## （e）Publish Up to the Identity of Jawi

To create accurate \＆beautiful documents up to the identity of Jawi，we have been developing a Jawi－friendly tool，with the help of which this paper has been prepared．It goes with the simplest \＆the most complex publishing applications，on both Windows \＆Mac platforms．Its power \＆ease of use renders it a must－have for schools，（e）publishers，\＆graphics designers with Jawi eyes．So，let us explore the tool as we walk through the smart，attractive \＆space－saving features of the Jawi script first，drawing comparison with Rumi wherever necessary．

## 1．Letters \＆Forms

In comparison with Rumi，Jawi make more letters with less letterforms，contrary to what is widely believed and taught． Elaborating：
Rumi has 26 letters and 52 forms．The dots of i\＆$j$ carry no information（meaningless）．Jawi has 34 letters \＆virtually 24 forms，\＆DOTS to discriminate similar forms．For the sake of elaboration，Jawi letters have been grouped in the attachment as follows：

1．The brown connects to none；i．e．it follows Rumi style，but it does live（single）successfully，
2．The blue connect to the green coming BEFORE，NOT AFTER them，
3．The green connect to All．Save 3，most of them have ONE \＆ONLY unchanging form that connect smoothly／appropriately to others，through tails that shrink and expand to terminate words clockwise or counterclockwise．

In this table：
Left column $=$ Number of forms needed
CW ：Clockwise termination of final form
CCW ：CounterClockwise termination of final form

| ＊ | Terminating |  |  | Heads |  | Number of Dots |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | How | Iso | End | Mid | Beg | 0 | 1 | 2 | 3 |
| 1 | N／A | 1 | l | $l$ | 1 | 1 | ． | ． | ． |
| 1 | N／A | V | ل | ل | $y$ | V | ． | ． | ． |
| 1 | N／A | $\bigcirc$ | $\downarrow$ | ل | $\checkmark$ | $\bigcirc$ | j |  |  |
| 1 | N／A | 9 | 9 | 9 | 9 | 9 | و | ． |  |
| 1 | N／A | J | J | J | J | J | j |  | ． |
| 1 | N／A | s | ¢ | ¢ | ¢ |  |  |  |  |
| 2 | CCW | $\varepsilon$ | 又 | 又 | c | $\varepsilon$ | $\dot{\varepsilon}$ |  | ๕ |
| 1 | CCW | 2 | $\tau$ | ح | $\sim$ | $\tau$ | $\dot{\text { ̇ }}$ | ． | ج |
| 1 | CW | b | b | b | b | b | ظ |  |  |
| 1 | CW | $\dot{ن}$ | $\dot{\sim}$ | j | 」 | ． | ． | ． | $\ddot{H}$ |
| 1 | CW | ف | ف | e | ف |  | ف |  | ڤ |
| 1 | CW | ق | ق | ق | ق | ． | ق | ． | ． |
| 1 | CW | ب | ب | $\pm$ | ！ |  | ب | ت | پ |
| 1 | CW | س | m | m | س | س | ． |  | ش |
| 1 | CW | $ص$ | $ص$ | ص | $ص$ | ص | $\dot{\nu}$ | ． | ． |
| 1 | CW | 0 | $\beta^{2}$ | － | م | $\bigcirc$ |  |  |  |
| 1 | CW | 5 | $\leqslant$ | S | 5 | 5 | $\xi$ |  |  |
| 1 | CW | J | $\downarrow$ | $\downarrow$ | J | $J$ |  | ． | ． |
| 2 | cW | ي | ي | $\stackrel{1}{*}$ | 」 | $v$ |  | ي |  |
| 3＊ | CW | 0 | d | $\theta$ | － | © | ． |  | ． |

－$H$ is the Only letter that needs 3 different forms


## 2. Harmonizing Gaps within Words

 Which word is easier to read?

As mentioned earlier, the blue do not connect to the letters after them, creating gaps within words. Most gaps go unnoticed, but the gap after $R$ or $Z$ makes a single word look two, as seen in most Jawi publications. Gaps vary in width with the variation of the letterforms, causing unpleasant irregularities that must be harmonized.

Our Jawi-friendly tool automatically harmonizes gaps, \& repositions the dots of the surroundings (if any) wherever necessary, making shorter \& more attractive words.

## 4. Harmonizing Spaces beween words

Unlike Rumi, Jawi words can go without spaces; one would simply understand where a word ends and the next one starts, because most letterforms reflect letter positions. Since space is inevitable in the world of publishing, evenly spaced words are preferable, but that is not possible with Jawi, because the words ending with $R$ \& $Z$, make wider spaces than those ending with others. The best \& easiest way to harmonize spaces is to find and replace all the spaces after R \& Z with half-spaces.

## 5. Overlapping \& Swashing

To create eye-catching titles \& headlines, our Jawi-friendly tool makes it easy to:

- move the final letter above or below \& across words.

- widen clockwise terminator \& overlap (section of) the following word across it.

$$
\text { ve } 0 \dot{9}-\operatorname{sg} 6 \ddot{\theta}
$$

Overlapping makes shorter words \& phrases, \& so does Ligatures.

## 6. Kaf Alternatives

Sample speaks louder than word:

7. Full \& Partial Ligatures (Kumplanan) The most distinguishing feature of Jawi is the smart \& intuitive formation (Kumplanan) of two or more of the green only at the beginning, but also at the middle \& end of words, where some of the green shoulder \& shelter others, forming self-explanatory ligatures:

$$
\begin{array}{ccc}
\text { Full } & \text { Partial (1) } & \text { Partial (2) }
\end{array}
$$

Depending on the set default, our tool outputs full or no ligatures first. If desired otherwise, that can be cancelled or (partially) changed, wherever applicable.
Ligatures make shorter \& more attractive phrases.

## 8. Dots + Marks (Positioning, coloring,

## \& Transformation)

Sometimes, Ligatures and overlapping necessitate (re)positioning of dots and marks to avoid collision. Our Jawifriendly tool makes is a easy as frying egg to:


- move dots \&/or marks up \& down, across \& back.
- turn the horizontal dots (..) to vertical (:).
- add as many dots \& marks as desired.
- get wider fatha (/) \& Tanween (//). By default, wide marks are set to wide letters.
- color letters, dots \& marks, independently or together.
- enlarge dot(s) to the desired size wherever needed.


## The Keyboad Utility

To assist researchers assign their own keys, we built a programmable keyboard, with the help of which we have standardized the Jawi Keyboard AFTER scrutinizing the spectrum of the Jawi script. Elaborating, the keys have been arranged in accord with letter frequency: the higher the frequency of the letter, the more accessible is the key.

