The Practicality of AsarFonts for Islāmic and Arabic Studies

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Abstract: Most of today's writing tools are designed to accommodate multiple language features in a single document; unfortunately the features are not thoroughly implemented in Islāmic and Arabic studies. This paper proposes a solution to overcome such problem by the invention of AsarFonts. It is a single font set that consists of some standard fonts that are used in the studies. The fonts are Times New Roman font with all standard Arabic Romanization letters and Traditional Arabic font with additional of six Jāwī letters. AsarFonts also comes with English-Arabic Romanization keyboard layout namely as AsarEN and Arabic-Jāwī QWERTY keyboard layout known as AsarAR; both are the first in the world. Through the invention of AsarFonts, the complicated process in writing academic articles in Islāmic and Arabic studies should be eliminated, or at least it can be reduced to a minimum level.

Key words: Arabic Romanization • Arabic-Jāwī QWERTY • Islāmic and Arabic studies

INTRODUCTION

Nowadays, Latin alphabet is the international standard for an academic writing, replacing Arabic which had been used for centuries before. The decline in the use of Arabic started way back from the 17th to 19th centuries and the pinnacle of its loss occurred during the former Ottoman and New Soviet territories, turning Latin letters to be the script of choice [1]. Apart from the imperialism and politics, another main factor that seems to contribute to the decline of Arabic usage nowadays is its usage in a computer. It is a very hard task to type Arabic script academically due to the lack of supporting applications in a computer operating system.

Therefore researchers from Islāmic and Arabic or Middle Eastern studies in particular, are frequently burdened with arduous tasks in writing academic papers because they have to incorporate various multilingual scripts in a single document. To accomplish a written task, they need to use a couple of writing tools and several types of fonts by copying and pasting, just like combining each piece of a puzzle into a single document. In other words, there are many obstacles in typing Islāmic and Arabic scripts academically. The situation is worsen when it comes to internet application [2]. This method proved to be time consuming for most authors. It is even harder to the publishers when it comes to printing the final work because the scripts require a compatible computer setup like the authors i.e. they need to install relevant writing tools and fonts as what the authors used in their scripts. As the result, many authors and publishers just write or publish any script in Islāmic and Arabic/Middle Eastern studies based on what they can do. As its result, we see many academic works in both fields, are written incorrectly especially these Arabic Romanization letters: Ā ā Ū ū Ī ī Ẓ ẓ Ṣ ṣ Ḍ ḍ Ṭ ṭ Ḥ ḥ Ħ/ ŧ. Hence many writers or researchers have to apply their own creative ways to write the letters [3].

ISLĀMIC AND ARABIC SCRIPT USAGE IN MALAYSIA

In addition to above mentioned problem; Jāwī (جاوي); or Yāwī in Pattani dialect, is an adapted Arabic alphabet for writing Malay language using Arabic characters [4]. It has six sounds which are not available

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in Arabic and they are Pā(ڤ), Gā (ݢ), Cā (چ),Vā (ۏ), Ngā (ڠ) and Nyā (ڽ). Furthermore, in Malaysian context, there is another special letter in Jāwī called '*HamzaŤh Sisipan*' or '*HamzaŤh Imbuhan*' as in (كيڬساءن : ٴ) which has a different position as compared to the normal '*HamzaŤh*' in the Arabic script [5] as in Arabic word (النساء). Consequently, Jāwī suffers the similar fate like the Arabic script; in fact, it's condition is worse due to the unavailability of standard keyboard layout for Jāwi characters [6]. This issue has been inadvertently neglected by respective standard authorities like Standards and Industrial Research Institute of Malaysia [7] and the like.

In Malaysia, especially amongst the government sectors, Windows applications such as Microsoft Word and Power Point are the typical applications used. However, the main problem occurs when it comes to typing Jāwi characters. Hence, one will end up resorting to some external software to be able to write Jāwi characters. Likewise, although Unicode supports Jāwi characters in its standard, its implementation in fonts is somehow found to be lacking and flawed. This is because such implementation is only available in Times New Roman and Arial fonts. The two fonts are supposed to render Jāwi by providing all the six Jāwī characters. Nevertheless, both have two defects as in the followings:

- The letter Gā (ݢ) is not in the right form. It appears in both as (ك).
- The glyphs used to represent Arabic-Jāwi letters is the Simplified Arabic font, which is not the standard glyph for paper writing. In fact, it simply does not look fine in Times New Roman and Arial fonts:

Asar:

