Corporate LSP Intranet Lexicography

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Abstract

In this article, I argue that a dual-focus approach is necessary in corporate LSP Intranet lexicography and that a far more active and holistic user approach is needed. The two primary parties involved in corporate LSP Intranet lexicography are the individual users and the corporation seen as a lexicographic community. Both parties make heavy demands on the lexicographic artifact. Therefore, on the one hand, the individual users cannot and must not be reduced to inarticulate constant factors, and, on the other hand, a constantly changing corporate or organizational environment cannot and must not be regarded as a static implementation site of little lexicographic interest. I also argue that this dual-focus approach and the potential of a corporation's Intranet as a lexicographic medium require new theoretical and conceptual considerations on the development and design of Intranet-based lexicographic reference works. The lexicographic considerations and principles developed during the TeleLex project are discussed, and the article shows how the two lexicographic principles *lexicographic data convergence* and *lexicographic democracy* are implemented in practice by means of a number of selected screenshots from the Intranet-based lexicographic knowledge management system TeleLex.

1 Introduction

The TeleLex project was based on a three-party agreement between TDC A/S[1], the Aarhus School of Business[2] and the Danish Academy of Technical Sciences[3]. The TeleLex project was a Danish Industrial Ph.D. Fellowship Project, and the two primary research objectives of the project were to develop a number of theoretical and conceptual considerations on corporate LSP Intranet lexicography and to develop and design the lexicographic knowledge management system TeleLex.

2 Theoretical Considerations on Corporate LSP Intranet Lexicography

The purpose of the following discussion is to present a number of selected theoretical considerations on corporate LSP Intranet lexicography, which were developed prior to and concurrently with the design of TeleLex at TDC A/S, which is a major Danish-based international telecom operator.

As will appear, the theoretical considerations presented in this contribution are in great demand because up till now there has been a theoretical gap in this particular research field. The considerations and solutions developed are summarized in the form of two overall models, which have formed the theoretical basis of the design and development of the lexicographic knowledge management system TeleLex. Furthermore, as will appear, the two models on corporate LSP Intranet lexicography were used as the basis for the development of 12 application-oriented lexicographic principles, of which the two lexicographic

principles *lexicographic data convergence* and *lexicographic democracy* will be discussed in detail in this contribution, cf. also [Simonsen 2002] for a discussion of all 12 application-oriented lexicographic principles.

The first overall model is based on a dual-focus user approach, which both involves the individual user and the corporation seen as a lexicographic community. The second model is based on a so far unseen holistic understanding of, and approach to, the many elements influencing a lexicographic knowledge management system at a corporation or in an organization.

Figure 1 below illustrates that the design and development of corporate lexicographic knowledge management systems should take into account two equally important and interdependent elements: the individual user and the corporation seen as a lexicographic microcosm. Both parties make heavy demands on the lexicographic artifact and without this dual focus the utility value of the lexicographic artifact is bound to be limited, cf. also [Wiegand 1997], who discusses the "Nutzungswert" of dictionaries.

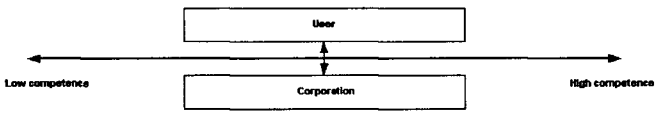

Figure 1:. User and Corporation

Figure 1 above shows that the volatile reality of the corporation heavily affects both the individual user and the lexicographic artifact. Figure 1 also shows that the individual user affects the lexicographic artifact on the basis of his competency profile, which is shown on a continuum from low to high.

Figure 1 thus illustrates that corporate LSP Intranet lexicography is characterized by two important parties, whose lexicographic and non-lexicographic demands must be taken into account. Focus on the individual user's lexicographic needs is not enough, as the needs of the corporation also play a very large role for the design and lexicographic contents of the lexicographic artifact.

