Outside the Box: The Tsukuba Multi-Lingual Forum

Volume 2, Issue 1

Spring, 2009

Foreign Language Center

Tsukuba University

A Comparison of Electronic Dictionaries from Different Perspectives

Hideki Kambayashi and Markus Rude

In this article two users of electronic dictionaries (containing Japanese-English, English-Japanese, English-English dictionaries) will discuss some electronic dictionaries from *Casio* and *Seiko*. The first user and author of *Perspective 1* is a Japanese second-year student of English for Communication. His comparison focuses on differences between the electronic versions of the *Oxford Advanced Learner's Dictionary* and the *Longman Advanced American Dictionary*, both English-English dictionaries. He will discuss the usage of abbreviations, the layout of the entries and the presentation of pronunciation, all supplied with examples. The second user and author of *Perspective 2* is a German native speaker and an autonomous learner of Japanese. His comparison focuses on the usefulness of the dictionaries—beyond their function as dictionaries—related to supporting learning processes. He will discuss the usability of the history function and the memory function (if any) for vocabulary acquisition and the user-friendliness of these electronic devices, e.g., in terms of response time. The article finishes with some comments on the search and jump functions of one *Seiko* and one *Casio* model. Although those features are no longer available, the discussions are about features that are still standard and crucial in up-to-date models and therefore the article should be useful for anybody who wants to purchase an electronic dictionary.

Perspective 1: A comparison of English-English dictionaries

Have you ever compared two electronic dictionaries? By comparing two electronic dictionaries, we can know which dictionary suits us better. In this article, I would like to discuss the usage of abbreviations, the layout of entries, and the presentation of

pronunciation in two electronic English-English dictionaries and to describe some points where they are different. The models I compared were the *EX-word XD-V8800* from *Casio* and the *SII SR-E9000* from *Seiko*.

In a usual electronic dictionary, we can see some abbreviations (including symbols like opp, idm, phr v, and syn) which some Japanese English learners do not know. Abbreviations are usually used when a word is too long in order to make it short. However, for people who do not know what it means, it is not comfortable to use such a dictionary. (Actually, most of my university classmates did not know what "sth" means.) (The examples from above stand for "opposite", "idiom", "phrasal verb", "synonym", and "something". Did you know those?)

In *Oxford Advanced Learner's Dictionary* (OALD), there are a lot of abbreviations. On the other hand, in *Longman Advanced American Dictionary* (LAAD), there are not so many abbreviations as in OALD. (However, some simple abbreviations such as "sb" and "sth" appear in LAAD.) There are many more different types of abbreviation in OALD than in LAAD. It is easy for English learners to use LAAD. Therefore, it seems uncomfortable for English learners that OALD has many abbreviations and different types of them. However, once we get familiar with abbreviations, we can find out what we want to know easily because abbreviations make dictionary's entries shorter and easier to use. In contrast, LAAD's screen looks congested and difficult to check words because there are not so many abbreviations in it. (However, in recent models, the problem about the congestion has been solved.) If you compare the word "light" in these dictionaries, in OALD, you find that there are eight "opps" and that it is easy to check opposite words of "light". But in LAAD, you find that there are six "opposites" (unabbreviated forms of "opp") and that it is hard to check opposite words. If you compare the word "right (as an adjective)", in OALD, you find that there are six "opps", but in LAAD, you find that there

are four "opposites". Frequent use of short and transparent abbreviations makes it easy to find words because they are written in capital letters and in a word box.

Another point which contributes to the "congestion of the screen" is the layout, in particular the presentation of example sentences. In LAAD, example sentences are part of the main entry of a headword on the screen. For comparison, in OALD, we do not see example sentences until we activate an example button. Example sentences are hidden so that they will not make the screen congested. If you compare the entries under "generous", it fits on one screen in OALD. However, LAAD contains three screens full of data. But the number of examples is even higher in OALD (10) compared to LAAD (7) (see Table 1).

When we study English, we often check pronunciation by using a dictionary. The way to describe pronunciation is different from dictionary to dictionary. In OALD, you can tell American pronunciations from British ones easily because pronunciations are written separately, especially when the pronunciation is remarkably different. In contrast, in LAAD, since the dictionary is an American dictionary, you need to know the differences between American pronunciations and British ones if you want to know the British ones. For example, when we check the word "aubergine" in OALD, we can see its American pronunciation [oʊbərʒiˑn] and British one [əʊbəʒiˑn], but in LAAD, we only see the American one and we do not see the fact that the part of pronunciation, [oʊ] is [əʊ] in England if we want to know the British one.