إسمى عصر بن عبد الكريم وأنا محاضر فى جامعة ماليسيا ڤاهڠ

Times New Roman:

إسمي عصر بن عبد الكريم وأنا محاضر في جامعة ماليسيا ڤاهنغ

Arial:

إسمي عصر بن عبد الكريم وأنا محاضر في جامعة ماليسيا ڤاهنغ

DEVELOPMENT OF *ASAR* KEYBOARD LAYOUTS

The most obvious problem in Islāmic and Arabic/ Middle Eastern studies is related to the Arabic Romanization and Jāwi characters. Currently, there is no international standard for Arabic Romanization and Arabic-Jāwi keyboard layouts. Thus, the researchers propose Asar keyboard layouts for both. Asar keyboard layout for English/Latin typing namely as AsarEN, same as to the standard English keyboard layout, comprised of all standard characters used in English, i.e. 26 Latin letters starting from A to Z, numbers and some symbols. In addition to that, it also comes with all required macron and dot below letters for Islāmic and Arabic studies. They are: Ā(ا) ū Ū,(و) ī Ī (ي),ẓ Z (ظ), ş Ş (ص), ḍ Ḍ(ض), ṭ Ṭ(ط), ḥ Ḥ(ح), Ħ (ة) [3].

Of course there are already several commercial programmes for Arabic-Jāwi available in the market. However, most are found to be inadequate in meeting the requirements of writing a research or an academic paper of Islāmic and Arabic/ Middle Eastern studies. For instance, Roman Transliteration of Arabic Script (ROTAS) [8], a product of International Islamic University of Malaysia (IIUM) does not have the Jāwi support. Jawi Writer, on the other hand, which is produced by Software Trading is one of the programmes that supports Jāwī characters, but it was developed using virtual keyboard and it does not have Arabic Romanization letters.

UNIQUENESS OF ASARFONTS SOFTWARE

Table 1 illustrates the differences between AsarFonts with other software. It shows that AsarFonts has more advantages over the other software such as ROTAS or e-Jawi.

Meanwhile, Table 2 differentiates AsarFonts with other fonts. Arabic-Jāwi keyboard layout uses Latin QWERTY design. It is the most used modern-day keyboard layout [9]. This is important in helping researchers, writers or typists to be familiar with the Arabic and Jāwi letters position. In other words, there is no need to memorise the dual version of the keyboard layouts. Furthermore, according to Kamaruddin *et al.* [6], in designing a Jāwi script keyboard layout, an ergonomics point of view must be taken into consideration for ease of use in typing. To add, in comparison to the standardised keyboard layout in Windows, Asar Arabic-Jāwī QWERTY keyboard layout should be more practical to Malay people, particularly in Jāwi writing since Malay language consists of many words originated from Arabic and English.

Table 1: The differences between AsarFonts with other software

Fonts in AsarFonts	Other Software
- It can be used at any standard keyboard for Windows. - It comprises of all standard/ required characters by Islāmic and Arabic studies in English/ Latin, Arabic, Jāwī and Arabic Romanization letters for Arabic scripts, i.e. Arabic transliteration letters.	- ROTAS only for Arabic Romanization letters and it does not have Jāwī support. - E-Jawi only for Jāwī characters and can only be used for online work. Furthermore it does not have Arabic Romanization letters. - Jawi Writer only for Jāwī characters and it does not have Arabic Romanization letters.

Table 2: The differences between AsarFonts with other fonts

Fonts in AsarFonts	Fonts: Times New Roman & Arial
• It comprises of all standard/ required characters by Islāmic and Arabic studies in English/ Latin, Arabic, Jāwī and Arabic Romanization letters for Arabic script in a single font. • Based on QWERTY design	• No keyboard layout for Jāwī characters. • Arabic characters are placed totally different from the English characters.
	Traditional Arabic Font
	• No Jāwī characters. • Arabic characters are placed totally different from the English characters.
	Other Jāwī fonts (Biasa, Farsi*, Kufi 1, Naskh, Ringkas, Simple, Special, Thuluth, Traditional, Transparent, Variants, Diwani, (a) PCT, etc)
	All six Jāwī characters use certain places for Arabic characters, i.e. some of Arabic letters could not be used such as letters Fā'(ف), Ḍād (ض), Khā'(خ) & Ghīn (غ). *Jāwī Farsi font does have Khā'(خ) letter, but it does not have Chā'(چ) letter of Jāwī.