On the basis of a number of surveys at TDC A/S I concluded that the lexicographic needs of the individual users are to get access to a Danish-English/English-Danish lexicographic knowledge management system, which has the primary TeleLex functions L2 production, L1-L2 translation, L1 production, L2-L1 translation, L1 reception and L2 reception, cf. also [Tarp 1995] for a detailed discussion of dictionary functions. The surveys conducted at TDC A/S also revealed that the lexicographic and non-lexicographic needs of the corporation are to have a lexicographic knowledge management system, which supports and facilitates the TeleLex functionalities *lexicographic knowledge creation*, *lexicographic knowledge transfer*, *lexicographic knowledge management*, *lexicographic quality assurance* and *lexicographic standardization*, cf. also [Simonsen 2002] for a detailed discussion of these lexicographic functionalities and [Nonaka 1994] for a very useful discussion of organizational knowledge creation. The lexicographic purpose of the TeleLex functionalities

is to facilitate the corporation's efforts to improve internal and external communication with a view to creating and maintaining a satisfactory financial result for the corporation and the shareowners, cf. also [Westergaard 2000] and [Westergaard 2001], who discusses TDC's efforts in this area.

The double focus proposed above naturally calls for an entirely different and far more active user approach and user involvement as briefly discussed in [Simonsen 2000b]. I argue that a far more active user approach and far more comprehensive user involvement are a natural consequence of the new technological frame, cf. also [Bijker 1995], general societal developments, but in particular also of the type of lexicographic environment, in which the lexicographic artifact is designed and implemented. [Hausmann 1989:13] quite eloquently argues that "Benutzerfreundlichkeit bedeutet Anpassung der Lexikographie an die Gesellschaft". I argue that Hausmann's definition of user-friendliness is particularly relevant for this discussion, as adaptation of the lexicographic artifact to the very lexicographic environment in which the lexicographic artifact is designed, developed and implemented is of crucial importance for its survival and user relevance. And adaptation to the lexicographic microcosm TDC A/S, which is a modern and high-tech corporation characterized by a high degree of user involvement in virtually all other areas, was seen as a natural and important factor in the TeleLex project. Consequently, the two lexicographic principles *active user involvement* and *lexicographic democracy*, cf. also [Simonsen 2000a], were developed and used as the basis for the design of the lexicographic artifact TeleLex.

A corporation or an organization should therefore be seen as a small lexicographic microcosm to which the lexicographic artifact must be adapted, and it was therefore only natural to perceive the individual users at TDC A/S as "facilitators and containers of lexicographic knowledge", which by the way is an approach which is very much in line with Nonaka's innovative theories on how organizational knowledge is created, transferred and retained in an organization, cf. [Nonaka 1994].

The theoretical considerations and solutions developed also contained elements from a number of social-constructivist theories to identify the special role and identity which, in my opinion, a lexicographic artifact has at a corporation or in an organization. In this connection, the SCOT model, cf. [Bijker et al. 1987] is particularly suitable, as it convincingly argues for what is referred to as the social construction of a technological artifact. By social construction I mean the "developmental process through which the technological artifact goes and the influence of relevant human and non-human factors and the specific lexicographic environment in which such lexicographic artifact is developed and implemented". Analogously, as TeleLex is seen as a technological artifact, I argue that the lexicographic knowledge management system has been socially constructed by the lexicographic, organizational and technological environment at TDC A/S.

Figure 2 below summarizes some of these theoretical considerations on corporate LSP Intranet lexicography. In other words, Figure 2 shows the importance of the surrounding lexicographic, organizational and technological environment at a corporation or in an organization, just as it shows the dual-focus on the corporation seen as a lexicographic microcosm and the individual user, respectively. Figure 2 also shows the importance of the

social construction of the technological artifact, and the two-way arrows indicate that virtually all elements are interdependent and indispensable factors. In conclusion, Figure 2 summarizes some of the most important theoretical considerations on corporate LSP Intranet lexicography, which should be taken into consideration in connection with the development and design of an Intranet-based lexicographic knowledge management system at a corporation or in an organization.

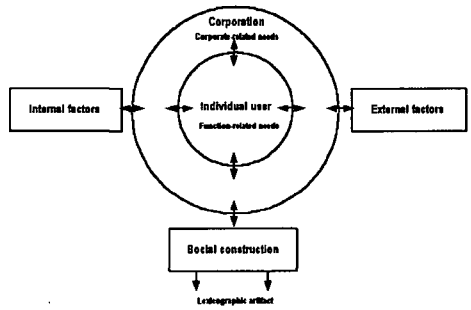

Figure 2:. Model of Corporate LSP Intranet Lexicography

3 TeleLex

The above discussion provides some of the theoretical basis for the development and design of TeleLex, and the following discussion presents a number of selected conceptual considerations on an Intranet-based lexicographic knowledge management system with emphasis on the two application-oriented lexicographic principles *lexicographic data convergence* and *lexicographic democracy*.

