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## ***О роли электронного словаря в изучении языка, переводе и межкультурной коммуникации***

### АННОТАЦИЯ

Электронный словарь является современным, актуальным и мобильным средством оптимизации процесса перевода иностранной лексики, изучения родного и иностранного языка, межкультурного общения. Статья посвящена изучению типов электронных словарей, преимуществ электронных словарей по отношению к печатным. Отмечаются такие положительные характеристики электронного словаря, как неограниченные возможности хранения и презентации лексикографического материала, огромные возможности поиска словарной единицы по разным параметрам, высокая скорость поиска, возможность регулярного обновления содержания словарных статей, разнообразие способов поиска лингвистической и экстралингвистической информации, мобильность, доступность и т.д. Электронные словари должны отвечать требованиям пользователей с различным языковым опытом и целями обращения к электронному словарю, что достигается с помощью структурирования словарной статьи, соответствующим интерфейсом и многими другими дополнительными опциями, которые предлагают современные одноязычные и переводные электронные словари.

**Ключевые слова:** электронный словарь; печатный словарь; роль словаря в изучении языка; он-лайн словарь; офф-лайн словарь; лексикография.

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## ***The role of electronic dictionaries in language acquisition, translation and intercultural communication***

### АБСТРАКТ

Electronic dictionaries are gaining in popularity with an increasing number of L2 learners and the development of technologies that makes it possible to develop new lexicographical on-line and off-line products meeting the demands of L1 and L2 students, lexicologists, translators, etc. The advantages of electronic dictionaries such as sophisticated searching, unlimited storage capability, speed and types of search, etc. are described. The paper also examines the types of electronic dictionaries and the effects of dictionary use on vocabulary acquisition under electronic dictionary conditions and the role of dictionary format in the retention of meaning and collocations.

**Key words:** electronic dictionary; printed dictionary; language acquisition; lexicography; on-line dictionary, off-line dictionary.

The last few decades of the twentieth century saw the complete transformation of lexicographic work brought about by the advent of the computer as an analysis and editing tool. In the 1990s the first dictionaries were published in a digital form since then one could really start talking about electronic dictionaries. In the 1990's James-Catalano [7, c. 31] for the first time referred to electronic dictionaries as a 'valuable tool in the quest for knowledge'. Now it's considered to be not only a great pedagogical but communicative tool.

The term electronic dictionary (ED) can be used to refer to any reference material stored in electronic form that gives information about the spelling, meaning, or use of words [10, c. 839]. Electronic dictionaries may be divided into two main groups: those intended to be used interactively by people for consultation or reading, and those intended to be used automatically by computers for various applications, for instance in language technology contexts such as machine translation.

An electronic dictionary can be intended for use off-line and on-line [13, c. 438]. An off-line dictionary is stored with the individual user, either in a personal computer (PCD), or in an electronic pocket calculator or reading pen (PED). An on-line dictionary has been published on the internet and is consulted via the internet; it is thus not stored with the individual user. While the off-line dictionary, like the print dictionary can be regarded as a finished product, the on-line dictionary is in principle an unfinished product that can be continuously revised and enlarged, etc. V. Dubichinskiy considers this characteristic to be a valuable one as at any stage the electronic on-line dictionary can be edited and perfected [15, c. 368].

A further type of electronic dictionary – which is described by B. Svensen [13, c. 438] as a hybrid form between an on-line dictionary and off-line one – is stored on a server in the intranet of a company or institution, and is updated and consulted via that intranet and called Intranet dictionary.

For the lexicologist as well as language learners, one of the main advantages of an electronic dictionary over its printed counterpart is that it allows more sophisticated searching. Finding information in a printed dictionary (PD) is achieved

almost exclusively through the alphabetical list of lemmas. You could not, for example, discover all the words that have been borrowed into English from Hungarian, except by examining every etymology of every word in the dictionary [6, c. 147]. Electronic dictionaries allow searching of other field of information, so that the answer to the previous query could be ascertained quickly by searching the etymology in the electronic versions of the OED or the Concise Oxford Dictionary. The latter notes the following fifteen items as having a Hungarian origin: biro, cimbalom, coach, czardas, forint, goulash, hussar, kaposi's sarcoma, paprika, rubik's cube, sabre, shako, soutache, trigane, vampire.

Similarly, the definition 'field' of an electronic dictionary can be searched for all manner of information. A lexicologist or student who is investigating a particular lexical field can search for terms connected with the field in the definitions. If the field consists of specialist terms that are likely to be marked with a subject or domain label, then that label can be searched for. A search for 'prosody', which is a subject label in the concise Oxford dictionary, finds 46 items belonging to this lexical field [6, c. 147-148].

If the user is not sure of the spelling of the word *sought*, or feels a need to access all words where a certain combination of characters occurs, a Wildcard search facility may be used, where '\*' may stand for an arbitrary number of unknown characters and '?' for a single unknown character. For instance, searching on 'perc\*ve' will yield perceive, reducing the list for every character added in the box (incremental search).