Table 1. Example Definitions in OALD and LAAD

OALD (e. g., in *Seiko SII SR-E9000*)	LAAD (e. g., in *Casio EX-word XD-V8800*)
generous/‧dӡɛnərəs/ adj. (approving) **1** ~ **(with sth)** giving or willing to give freely; given freely: EX OPP MEAN **2** more than is necessary; large; EX **3** kind in the way you treat people; willing to see what is good about sb/ sth: EX ▶**generously** *adv.* : EX	**generous**/‧dӡɛnərəs/ adj. **1** willing to give more money, time etc. than is expected to help someone or give them pleasure ◆Mrs. Flatch is a very generous woman. [+ **to**] ◆Ida is more generous to family and friends than her sister. [+ **with**] ◆My grandfather has always been very generous with his money. …

Consequently, we can say that the entries in OALD are more readily understandable than in LAAD. In addition, OALD and LAAD are useful for intermediate and advanced English learners because they need to have knowledge to some degree. However, OALD is more useful for experienced English learners, and LAAD is more useful for intermediate English learners because abbreviations appear more often and are more technical in OALD than in LAAD.

Perspective 2: A comparison of electronic dictionaries for learning

Electronic dictionaries are in first respect dictionaries in electronic form: looking up a word takes just a fraction of the time compared to the time needed with a paper dictionary. Additionally, due to their nature, electronic dictionaries can be even more: by being able to present the data to the user in various forms and order, they can be powerful learning tools, e.g., for self testing and repetition of vocabulary. Hence, they can be the electronic counterpart of a paper

dictionary AND a pile of vocabulary flashcards at the same time. In the middle of the 1990s, the *Canon Wordtank* (*IDX-9500*) was a quite popular model. From today's point of view it is rather limited in overall contents and slow, with a small screen size of just about a quarter of the upper panel's surface. But it contained a memory function (word memo) with which users could store up to 500 items from the four different Japanese and English dictionaries included – Japanese/ Japanese, Japanese/English, Kanji/Japanese and English/Japanese (国語、和英、漢和、及び英和). Users could then quiz themselves on reading, writing, or translation (by first hiding and then showing some part of entries to be learned) of the vocabulary stored in various orders (alphabetically, input order or at random).

Already in the *Canon Wordtank* model *IDF-3000* from the end of the 1990's, the self-test function (quiz) was abandoned; in this report we want to take a look at some models from about 2005 from *Seiko* and *Casio* (*Seiko SR-T 4120, Seiko SR-T5000, Casio XD-V9000,* and the *Casio EX-word Dataplus XD-GW7150*).

Seiko *models*

Both *Seiko* models contain a history function (a single automatically generated list for all dictionaries) as well as a memory function (one manually generated list for each dictionary). In both—the history list and the memory lists—the contained items can be deleted individually or completely. Although there is no self-testing as in the old *Wordtank IDX-9500*, learning can be supported by the

Table 2. Various Response Times of Electronic Dictionaries (Two Seiko Models and Two Casio Models) Using History and Memory Functions.

	Model			
	Seiko SR-T4120	Seiko SR-T5000	Casio XD-V9000	Casio Exword XD-GW7150
Switch on	1.7s	0.5s	0.5s	0.7s[a]
History				
List display	0.2s	0.4s	0.2s	0.5s / 1.4s[b]
Item storage	0s (automat.)	0s (automat.)	0s (automat.)	0s (automat.)
Item deletion	2.0s (2 keys to press)	1.6s (2 keys to press)	unavailable[c]	2.2s / 2.5s[b] (3 keys)[d]
Preview	unavailable	unavailable	unavailable	0.2s
Memory				
List display	0.2s	0.4s	unavailable	0.6s / 1.8s[b]
Item storage	1.2s	1.0s	unavailable	1.6s / 2.9s[b]
Item deletion	1.9s (2 keys)	1.4s (2 keys)	unavailable	2.4s (3 keys)[d]
Put check mark	unavailable	unavailable	unavailable	1s[e]
Preview	unavailable	unavailable	unavailable	unavailable

Note. The time measurements were made indoors (about 20℃) and corrected for the physiological reaction time. However, a simple stop watch was used and therefore the times are not very precise (± 0.2s). [a]The device switches on automatically when opened. Hence, the practical switch-on time is negligible. [b]The shorter time is for a representative inbuilt dictionary, the longer time for a downloaded one. [c]Only the complete history list (or all history lists) can be deleted. [d]After deleting an item, the history list is abandoned. To reenter this mode and to move to the previous list position requires additional keyboard operations. After deleting an item, the memory list is abandoned. To reenter this mode and to move to the previous list position requires additional keyboard operations. [e]Checking items with a check mark allows grouping and—for example—the deletion of a whole group in one operation (3 keys).

following functions: users can tailor the history and memory lists according to their needs, e.g., by deleting items which they already have learned (or do not want to learn at all), but by keeping the items which they want to repeat in the future (until they are automatically deleted by exceeding the storage capacity). However, it must be said that the time it takes for storing items in the memory list (1.0s or 1.2s) or deleting them from the history and memory lists (1.4s to 2.0s) is considerable (see Table 2): it must be compared with the simple and quick manual process of distributing paper flashcards on two piles for "known" and "unknown" cards, which usually can be done at a rate of less than one second per card (in a flash!).