The IT-related and metalexicographic development process was based on a constant interplay between theory and practice, and the methods used in connection with the development of TeleLex included the waterfall, prototyping and spiral methods. This methodical approach was particularly suitable for the theoretical and IT-related development, as preliminary versions of TeleLex provided a constantly increasing theoretical and practical insight and understanding just as the iterative incremental development process resulted in a gradually more and more complete version of TeleLex to the benefit of all parties.

TeleLex can be characterized as an Intranet-based corporate Danish-English/English-Danish convergence lexinome with special emphasis on telecommunications terminology. TeleLex is fully operational at TDC's Intranet and is used by TDC's employees as a corporate lexicographic knowledge management system, and, as already discussed above, TeleLex was specifically designed to meet the lexicographic and non-lexicographic needs of the individual user and the corporation, respectively. In addition to conventional function-related purposes, TeleLex is designed to meet TDC's functionality-related lexicographic needs for a system which supports and facilitates *lexicographic knowledge creation*, *lexicographic knowledge transfer* and *lexicographic knowledge management*, cf. [Nonaka 1994] and

[Wessel 2001], who makes a convincing case for increased focus on managing a corporation's LSP communication.

TeleLex consists of two overall modules - an Intranet-based data display module called TelePresentor and an Intranet-based lexicographic data-editing module called TeleEditor. The overall distribution architecture in TeleLex is shown in Figure 3 below.

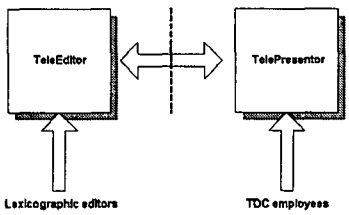

Figure 3:. Overall Distribution Architecture in TeleLex

The entire system is called TeleLex, and a large number of selected TeleLex windows are shown in Appendix.

TeleLex is a fully operational lexicographic knowledge management system and contained 3,100 lemmata at the time of submission of this contribution, but the lemma stock is increasing dynamically in line with the lexicographic needs of the two lexicographic parties at hand. TeleLex features the following overall components, which are shown in Figures 6-16 in Appendix: **TeleLex Start Window, Danish-English Search Window, English-Danish Search Window, Danish Grammar Window, English Grammar Window, User Feedback Window, User Forum Window, Information Window, Links Window, Language Policy Window** and **TeleEditor Start Window**, cf. also [Simonsen 2002] for a detailed discussion of the theoretical, conceptual and IT-related considerations on the design and development of TeleLex.

However, this contribution only focuses on the two lexicographic principles *lexicographic data convergence* and *lexicographic democracy*, cf. also [Simonsen 2002].

The principle of *lexicographic data convergence* was developed in order to satisfy the complex of lexicographic needs of the individual user and the corporation, respectively. As will appear from Figure 4 below the underlying convergence distribution architecture in TeleLex ensures easy access to a wide variety of lexicographic and non-lexicographic data sources, a mix that facilitates both optimum lexicographic quality and optimum lexicographic topicality. Figure 4 shows that the TeleLex user has access to static lexicographic data from a conventional SQL database, dynamic lexicographic data in the two parallel corpora DANCORP and USCORP (15m and 45m running words, respectively), dynamic lexicographic data from the TDC Intranet and finally dynamic lexicographic data from the Internet. In conclusion, the principle of *lexicographic data convergence* ensures that the user has easy access to an optimum mix of static (controllable) and dynamic

(uncontrollable) lexicographic data, and the principle successfully supports both text-dependent and text-independent lexicographic functions, cf. [Bergenholtz/Kaufmann 1997].

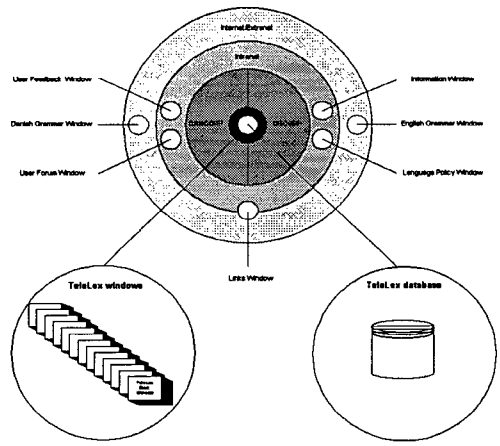

Figure 4:. Convergence Distribution Architecture in TeleLex

The principle of *lexicographic data convergence* was implemented in TeleLex and appears from Figures 17-19 in Appendix. Figures 17-19 show that the lexicographic article in TeleLex consists of four optional modules, see also Figure 7 from which it appears that the TeleLex user can customize the TeleLex article in accordance with his competency profile and lexicographic task in question (lexicographic function). As will appear from Figure 19 the user can perform automated searches in Danish and English after the lemma or equivalent, respectively, in the two corpora, the TDC Intranet and the Internet.

