

## **ZooLex: The Wildest Corporate Reference Work in Town?**

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### **Abstract**

This article discusses the design, development, and implementation of an Intranet-based corporate reference work at Copenhagen Zoo, Denmark. The article outlines the lexicographic considerations made with particular focus on the provision of a plethora of contextual information in addition to conventional lexicographic data to the employees and the Zoo as a communicative entity. Contextual information is particularly important in order to communicate effectively, and the theoretical considerations are illustrated by means of a number of screen shots from ZooLex ver. 2, which was commissioned and implemented at Copenhagen Zoo in September 2005. ZooLex is a multilingual corporate reference work, which, in addition to conventional lexicographic articles, also features automatic access to a plethora of related contextual information from the Internet, the Zoo's Intranet, official national corpora, and company-specific corpora. ZooLex has special focus on zoological terms in five languages (Danish, English, Swedish, German, and Latin).

### **1 Introduction**

“We are interested in a solution that facilitates our communication efforts and in a solution that is custom-made for Copenhagen Zoo and its employees”, said Ms Anne Huniche from Copenhagen Zoo in April 2005. And this is in fact what corporate lexicography is all about: providing custom-made lexicographic solutions for the benefit of both the company as an economic and communicative entity and its employees on the basis of convergence of theoretical considerations from a number of scientific disciplines. Corporate lexicography so to speak converges corporate communication and lexicography, and ZooLex is specially designed to facilitate, expedite and quality-assure the corporate communication efforts at Copenhagen Zoo. ZooLex, as the corporate dictionary at Copenhagen Zoo is called, features a number of lexicographic solutions designed to help the employee and the Zoo communicate more effectively.

### **2 Lexicographic and Communicative Demands at Copenhagen Zoo**

To identify the lexicographic and communicative demands at Copenhagen Zoo three zoologists, three personal assistants, and a marketing coordinator were subjected to three re-

search interviews, which according to Kvale (1997) may best be described as semi-structured, qualitative open research interviews. The interviews, the lexicographic user profile, and the organizational analysis made it possible to identify the following lexicographic and communicative demands.

First, ZooLex was to facilitate and expedite the lexicographic functions L2 production and L1-L2 translation, which are the two prioritized lexicographic functions in ZooLex (cf. also Tarp 1995 for a detailed discussion of lexicographic functions).

Second, ZooLex was to facilitate the corporate functions lexicographic knowledge creation, lexicographic knowledge transfer, lexicographic knowledge management, and lexicographic quality assurance (cf. Simonsen 2005 for a discussion of communicative functions in lexicographic artefacts in companies).

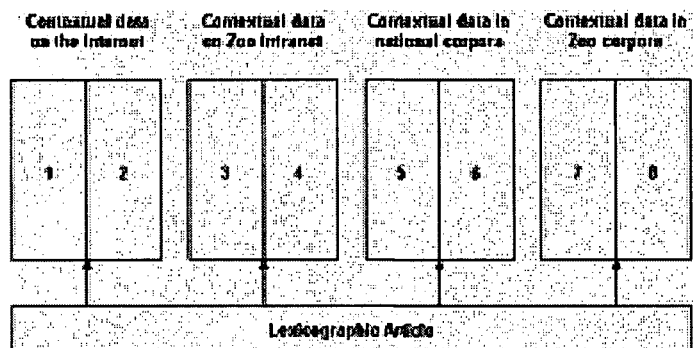
In other words, ZooLex was to facilitate the production and translation of a number of prioritized text types, for example scientific reports, press releases, web texts and annual reports.

### **3 Theoretical Basis**

After having identified the lexicographic and communicative demands it was time to develop the theoretical models upon which major parts of ZooLex were designed and developed.

It was clear right from the start that conventional lexicographic considerations did not suffice, because Copenhagen Zoo was interested in a system that facilitates corporate communication as a whole. Consequently, I quickly decided that ZooLex was to include all conventional lexicographic data types, but in addition to that, I also decided that it should feature additional contextual information in order to effectively support corporate communication efforts.

Consequently, the following theoretical model was developed in order to ensure that the complex of lexicographic and communicative demands was met. As will appear from Figure 1 below, the overriding consideration was to converge a number of different data types in order to support the communicator at Copenhagen Zoo, cf. also Simonsen (2005), which discusses a holistic combination of corporate communication and corporate lexicography. The theoretical model for the convergence of contextual information and lexicographic data could be illustrated as follows:



**Figure 1.** Convergence of Lexicographic Article and Contextual Information

Figure 1 above shows that contextual data are retrieved from Internet searches, from searches on the Copenhagen Zoo Intranet, from searches in two national corpora, and from searches in two specially-compiled Zoo corpora. Figure 1 also shows how a lexicographic article can be converged with other types of data for the benefit of the employees and Copenhagen Zoo as a communicative entity.