Casio *models*

As for the simpler *Casio XD-V9000*, individual items cannot be deleted from the history list and no memory is available: it cannot be considered as an electronic counterpart of flashcards. On the other hand, the *Casio EX-word XD-GW7150* offers the largest functionality with respect to learning: it allows the usage of check marks in the memory lists for grouping and for deleting groups in one step. Also the preview in the history mode enables – due to the spatial separation of headword and entry (headword in list in upper screen portion, entry in sub-window in lower screen portion) – effective self-testing. The only drawback of this machine is that it exhibits rather long response times for storage and deletion of items from the lists, especially for the downloaded dictionaries (up to 2.9s !). Such long response times clearly spoil the enthusiasm of learners for using these functions as a replacement for flashcards.

Some comments on the search and jump functions

Any discussion regarding electronic dictionaries would be incomplete without comments regarding their search and jump functions: both the *Casio EX-word XD-GW7150* and the *Seiko SR-E9000* offer a simultaneous headword search through all individual dictionaries at the same time (複数辞書 = multiple dictionary), which becomes a necessity as more and more dictionaries are contained in one machine. As for the *Seiko* model, this search function even searches through the extra dictionaries contained on an optional SD-card. Both models also allow an efficient sentence or phrase search for expressions like "rain cats and dogs" through combining keywords (search string: "rain&cats&dogs"). Usually, students are at a loss when they look up such phrases in a paper dictionary, since they do not know which headword they should look up. Finally, both models also contain the well-established jump-function (already the old *Canon Wordtank* had this function), which allows to search for any given word in any entry by simply selecting it and pushing the enter-button. Again, the *Seiko* model excels through offering not just a large list of dictionaries to jump to (some of which might not even contain the search word as happens with the *Casio*), but a concise list of just the dictionaries containing the given word as headword, PLUS the option to jump to example sentences that contain the given word.

Conclusion

In conclusion, <u>users</u> are advised to judge electronic dictionaries not solely by the number, kind and edition of individual dictionaries contained, but also by the availability of the above-mentioned functions (history, memory, etc.), sub-functions (individual deletion of items, check marks, etc.) AND response times of these functions. For downloaded dictionaries, these response times can be considerably longer compared to inbuilt dictionaries or dictionaries on SD-cards. Users who want to use the dictionaries as learning tools should choose models with an instant response (response time less than 1 second). As for the search and jump functions, the *Seiko* models appear to be more user-friendly and powerful.

<u>Manufacturers</u> are advised to take the needs of one important clientele—language learners—more into account and to include learning functions and learning games into their electronic dictionaries. It is clear, that such functionality has to go hand in hand with

quick response times: functions with response times of much more than one second will at best be ignored by the users or at worst will have negative effects on the cognitive growth of the learners. At this time, technical development seems to be going in another direction: it seems that quick response times are being sacrificed for the sake of maximum content. As evidence of this, the most recent model considered (*Casio EX-word XD-GW7150*)—though richest in content and overall functionality—exhibits the longest response times among the machines compared in this report.

About the authors: *Hideki Kambayashi is a Japanese native speaker and second-year student at Reitaku University who studies English for Communication. Markus Rude is a German native speaker and an autonomous learner of Japanese. He is an Associate Professor at the University of Tsukuba and teaches German.*

Information Technology Tips

In the course of preparing such things as class material and presentations, you might have need to use screenshots of webpages (one such example lies immediately below this text). One possibility, of course, is to use the built-in function on your computer: for Windows users, *print screen* will copy your entire screen, and *Alt + print screen* will copy the active window; Mac users would need *Command + Shift + 3* for the whole screen, and *Command + Shift + 4* (then drag to select the area you want) for a part of the screen.

However, **EasyCapture** is a much more versatile piece of freeware. It includes six copy options (full screen, active window, multiple windows, scrolling window, a fixed rectangle, and—most usefully—a rectangular region that allows the user to select the portion he/she would like to copy. In addition, **EasyCapture** includes filter functions, image editing functions, and a tabbed clipboard function for copying multiple images.

The picture to the right offers a idea of how easy **EasyCapture** is to use for capturing images and perhaps even speeding bears.

It's available several places, including http://www.xydownload.com/easycapture

Happy driving!