Jawi hamzah : issues and solutions

Mohd Zamri Murah
Pattern Recognition Group
Center for Artificial Intelligence Technology
Fakulti Teknologi Dan Sains Maklumat
Universiti Kebangsaan Malaysia
zamri@ftsm.ukm.my

Abstract

The jawi script has a character hamzah ء which is similar to the arabic hamzah but it's position s 3/4 *above the baseline. Currently, this* 3/4 *hamzah is not coded in Unicode, thus unavailable in any standard Unicode fonts. This paper describe this issue and a few possible solutions.*

1. Introduction

Jawi is based on arabic script with 6 additional characters. It has been documented that the earliest malay document in jawi was dated 1043 AD. Its uses flourished with the advance of Islamic in the malay achipelago. In the 1965, the goverment has make the roman alphabets as the official script for malay language, thus begin the decline of the usage of jawi script in writing and publication.

Jawi script is based on arabic script with six additional jawi characters; چ ڠ ک و ڤ ث . All the additional jawi characters have complete Unicode support in Unicode version 4.1 in 2005. Prior to 2005, there were no support for some Jawi characters Jawi such as ۏ

The character ۏ was introduced in 1983[**?**]. The character three-quarter ۶ was introduced in 1983. Prior to that, this hamza is considered similar to أ. Observe the different position for the character ء in the examples;

1. كبڠساءن
2. كبڠساۏن

There are currently no Unicode mapping for three-quarter ۶.

2. Example of usage

See the subtle different position of ء in the following jawi words;

1. كمنڠۏن
2. كمنڠءن

The ء is shifted 3/4 from the baseline in the first word.

3. High hamza

Unicode has encoding for a character called `HIGH HAMZA` at `U+0674`. The size of the hamza is smaller. Compare the result from using the three type of hamza;

1. كبڠساءن ; using regular hamza
2. كبڠساۏن ; shift position
3. كبڠسأن ; using high hamza

4. Solutions

The issue of 3/4 hamza could be solved either by;

1. request for 3/4 hamza to be include in Unicode

2. shift regular hamza 3/4 up from the baseline

3. use high hamza

The best solution is to request 3/4 hamza to be included in the Unicode. In the mean time, the use of shift position of regular hamza or high hamza is considered a temporary solution.