#### **4 Presentation and discussion of ZooLex**

So what is ZooLex? Lexicographically, ZooLex can be characterized as an Intranet-based corporate reference work. ZooLex is a polyfunctional reference work and focuses on zoological terms in five languages and is designed with a number of lexicographic and communicative functions in mind (cf. also Tarp 1995 for a discussion of lexicographic functions).

Technically, ZooLex is based on a relational database and a large number of dynamic ASP pages. ZooLex has a modular design with two modules. ZooLexEditor is the input module, which enables the corporate editors to create, edit, and delete lexicographic articles in ZooLex on a real-time basis. ZooLexEditor is based on semi-automatic entry of data on the basis of dependent drop-down lists, which facilitate easy and consistent entry of lexicographic data. ZooLex is the output module, which enables the employees to access lexicographic and contextual data in a variety of ways; however for the purpose of this article only the Danish-English search result window featuring the eight contextual search paths will be discussed. However, ZooLex naturally also includes additional functionalities such as an English-Danish search facility, a trilingual taxonomy-based search facility, and a feedback form to support user involvement (cf. Simonsen 2002, which discusses the principles “Active user involvement” and “Lexicographic democracy”).

On the basis of this introductory presentation of ZooLex, it is now time to take a look at ZooLex and at a typical search operation. Figures 2 and 3 below are screen dumps of the Danish-English Search Window and the Danish-English Search Result Window, respectively.

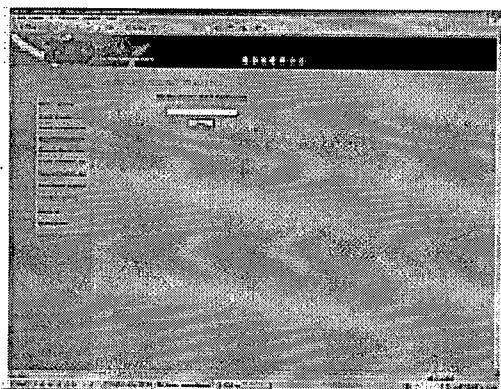


Figure 2. Danish-English Search Window

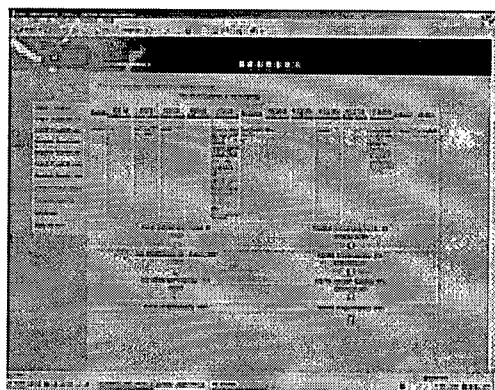


Figure 3. Danish-English Search Result Window

Once the user has typed in a search string in the search field and clicked the search button in Figure 2, the selected lexicographic data are displayed horizontally in the Danish-English Search Result Window as shown in Figure 3 above. The underlying lexicographic function supported in Figures 2 and 3 is L2 production. To support L2 production, ZooLex delivers lexicographic data relevant for L2 production such as part of speech information, morphological information, synonym(s), definition, language usage examples and information on the zoological class and order.

In addition to these conventional types of lexicographic data, ZooLex also enables the user to access a large amount of contextual data to further support the lexicographic functions and communicative functions. The idea is to supplement the static and controlled data in the relational database with dynamic, but to some extent uncontrollable data. The contextual data are provided by performing a simple search from within the actual lexicographic article. The user can perform the following searches, see also Figure 1 above:

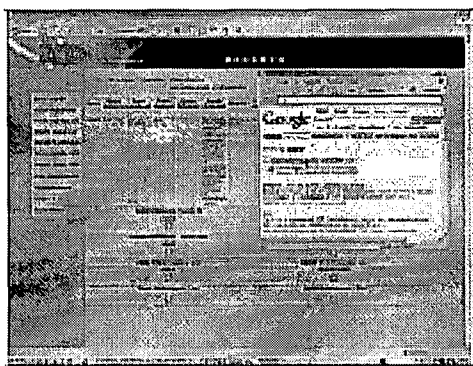
- 1) A semi-automated search on Danish Google for lemma
- 2) A semi-automated search on English Google for equivalent
- 3) A semi-automated search on Danish Zoo server for lemma
- 4) A semi-automated search on English Zoo server for equivalent
- 5) A semi-automated search in Korpus 2000 (National Danish Corpus) for lemma
- 6) A semi-automated search in British National Corpus for equivalent
- 7) A semi-automated search in Danish ZooCorp (corpus with zoological texts) for lemma
- 8) A semi-automated search in English ZooCorp (corpus with zoological texts) for equivalent.