Some dictionaries are designed to meet the needs of crossword solvers or scrabble players and may also offer facilities such as anagram search and positional-alphabetical search (for instance, searching for all the words having eight letters of which the third is a 'g') [13, c. 442].

The use of an electronic dictionary is not hampered by the various obstacles present in print dictionaries. For instance, the user no longer has to wonder in which entry a certain word combination can be expected to appear. Thanks to the electronic dictionary, idiomatic word combinations can be said to have attained independent status for the first time in a general-purpose dictionary.

In 1989, W. Dodd predicted that the following types of search would be possible in an elec-

tronic dictionary [3, с. 89]: search for words with a certain pronunciation, words with a certain spelling, words of a certain origin, words of a certain age, words with a certain diastatic marking, words with a certain diatechnical marking, certain type of semantic relationship, a certain semantic field, words belonging to a certain part of speech, words used in a certain construction.

The prediction can probably be said to have come true.

Electronic dictionaries allow some extensive and advanced searching of the dictionary text, and that allows the user to get much information required; but there is no certainty that the information obtained is comprehensive and completely reliable [6, с. 148]. The problem arises from the fact that EDs are in most cases merely PDs transferred without any modification to the electronic format. As a result, all the inconsistencies of labeling and defining are replicated in the electronic version, with consequences for the reliability of search results.

Another advantage of an electronic dictionary is storage capacity.

The space restrictions of a printed book are not replicated in the CD-ROM medium. In the ED the amount of space available is more or less unlimited. The capacity of a CD-ROM, for example, is approximately 650 MB (=650 million characters). A normal English L2 dictionary will require only about a two hundredth of that space [9, с. 296].

Another characteristic difference between electronic dictionaries and print dictionaries involves dictionary structure. Several traditional structures have become less important or even quite irrelevant, and the structure predominating in ED is the access structure, which, however, functions in quite a different way there than it does in a print dictionary.

Access structure is the structure of the dictionary directing users to the information they are looking for in the dictionary. There are two kinds: outer access and inner access structure [13, с. 79]. The outer structure is the structure of the indicators which, at the macrostructural level, direct the users to the lemma they are looking for. One of the most important components of the outer access structure is the running heads, which are mostly located at the top left of the left-hand pages and at the top right of the

right-hand page, respectively. The most important component of the outer access structure is obviously the lemma itself.

The inner access structure is the structure of the indicators which, at the microstructural level, direct the users to the information sought about the lemma.

The most important access facility in ED is linking. A link may be either a dictionary-internal or dictionary external. The type of dictionary-internal link that is most reminiscent of print dictionaries is the cross-reference, from which a click of the mouse will take the user to the place where the nomination is given. However, the ED offers an endless number of other internal linking possibilities, for instance [13, с. 443]:

- ✓ Linking to a certain entry by clicking on the lemma concerned in an alphabetical lemma list displayed in a separate window.
- ✓ Linking to a certain entry by clicking on the lemma concerned when it appears in another entry.
- ✓ Linking to a certain sense by clicking on it in a window where the polysemy structure of the lemma is displayed in diagrammatic form.
- ✓ Linking to another dictionary component that may offer, among other things: audio pronunciation, a list of semantically related words, a picture, supporting a definition, a selection of examples showing the use of the word in the sense concerned, etc.

Dictionary-external links lead to components other than those included in the dictionary the user is currently consulting. Some EDs are provided with entire 'bookshelves' containing, for instance:

- ✓ An encyclopedia
- ✓ A technical dictionary
- ✓ A reverse-order dictionary
- ✓ An etymological dictionary
- ✓ A thesaurus
- ✓ A searchable corpus of authentic text.

The number of possibilities is increased when more than one language is involved.

Due to the unlimited amount of space available, there is a great risk of being drowned in information, and also a risk that the abundance of options and links will be confusing. The sole

fact that something is feasible does not necessarily imply that it must be done. Every option and every link must be clearly examined and justified by the genuine purpose of the dictionary.

One more advantage of electronic dictionaries is that the process of searching for a word is less time-consuming, which results in a large number of words looked up [1, c.70; 5, c. 65; 11, c. 111-112]. 'If a pedagogical tool is popular with the students, the chances are that it will also be beneficial for learning' [8, c. 68]. However, it is still uncertain if the fast search and a larger number of dictionary consultations stimulated by electronic reference tools have long-lasting educational advantages [11, c. 113; 14, c. 855].

The authors admit that the benefits of speed alone are an open question. Sharpe [12, c. 50] points out that the short time needed to retrieve information with the help of EDs may not enhance the retention of the information for language learning purposes. It is postulated that the ease of ED use can result in shallow processing of the looked up words, which may be downright detrimental to retention. H. Nesi [10, c. 844] points out, there is a 'possibility that the most easily extracted information may require least thought, and be soonest forgotten'. In fact, what really matters to word retention is the attention during the look-up process rather than the number of look-ups. Laufer and Hill [8, c. 72] claim that 'the number of times the word is looked up during a learning session bears almost no relation to its retention'.

