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From Information to Action. The WWW in the Service of Terminology Research and Work

1. Introduction

Before the age of Internet Eugen Wüster (1970: 143) was convinced that there soon would appear on the horizon, a *fata morgana* of computers that contained all terms and a dream of a global "*Blitzwörterbuch*" that could be accessed from every corner of the world would come true. With the modern communication technology this has become a reality. Specially the World Wide Web makes possible even more than what Wüster ever predicted.

This paper contrasts the traditional means with the WWW covering the terminological information and documentation and other more dynamic and interactive terminological activities.

2. Information and Documentation

Documentation has been one of the central activities in the field of terminology. Terminological documents and data on individual concepts and terminologies as well as data on terminological organisations, events, experts, data banks has been traditionally collected, stored and disseminated by using printed publications like dictionaries, bibliographies, newsletters, periodicals etc. (Felber 1984: 334) The information given in a book or even in a newsletter may often be out of date when it reaches those who need it (if it ever does).

Since the sixties information technology has been utilised for storing and retrieval of terminological data in term banks with access for personnel or paying members or clients. Information about terminological activities has mostly been distributed only as printed publications. Periodicals like *TermNet News* are an example of this kind of media. The introduction of the Gopher and the news systems and later the Web made it possible to make the information more easily available. During the last 12 months, the Web has finally become really interesting information source also from the terminological point of view. There is a lot of information from any imaginable field - and not only in English any more. The Web can thus be used as a source for searching information about concepts and terms from whole texts or online vocabularies. Here I am not, however, interested in using the Web as a whole text corpora, only for analysed and organised terminological information. There are already both theoretical articles and results of terminographical work in the Web. What interests me in this case is thus the utilisation of the Web as a tool for storing and distributing terminological information and documents we have produced ourselves.

In order to analyse the terminological documentation found in the Web I divide it in *primary*, *secondary* and *tertiary* sources according to the traditional documentation praxis, even though the borders are not always easy to draw or have totally disappeared. (Cf. Arntz & Picht 1989: 276; Felber 1984: 341.)

2.1 Primary Sources

Primary sources consist of online texts (e.g. like articles about terminological research and methods), terminological data bases and glossaries and tools for terminological work and research (e.g. downloadable software). At the moment there are some articles or longer texts dealing with terminological research or terminology work available in the Internet. The problems to be solved are e.g. those of copy-right and finance. Publishing in the Web differs in many ways from the traditional publishing. It is not only faster but also uncontrolled. The information seeker must himself evaluate the quality and origin of the discovered information. From the scientific point of view articles published in the Web may not yet have the same value as the printed ones and do not give any merit to the author. There are however e.g. summaries of dissertations online (e.g. Sandrini¹ and Nuopponen²) and scientific articles that are published also e.g. in printed form in conference proceedings or periodicals.³

As to the online vocabularies, the situation is some what different. There are plenty of general language dictionaries but the amount of special language glossaries and vocabularies is growing even more rapidly. Both individual and co-operative efforts are made to publish online special language vocabularies. The online lexicographical and terminological products differ immensely in quality from each others and specially from printed ones. They may be simple lists of terms and definitions or equivalents or thematic multimedia vocabularies.⁴ The Web seems to have made the so called *hidden* glossaries easily available, e.g. product and company specific glossaries. Companies are more and more starting to provide glossaries of the central terminology together with the product descriptions in the Web. A glossary gives an added value also to the company's or association's home page.

In printed technical or other specialised vocabularies drawings, pictures, figures etc. have always been an essential component, because they can replace long definitions. In the Web it is possible to utilise in addition all these also sound, animation and video, but at the moment there are not yet many multimedial data bases. As examples could be mentioned BioTech's dictionary⁵ and *Illustrated Glossary of Geologic Terms*⁶ that try to utilise the possibility of linking pictures to the entries. Multimedia is specially valuable for sign language dictionaries because it enables to show the necessary body language and facial expressions (e.g. movements of eyebrows). An

¹ <http://info.uibk.ac.at/c/c6/c613/psand.html>

² <http://www.uwasa.fi/~atn/research/>

³ See more: <http://www.uwasa.fi/termino/library.html>

⁴ See <http://www.uwasa.fi/termino/collect/> (or <http://www.uwasa.fi/comm/termino/collect/>)

⁵ BioTech: Biotechnology Dictionary: <http://biotech.chem.indiana.edu/pages/dictionary.html>.

⁶ Illustrated Glossary of Geologic Terms: http://www.public.iastate.edu/~geology_100/glossary.html.

interesting project is the *German Sign Language Dictionary on Psychology* compiled by Sign Language Research Center at University of Hamburg⁷.

2.2. Secondary and tertiary sources

Secondary and tertiary sources collect information on the primary sources, e.g. terminological literature and vocabularies and are often published as printed bibliographies and directories. For instance, TermNet publishes a series of international bibliographies and directories on data interesting for terminology work and research (e.g. information about terminological papers and books, periodicals, theses and dissertations, standards, vocabularies, dictionaries, bibliographies and catalogues, world guide to terminological activities and who's who in terminology).