The principle of *lexicographic democracy* is based on the idea that expert users should be perceived as facilitators and containers of lexicographic knowledge. In other words, the TDC employees also play an important role in the compilation of lexicographic articles in TeleLex, something which is only natural for members of a knowledge society and for employees in a highly specialized field such as telecommunications. As will appear from Figure 11 *lexicographic democracy*, which is also referred to as lexicographic demand registration, is successfully facilitated by the User Feedback Window. See also Figure 5 below, which shows the underlying lexicographic decision flow chart, which ensures that lexicographic data of inferior quality are not automatically stored in the TeleLex database, cf. [Carr 1997], who refers to such an approach as "bottom-up lexicography".

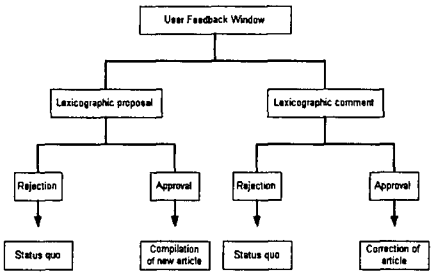

Figure 5: Lexicographic Decision Flow Chart

The principle of *lexicographic democracy*, or lexicographic demand registration, was implemented in TeleLex and appears from Figures 20-21. Figure 20 shows the Proposal Window, which was designed to facilitate submission of lexicographic proposals for new lemmata in TeleLex. Figure 21 shows the Comment Window, which was designed to facilitate submission of lexicographic comments to existing lemmata in TeleLex.

4 Conclusion

This contribution presented a number of theoretical considerations on Intranet-based corporate LSP Intranet lexicography. The importance of a dual focus on the corporation as a lexicographic microcosm and on the individual user was demonstrated, just as the importance of the social construction of the lexicographic artifact was discussed.

I also argued that the lexicographic, organizational and technical environment, in which a Intranet-based lexicographic knowledge management system is embedded, in fact requires a far more active approach to the lexicographic parties.

The contribution also included a number of conceptual considerations on TeleLex, which is a fully operational Intranet-based lexicographic knowledge management system at TDC A/S, and the two application-oriented lexicographic principles *lexicographic data convergence* and *lexicographic democracy* were discussed. The relevance and applicability of the theoretical considerations and lexicographic principles developed were discussed by means of a selection of TeleLex windows, and it was demonstrated that TeleLex is designed so as to satisfy the lexicographic needs of both the individual users and the corporation.

