are found to follow relatively stereotypical patterns in which RA and English alternate innovatively to serve an online social identity function. RA-English CS to express compliments is found to be a striking instance of establishing and maintaining online social identity in which Jordanian users follow a patterned 'extended emotiveness' that is achieved through CS.

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