The above eight searches are semi-automated searches, which are manually activated by means of a click on a hyperlink or a hyperlinked icon. ZooLex automatically inserts the lemma and equivalent, respectively, in the two search columns, cf. also Figures 4-7 below. So in addition to the conventional lexicographic data types discussed above, the ZooLex user also

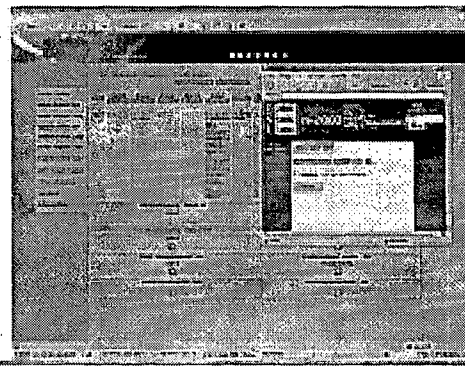
has easy access to relevant documents on the Internet, occurrences in the two national corpora, documents on the Copenhagen Zoo Intranet, and finally occurrences in the two Copenhagen Zoo-specific corpora.

In addition to these contextual searches linked to the lemma and the equivalent, ZooLex also features a universal built-in popup search function, which enables the user to click on any word or string of words in ZooLex and perform an Internet search for the highlighted search string.

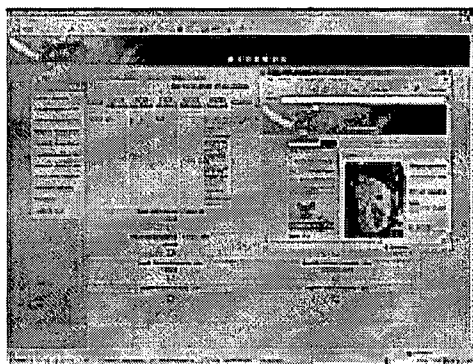
The four screen dumps below illustrate how this was implemented in practice, however only options 1, 3, 5, and 7 have been discussed here.



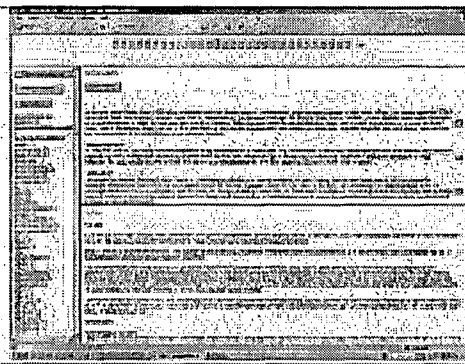
**Figure 4.** Danish Google Search



**Figure 5.** Danish Corpus Search – Korpus 2000



**Figure 6.** Danish Intranet Search



**Figure 7.** Danish Corpus Search – Zoo Corpus

In order to further facilitate effective corporate communication, ZooLex ver. 2 is also prepared for a powerful metadata search function. The metadata search function is based on a specially developed metadata template, which uses some of the metadata categories from the Dublin Core Metadata Initiative, cf. DDCMI (2005) and a large number of elements from the metadata template for use in a CMS-based lexicographic communication tool discussed in

Leroyer & Simonsen (2005). However, as ZooLex ver. 3 is being developed at the time of writing this contribution, the metadata search facility is still not fully functional. Further tagging of Copenhagen Zoo's documents and further IT development are required, but the metadata search function will, once fully implemented, be based on a number of dependent drop-down lists and checkboxes, which, once selected and checked by the user, will perform searches in the lexicographic database and in relevant data repositories for lexical, syntactical and documental information.

This means that the ZooLex user can search for lexicographic articles and large amounts of contextual information, on the basis of the metadata categories defined in the metadata template. If for example the ZooLex user wants to search for lexicographic articles and contextual information on the basis of text type, communication situation, life-cycle, author, etc., he selects the relevant categories in the dependent drop-down lists and checkboxes. These selections in turn trigger a powerful search for lexicographic articles and contextual information provided with the metadata keywords selected. Consequently, the total amount of content delivered by ZooLex can be used to further facilitate corporate communication. Because effective corporate communication is not only a question of lexical items.

## 5 Conclusion

This article offered a discussion of what might be called the wildest corporate reference work in town. The article proposed a theoretical model for automatic convergence of eight different types of contextual information categories and the lexicographic data in the lexicographic article. The relevance of the theoretical model was illustrated in practice by means of screen shots from ZooLex, which showed how contextual information can be semi-automatically converged with the lexicographic article by means of searches for relevant contextual information on the Internet, on the company's Intranet, in national corpora, and in company-specific corpora in both languages. Finally, the article also briefly discussed the theoretical blueprints of a metadata search function. Further research and development will have to show how far the theoretical considerations proposed above can be improved to design even more effective and value-adding communication support systems in companies and organizations.

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