5 References

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Appendix

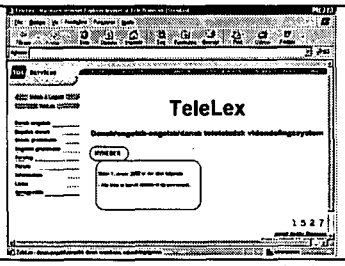

Figure 6. TeleLex Start Window

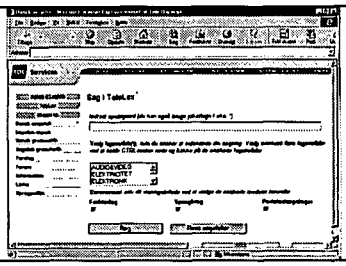

Figure 7. Danish-English Search Window

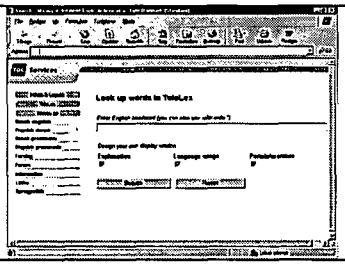

Figure 8. English-Danish Search Window

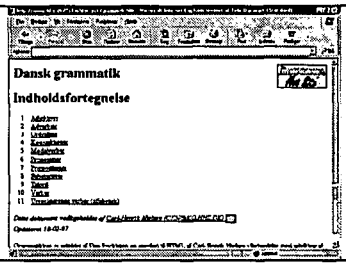

Figure 9. Danish Grammar Window

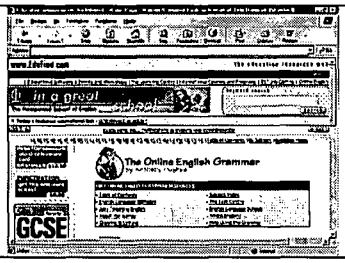

Figure 10. English Grammar Window

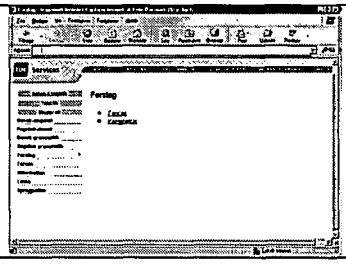

Figure 11. User Feedback Window

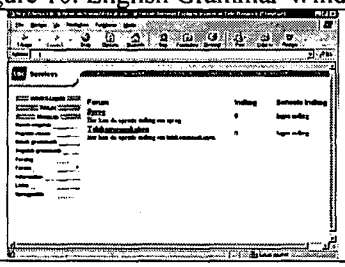

Figure 12. User Forum Window

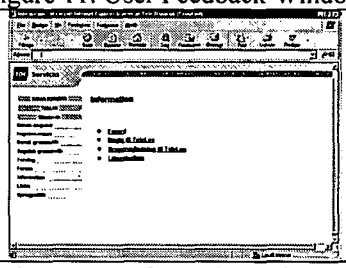

Figure 13. Information Window

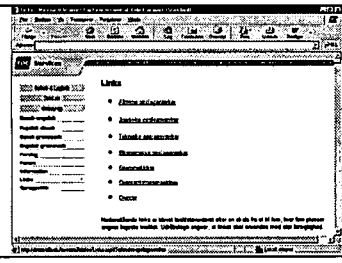

Figure 14. Links Window

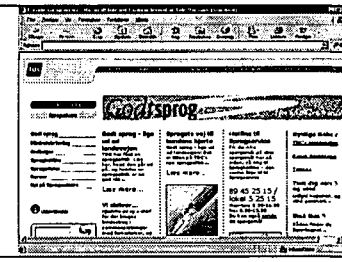

Figure 15. Language Policy Window

Figure 16. TeleEditor Start Window

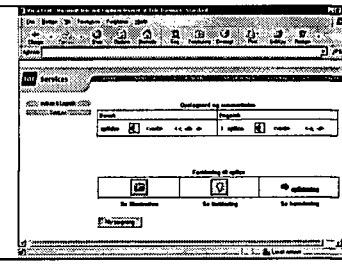

Figure 17. Danish-English Article Window - M1+M2

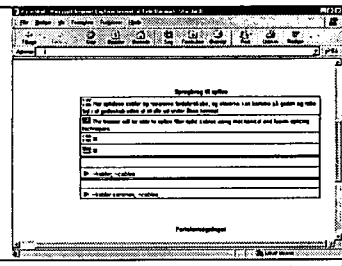

Figure 18. Danish-English Article Window - M3

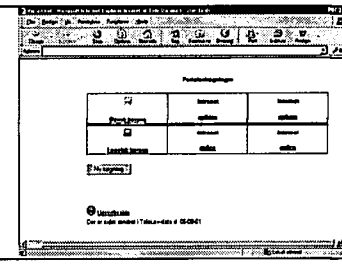

Figure 19. Danish-English Article Window - M4

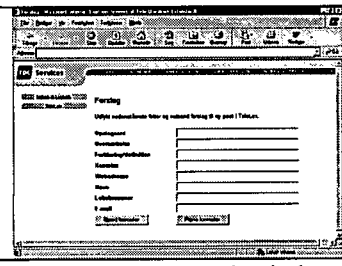

Figure 20. Proposal Window

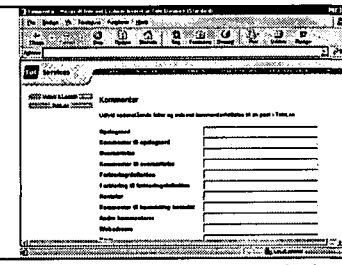

Figure 21. Comment Window

Endnotes

[1] www.tdc.dk
[2] www.asb.dk
[3] www.atv.dk