Scholars have conducted research on the role of electronic and paper dictionaries in L2 acquisition. One of them investigated the role of monolingual English learners' dictionary in paper and electronic form in receptive and productive tasks, and assessed the role of dictionary form (paper and electronic) in the retention of meaning and collocations [4, c. 257-273].

The study conducted at Adam Mickiewicz University, Poznan, Poland attempted to answer the following research questions:

(1) Is the ED more useful in L2 production and reception than the paper one?

(2) Which dictionary, paper or electronic, is a better learning tool? In other words, is vocabulary retention (i.e. the retention of meaning and collocations) dependent on the form of the consulted dictionary (paper vs. electronic)?

The experiment consisted of a pretest, a test proper, and an unexpected delayed recall test. The results of the experiment suggested that the ED is more useful in dealing with receptive and productive tasks. Moreover, it also proved to be a better learning tool than the paper dictionary; its use resulted in better retention of meaning and more effective retrieval of collocations. The findings seem to support James-Catalano's [7, c. 31] claim, with which the present paper opens, since the ED turns out to be genuinely helpful in language learning. Such a conclusion appeared to dispel fears of 'a technology that can answer questions so quickly that it may persuade its users that there is no point in memorizing for learning' and blur 'the distinction between information gained and knowledge sought' [12, c. 49-50].

The negative effect of shallow processing of dictionary information, which electronic dictionaries are said to induce and which is believed to result in poor retention of new words, was not justified by the experiment. Unfortunately, consultation time was not measured, but it was evident that the ED group needed less time to complete the tasks than the paper dictionary group. However, the findings from the study can support Laufer and Hill's [8, c. 72] postulate that what matters to word retention is greater attention during the lookup process. Yet, it is possible that the greater attention does not have to be associated with a larger effort, or time, put into dictionary search or the analysis of the information found. Instead, it appears that the visual impact created by the ED and the prominent position of a headword on the computer screen can attract more attention than a printed page. It is possible that the form of presentation on the computer screen is more captivating and less distracting than the view of headwords on a page in a paper dictionary, accounts for the superiority of electronic dictionaries over paper ones in the process of remembering the meaning of new words and learning collocations.

Additional research was conducted by Yu-zhen Chen in the College of Foreign Languages and Cultures of Xiamen University, Fujian, China. Electronic dictionaries, especially pocket ones, are gaining in popularity with an increasing number of EFL learners making an impact on the Chinese dictionary scene which is too

great to ignore. This study compared patterns of use and perceptions of pocket electronic dictionaries (PED) and PDs [2]. It also examined the effects of electronic and paper dictionary use on vocabulary acquisition.

The author proposes the following hypotheses: A) There are differences between ED and PD concerning patterns of dictionary use and dictionary perceptions, i.e. students' evaluation of the usefulness of different dictionary formats and their opinions on the advantages and disadvantages of these two types of dictionaries. Patterns of use refer to how often, when, where, and how students use them in L2 learning and communication. B) Electronic are no better than paper dictionaries in facilitating students' vocabulary acquisition. C) Electronic dictionaries are no more effective than paper on retention of the consulted words measured after a lapse of 7 days. D) It takes less time to complete the same vocabulary exercise PD condition than print dictionary condition. Students' responses to the questionnaire confirmed the validity of hypothesis A. From the experimental study, it can be seen that the effects of two types of dictionaries on new word comprehension and production are not significantly different. Hypothesis B cannot be rejected. The experimental study also found that there is no significant interaction between the retention test scores and groups. All this con-

firmed hypothesis C. It was also found that the time used for task completion by the PD group is significantly shorter than in the pocket dictionary group, which confirms the validity of hypothesis D. So, the study suggests that, despite researchers' and teachers' concerns, EDs can be as effective as PDs for new word acquisition.

It is true that the development of EDs was originally 'inspired by market forces rather than by pedagogical or lexicographical research' [10, c. 842]. Nowadays, the pedagogical potential of ED is too great to be ignored. Studies have provided conclusive evidence for the value of the electronic medium, its advantages like sophisticated searching, unlimited storage capability, speed of search but have hardly begun to explore the potential of this medium to transform the look-up process. Some researchers also express their concern that students may be overdependent on EDs and the study has proved the concerns and it seems inadvisable for students to rely too heavily on EDs while disregarding other resources available. Electronic dictionaries are certainly capable of offering the user choices of source material, search routes, and level of detail [9], yet we still know little of the benefits of different potential options and its influence on L1 and L2 acquisition. An exciting new medium requires creative new approaches to dictionary design to meet the user's needs and demands.

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