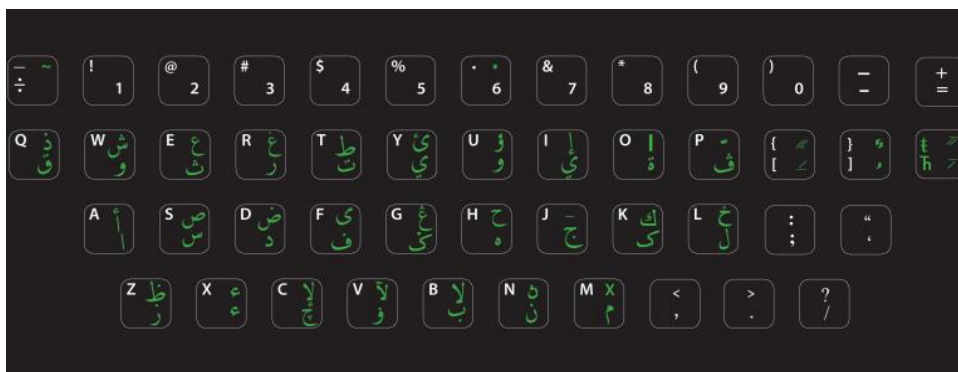Fig. 1: The normal Arabic keyboard layout (the standard one)

Fig. 2: Asar keyboard layouts (AsarEN & AsarAR).

Furthermore, Fig. 1 and 2 highlight the comparison between Asar keyboard layouts and the normal keyboard layouts for Windows. The normal or standard Arabic keyboard layout in Windows consists of only English and Arabic i.e. without Arabic Romanization and Jāwi letters (Fig. 1). The latter, the Asar keyboard layout, in contrast, caters to English, Arabic Romanization, Arabic and Jāwī characters (Fig. 2).

This research also compares Gyula [10] Arabic QWERTY design. The design managed to resemble the QWERTY keyboard, but somehow it is not completed and it is found to be incompatible with many Windows applications such Power Point. More importantly, the keyboard layout also does not have the Jāwi characters (Fig. 3).
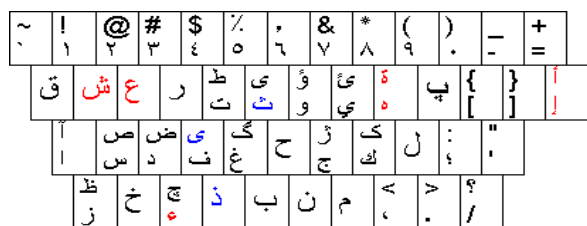

Fig. 3: Zsigri Gyula's keyboard design

Additionally, in contrast to Zsigri Gyula's keyboard layout, AsarFonts has been designed to be more stable and compatible with Windows applications. The characters could be typed by any keyboard that works with Windows. All the six Jāwi characters are mapped in the right places; this is the uniqueness of AsarFonts as compared to other Jāwī softwares discussed earlier. The other software replaces some Arabic letters with the Jāwi letters, hence causing all the Jāwi letters written by the software to be unstable and not compatible with other Windows applications such as Power Point. Other software also uses 'on screen keyboard' or virtual keyboard and that is found to be not user friendly whereby the user must use a mouse to point all letters.

CONCLUSION

In short, the researchers would like to recommend AsarFonts for Islāmic and Arabic Studies due to its practicality as compared to other fonts or software discussed earlier. Asar keyboard layouts are more practical than any other keyboard layout for the studies, they are the first in the world. The Arabic-Jāwī keyboard layout is really helpful for Malay people and they are even helpful for Arabs and other people who do not type Arabic on a regular basis. This is because the layout design is without a doubt more intuitive than the normal Microsoft Arabic keyboard

layout. Hence AsarFonts should be promoted for all students, researchers, writers and all related persons who are involved in Islāmic and Arabic studies. In addition to that, AsarFonts also paved a way to Jāwī "khat" writing using computer since it also consists of some other Arabic-Jāwī fonts, i.e. AsarDiwani, AsarKufi, AsarRaka'ah, AsarThuluth and AsarUthmanTaha" fonts.

However, since all the current keyboard layout designs particularly in Malaysia are still based on English/Latin characters version, it limits the keys on the keyboards to approximately 47 keys/buttons. Therefore, all composite characters that have been invented in AsarFonts, could not be shown in the keyboard. Although most of them can still be typed in Asar keyboard layout by pressing an assigned dead key and followed by the required characters. Hence a new design keyboard need to be introduced for AsarFonts.

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