

# Groundbreaking Mobile Technology to Enhance Chinese and Japanese Language Learning

Presented by

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The screenshot shows a mobile application interface for language learning. At the top, there is a navigation bar with icons for Chapter 1 Sentence 3+, DEMO, and a search function. Below this, the main content area is divided into two columns. The left column contains Chinese text: "卡西姆是一个有钱的商人, 因为他娶了一位富商人的女儿, 又和富商人一起做买卖。". Below this text is a definition for the phrase "做买卖": "zuò mǎimai phrase do business, carry on trade" and a "Word info" button. The right column contains an English translation: "Qasim was a rich merchant because he had married the daughter of a rich merchant, and he worked with him in trade." Below this is the Japanese transcription: "Kǎxīmū shì yīge yǒuqiánde shāngrénn yīnwèi tā qǔ le yīwèi fūshāngrén de nǚ'ér yòu hé fūshāngrén yīqǐ zuò mǎimai". At the bottom of the screen, there are navigation arrows and labels for "zuò mǎimai" and "he worked...in trade".

Smart mobile devices make it possible to significantly enhance the language learning experience. Libera is a groundbreaking platform that leverages the educational potential of the smart tablet. Libera is a parallel text reader that enables learners of Chinese and Japanese (and other languages) to read texts without a dictionary and without a knowledge of Chinese characters, providing a more enjoyable and effective learning experience than ever before.

Libera employs an *Interactive Parallel Text* engine, a new form of 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 Japanese or Chinese text, an idiomatic translation into English, and a Japanese/Chinese-to-English dictionary. For Chinese, the user can choose *pinyin* or *zhuyin* transcriptions and traditional or simplified characters. For Japanese, the panels can display romaji, kana, furigana and kanji. The texts are precisely linked at the segment level: tapping a segment in one panel simultaneously highlights the corresponding segment in all other panels and generates additional information such as vocabulary glosses, grammar notes, and 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 dictionary sense relevant to the context, even for highly polysemous words. The innovative mobile platform described here promises to transform the face of learning foreign languages, especially Chinese and Japanese.

## 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.