

Exploiting Mobile Technology to Enhance EFL

Jack Halpern, CEO
The CJK Dictionary Institute

JALT2016: Transformation in Language Education

The emergence of smart mobile devices has made it possible to significantly enhance the language learning experience. This paper describes a groundbreaking platform (dubbed Libera) that combines the strengths of traditional bilingual parallel texts with the educational potential of the smart tablet platform. Libera is a parallel text reader that enables Japanese speakers learning English to read English texts without the need for tedious dictionary lookups, providing a more enjoyable and therefore more effective learning experience.

Libera employs an Interactive Parallel Text engine, a new form of hypertext technology developed specifically for this platform. Up to four texts are displayed side by side in a multi-panel interface for easy viewing. These panels display the original English text, an idiomatic Japanese translation, an IPA transcription, and an English-Japanese dictionary. The texts are precisely linked at the segment (word or phrase) level: tapping a segment (bitext link) in one panel simultaneously highlights the corresponding segment in all other panels and at the same time generates additional information such as vocabulary glosses, grammar notes, and recordings of native pronunciation.

Libera includes a dynamically linked context-sensitive dictionary. Tapping on a bitext link not only retrieves the canonical form from any inflected form, but also automatically selects and highlights the specific sense relevant to the context, even for highly polysemous words.

The innovative mobile platform described here promises to transform the face of learning English as a Foreign Language (EFL).

About Jack Halpern

Jack Halpern (春遍雀來), CEO of The CJK Dictionary Institute, is a lexicographer by profession. For sixteen years was engaged in the compilation of the *New Japanese-English Character Dictionary*, and as a research fellow at Showa Women's University (Tokyo), he was editor-in-chief of several kanji dictionaries for learners, which have become standard reference works.

Jack Halpern, who has lived in Japan over 40 years, was born in Germany and has lived in six countries including France, Brazil, Japan and the United States. An avid polyglot who specializes in Japanese and Chinese lexicography, he has studied 15 languages (speaks ten fluently) and has devoted several decades to the study of linguistics and lexicography.

On a lighter note, Jack Halpern loves the sport of unicycling. Founder and long-time president of the International Unicycling Federation, he has promoted the sport worldwide and is a director of the Japan Unicycling Association. Currently, his passions are playing the quena and improving his Chinese, Esperanto and Arabic.

The CJK Dictionary Institute

The CJK Dictionary Institute, Inc. (CJKI) specializes in CJK and Arabic computational lexicography. The institute creates and maintains CJK (Chinese, Japanese and Korean) and Arabic lexical databases currently covering approximately 24 million entries. Located in Saitama, Japan, CJKI is headed by Jack Halpern, editor-in-chief of the world-renowned *New Japanese-English Character Dictionary* and of various other CJK dictionaries.



CJKI plays a leading role in helping the IT industry penetrate the lucrative East Asian market by providing software developers with high quality dictionary data. This includes comprehensive databases of general vocabulary, proper nouns and technical terms for CJK languages, including Chinese dialects such as Cantonese and Hakka. CJKI also maintains databases and romanization systems of Arabic proper nouns, a large-scale Spanish-English dictionary, and various multilingual databases of proper nouns and geographic data.

CJKI has become one of the world's prime sources for CJK lexical resources. It is contributing to CJK and Arabic information processing technology by providing high-quality lexical resources and professional consulting services to some of the world's leading software developers and IT companies, including Fujitsu, Sharp, Sony, IBM, Google, Microsoft, Yahoo, Amazon and Baidu.