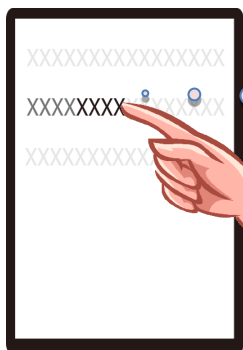




## A new method for reading dynamic texts using finger movements

**Abstract**— We propose a novel method for reading digital texts called “Yu bi Yomu.” With this method, the contrast of the displayed texts is changed dynamically in response to the reader’s finger. The text on the computer monitor is barely visible in the initial display but when the reader traces a finger across the monitor, the characters at the location of the finger appear and disappear gradually. This dynamic text presentation based on finger movement can provide a richer impression while reading. In addition, using this method, we can easily make a dynamic text movie and send it to others. This method enables us to express effectively subtle nuances in communication using text. This method provides a new perspective for text communication, and may be applicable to the education of young people.

Combination of **dynamic text presentation** and **user’s finger trailing** enables us to express temporal information, such as intonation and rhythm, in text communication.



Texts appear and disappear according to reader's finger trailing.

### Application scenario 1:

#### >>> Reading with the finger

Users can get deeper impression from dynamic text reading using his/her own finger trailing.

### Application scenario 2:

#### >>> Making and sending dynamic texts

Original dynamic text movie can be made using trailing behavior, and it can be sent to others.

### Point 1. Dynamic text presentation

Experiments revealed that manipulation of time course of dynamic contrast change leads to changes in reading impressions.



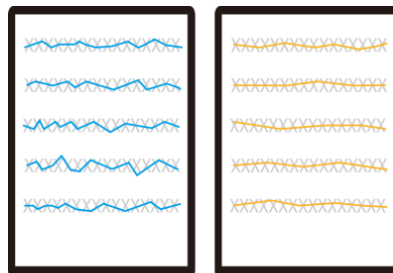
“Sharp and hard”  
impression

“Soft and warm”  
impression

Time from finger contact

### Point 2. Control with finger trailing

Different impression of texts can be generated by changing trailing behavior.



Difference in finger trailing behaviors

### Related works

- [1] K. Maruya, M. Uetsuki, H. Ando, J. Watanabe, “Dynamic Text Display Using Finger Trailing,” *Journal of Information Processing*, Vol. 54, No. 4, pp. 1507-1517, 2013 (in Japanese).
- [2] K. Maruya, M. Uetsuki, H. Ando, J. Watanabe, ““Yu bi Yomu”: Interactive reading of dynamic text,” in *Proc. ACM MultiMedia*, 2012.
- [3] K. Maruya, J. Watanabe, Patent Application, “Text Display Device , Method, and Program,” PAN 2011-168229, 1 Aug. 2011.

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