EXPLOITING MOBILE-ASSISTED LANGUAGE LEARNING TECHNOLOGY TO ENHANCE JAPANESE LANGUAGE EDUCATION
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The emergence of smart mobile devices has prompted a sharp surge in "mobile-assisted language learning" (MALL) applications that significantly enhance the language learning experience. This paper describes how two such applications leverage mobile technology to help learners study Japanese effectively in hitherto unavailable ways.

The first, a kanji-English dictionary specifically designed for learners of Japanese as a Foreign Language, exploits the unique functionality of mobile devices and the latest advances in digital publishing technology. The paper analyzes the drawbacks of existing kanji dictionaries and describes how pedagogical lexicography was used to create a dictionary application that enables non-native speakers to gain an in-depth understanding of how kanji is used in contemporary Japanese. The paper also reports on a project to translate this dictionary into twelve other languages in order to make it accessible to learners in non-English speaking countries.

The method of compilation was based on a descriptive approach whose aim was to record usage based on actual occurrences. Each meaning was written afresh, the result of exhaustive semantic analysis, using such techniques as componential analysis and the study of near-synonyms. Although statistical data, corpora, and other dictionaries served as guidelines, the final authority was the evidence of the living language itself.

This application enables the learner to gain a full understanding of kanji through (1) the core meaning, a concise keyword that provides a clear grasp of the fundamental concept for each kanji, (2) up-to-date character meanings grouped around the core meaning in a manner that shows their semantic interrelatedness, (3) numerous illustrative compounds and examples, (4)discrimination of kun homophones (開く 'open' vs. 空く 'become vacant'), and (5) an efficient lookup

method (SKIP) that enables even beginners to locate characters quickly and accurately.

The second application is a groundbreaking platform for mobile devices that promises to change the face of Japanese language education by combining the strengths of traditional bilingual parallel texts with the untapped potential of mobile technology. This multi-panel platform introduces a new form of hypertext called Interactive Parallel Text (IPT) that moves these strengths from the physical to the virtual page. Up to four texts – from translated versions to alternative script forms (e.g. kana or romanized text) – appear side by side in separate panels for easy viewing.

This new platform enables learners to read Japanese more efficiently by allowing them to tap on a word/phrase in the kanji panel to simultaneously highlight the corresponding segment in the English, hiragana/ romaji and dictionary panels, making cross-lingual correspondences unambiguous. This sytem also allows more efficient vocabulary acquisition by providing a customized dictionary that highlights the particular sense of the selected word in context, a "word info screen" for in-depth word study with examples, context sensitive grammar notes, and high-quality audio recordings.

In sum, by providing learners with a user-friendly and aesthetically pleasing environment, this new platform makes the learning experience enjoyable and represents an innovative new direction in computer-assisted language learning.