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Proceedings of the Second Workshop on Advances in Text Input Methods (WTIM 2)

Workshop chairs:
Kalika Bali, Monojit Choudhury and Yoh Okuno

15 December 2012
Mumbai, India
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Proceedings of the Second Workshop on Advances in Text Input Methods (WTIM 2)
Kalika Bali, Monojit Choudhury and Yoh Okuno (eds.)
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Preface

It is our great pleasure to present the proceedings of the Second Workshop on Advances in Text Input Methods (WTIM-2) held in conjunction with Coling 2012, on 15th December 2012, in Mumbai, India. This workshop is a sequel to the first WTIM which was held in conjunction with IJCNLP 2011 in November 2011, Chiang Mai, Thailand. The aim of the current workshop remains the same as the previous one that is to bring together the researchers and developers of text input technologies around the world, and share their innovations, research findings and issues across different applications, devices, modes and languages.

The proceedings contain nine contributions, five as long papers and the rest as short papers or demonstration proposals. Together they cover research on various languages including Assamese, Arabic, Bangla, Chinese, Dzongkha and Japanese, as well as keyboard design aspects of many languages using Brahmi derived scripts. The workshop featured two invited talks by Paul Butcher, Chief Software Architect of SwiftKey and Ram Prakash H., Founder and CEO of Tachyon Technologies, both of whom gave insights into development and deployment of commercial text input systems SwiftKey and Quillpad respectively. We would like to thank both the speakers for taking the time to share their experiences. The volume also includes a paper by Ram Prakash H. based on his invited talk.

In order to facilitate more interaction between the participants and presenters, all papers in WTIM-2 were presented as posters during a long session, which was preceded by short elevator pitches. In line with the same objective of increased interaction, we organized two focused sessions namely an open discussion on data and resources and a panel discussion on research and community building for text input methods.

We would like to take this opportunity to thank all the panelists, participants, presenters and authors for making WTIM-2 an enriching experience. We would also like to thank our PC members who did a wonderful job of critically reviewing the submissions and providing constructive feedback to the authors. Thanks are also due to Coling 2012 organizers for giving us this opportunity and helping us with various phases of organization, and to Microsoft Research Lab India for sponsorship. Last but not the least we would like to extend our gratitude to Hisami Suzuki, Microsoft, the founding co-chair of WTIM series, who advised us on different aspects of organization of the workshop.

Kalika Bali, Monojit Choudhury, Yoh Okuno
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Invited Talks

SwiftKey: Building a commercial success upon firm theoretical foundations
Speaker: Paul Butcher, SwiftKey

Abstract: At the heart of SwiftKey's success are well motivated Machine Learning and Natural Language Processing principles. But that foundation is only the start, it’s also required relentless focus on User Experience, solving endless real world issues and building and connecting with the vibrant community of SwiftKey users worldwide. This talk will take you through the story of how we turned a great IME into the most successful paid Android application in the world.

Speaker’s Bio: Paul is Chief Software Architect of NLP company SwiftKey, creators of the market-leading input method by the same name.

Quillpad multilingual predictive transliteration system
Speaker: Ram Prakash H, Tachyon Technologies

Abstract: Transliteration has been one of the common methods for multilingual text input. Many earlier methods employed transliteration schemes for defining one to one mapping of input alphabet combinations to output alphabet combinations. Though such well-defined mappings made it easier to write a transliteration program, the end user was burdened with learning the mappings. Further, though transliteration schemes try to map the alphabet combinations phonetically, it is unavoidable to introduce non intuitive combinations into the scheme. An alternative is to use predictive transliteration, where user could input a word, by intuitively combining the input alphabet phonetically, and the predictive transliteration system should correctly convert it to the target language. In this talk, I will present the challenges that must be addressed by such a system, and describe how Quillpad can be trained for performing predictive transliteration between any two alphabets.

Speaker’s Bio: Ram Prakash is the founder of Tachyon Technologies, and developer of Quillpad, the first online Indian language phonetic transliteration based input system. He was listed as one of the twenty MIT TR-35 2010 Young Innovators from India for Quillpad.
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Second Workshop on Advances in Text Input Methods (WTIM 2)

Program

Saturday, 15 December 2012

0900-09:10 Welcome Address by the Organizing Co-chairs

09:10–10:00 Invited Talk  
SwiftKey: Building a commercial success upon firm theoretical foundations  
Paul Butcher, SwiftKey

Poster Boasters

10:00–10:12 Statistical Input Method based on a Phrase Class n-gram Model  
Hirokuni Maeta and Shinsuke Mori

Yoh Okuno and Shinsuke Mori

10:24–10:36 Multi-objective Optimization for Efficient Brahmic Keyboards  
Albert Brouillette, Devraj Sarmah and Jugal Kalita

10:36–10:48 Using Collocations and K-means Clustering to Improve the N-pos Model for Japanese IME  
Long Chen, Xianchao Wu and Jingzhou He

10:48–11:00 phloat: Integrated Writing Environment for ESL learners  
Yuta Hayashibe, Masato Hagiwara and Satoshi Sekine

11:00–11:05 Bangla Phonetic Input Method with Foreign Words Handling  
Khan Md. Anwarus Salam, Nishino Tetsuro and Setsuo Yamada

11:05–11:10 LuitPad: A fully Unicode compatible Assamese writing software  
Navanath Saharia and Kishori M. Konwar

11:10–11:15 Romanized Arabic Transliteration  
Achraf Chalabi and Hany Gerges

11:15–11:30 Forward Transliteration of Dzongkha Text to Braille  
Tirthankar Dasgupta, Manjira Sinha and Anupam Basu

11:30–12:00 Coffee break

12:00–12:45 Quillpad Multilingual Predictive Transliteration System  
Ram Prakash H

Open Discussion

12:45–13:30 Data and Resources for Research on Text Input Methods

13:30–14:30 Lunch
Saturday, 15 December 2012 (continued)

**Poster and Demo Session**

14:30–16:00  
All long, short and demo paper will be presented as posters for better interaction among the participants and presenters

16:00–16:30  
Coffee break

**Panel Discussion**

16:30–17:45  
Future of Text Input Systems: Research directions and community building

17:45  
Vote of Thanks and Closing