

Keystroke Log Package Wishlist

This is based on the amount of information contained in Monaco's dataset, any other dataset might have different input in the raw data (mouse information, metadata....) and would need extra analyses and functions.

1 Formatting and generating data

1.1 Reconstructing the text

- **Reconstructing the whole output:** Reconstructing the output of the dataset in a text file.
- **Split at the paragraph/answer level:** Split the output in paragraph (in Monaco's dataset, split per session).
- **Split at the sentence level:** Split the output in sentences.
- **Split at word N-Grams level:** Split the output according to a given number of words.
- **Split at the word level:** Split the output in words.
- **Split at key N-Grams level:** Split the output according to a given number of keys.

1.2 Computing variables

- **Inter-stroke duration:** The time between the time-press of a key and the time-press of the following key (type-2 in [Villani et al., 2006]).
- **Inter-stroke duration(*alternative*):** The time between the time-release of a key and the time-press of the following key (type-1 in [Villani et al., 2006]).
- **Within-stroke duration:** The time between the time-press and the time-release of a key
- **Speed or input rate:** In keystroke per second, time taken to enter the text divided by number of keystrokes.
- **Adjusted input rate:** time taken to enter the text minus pauses greater than half a second divided by the number of keystrokes([Villani et al., 2006]).
- **Part of speech tagging:** For each word. If the unit is bigger, make the sequence of part of speeches into a string
- **Location of key:** the position of the key in a word (initial, middle or final).

References

- [Villani et al., 2006] Villani, M., Tappert, C., Ngo, G., Simone, J., Fort, H. S., and Cha, S.-H. (2006). Keystroke biometric recognition studies on long-text input under ideal and application-oriented conditions. In *Computer Vision and Pattern Recognition Workshop, 2006. CVPRW'06. Conference on*, pages 39–39. IEEE.