In the Web there are already smaller or larger collections of this kind of information. As an example could be mentioned Sandrini's terminological bibliography⁸ and his list of terminological thesis written in the Austrian universities⁹. There are also lists of printed vocabularies from different fields, e.g. Dykes Library at the University of Kansas has a list of medical dictionaries in its *Online Medical Reference System*¹⁰. The *International Organization for Standardization* (ISO) has lists of its publications in the Web including both vocabularies and guidelines.

In addition to the bibliographies of printed vocabularies, there are also several lists of online vocabularies, dictionaries and data bases. One of them is *Terminology Collection*¹¹ a collection of links that I have been compiling since the beginning of 1995. This collection includes links to special language and general language vocabularies that are freely available in the Web. Directories and link collections like this may remind conventional bibliographies but the entries function not only as bibliographical facts but lead directly to the data base concerned. The Web gives an excellent possibility for frequent updates and immediate publishing. From the link collectors point of view the situation is sometimes frustrating because the addresses are changing quite often for one or another reason.

Another collection of information in the Web that I have been compiling parallel with the Terminology Collection is the *Terminology Forum*. It represents an equivalent to the printed *World guide to terminological activities* (Krommer-Benz 1985) and contains information about different kinds of terminological activities, organisations, education as well as literature and mailing lists world wide. Even though the resources to maintain this service are very limited the feedback that I have received has proved that the Web is a perfect place for directories like *Who's who in terminology*, *Directory of terminological meetings* and *World guide to terminological activities* etc.

⁷ German Sign Language Dictionary on Psychology:

<http://www.sign-lang.uni-hamburg.de/english.html>

⁸ <http://starwww.uibk.ac.at/dolm/termnit.html>

⁹ <http://info.uibk.ac.at/c/c6/c613/terminology/terminology.html>

¹⁰ Dykes Library Online Medical Reference System, University of Kansas:

<http://www.kumc.edu/service/dykes/refassist/refhome.html>

¹¹ Termino Collection: <http://www.uwasa.fi/termino/collect>

A similar information server concentrating mostly on terminological information in the French speaking world is that of the research centre TERMISTI at Institut supérieur de traducteurs et interprètes (ISTI, Bruxelles)¹².

3. Terminological Activities

In addition to distributing information the Web can be used to co-ordinate, co-operate or conduct the activity itself, e.g. a project, a course, a conference, information service, etc. In the following I shall give some examples of this more dynamic side of the Web.

3.1 Co-ordination and Information Services

The need for international co-operation networks have been recognised early on in the field of terminology. Already in the turn of the century some fields, e.g. electrotechnics, started to develop their terminology in a world-wide co-operation. *Infoterm* and *TermNet* are examples of the international networking activities. The Web together with mailing-lists and other Internet tools could offer an infrastructure co-operation and networking. The problem still nowadays is the lack of access to the information networks, e.g. the above mentioned *TermNet*¹³ and *Infoterm*¹⁴ do not have their own home pages yet. At the moment there are information pages for them as well as for some other co-ordination organisations like *Realiter (Red Panlatina de Terminología)*¹⁵, *RITerm (Red Iberoamericana de Terminología)*¹⁶, *Le Rint -Réseau international de néologie et de terminologi*¹⁷ and *NORDTERM*¹⁸, but these pages can be compared to brochures.

Information servers like Terminology Forum, the information pages for terminology at the University of Innsbruck or at TERMISTI are established and maintained by either individuals or institutions at the universities. The next step would be to network all these efforts and to co-operate. There are at least plans for a couple of projects that aim to join efforts in collecting information on terminological data and activities and distribute it via the Web.

The first Web project is a global *TermWeb* project 1996 by *the Association of Terminology and Knowledge Transfer*. During the Fourth International Congress on Terminology and Knowledge Engineering TKE '96, held in Vienna in August it emerged clearly that the Internet in general and the Web in particular should play a significant role for providers and users of terminology as well as for the terminology research community. The *TermWeb* project was established in order to avoid

¹² TERMISTI: <http://www.refer.fr/termisti/termisti.htm>

¹³ TermNet: <http://www.fh-koeln.de/fb-spr/su/termnet.htm>

¹⁴ Infoterm: <http://www.fh-koeln.de/fb-spr/su/info.htm>

¹⁵ Realiter: <http://www.iula.upf.es/cpt/cptit.html>

¹⁶ RITerm: <http://www.iula.upf.es/riterm/riterm.html>

¹⁷ Le Rint: <http://www.olf.gouv.qc.ca/techno/pages/f08.html>

¹⁸ NORDTERM: <http://www.uwasa.fi/comm/termino/nordterm/nordterm.html>

duplication of work and to co-ordinate information gathering activities on the Web. It should join the forces of those who manage existing terminology relevant Web sites or are planning to set them up, making access to information easier. Interested persons should contact: anita.nuopponen@uwasa.fi or peter.sandrini@uibk.ac.at. In the beginning the TermWeb is based on the Terminology Forum maintained by me as well as the terminological information pages provided by Peter Sandrini at the University of Innsbruck but will receive it's own home page and own structure when the those who are interested to join the project have designed it.

The second project is *ETIS - European Terminology Information Server* that aims to "establish a communications infrastructure which allows terminologists to promote their activities, products, services to a wider audience. The intention is to explore and exploit the global information superhighway for promoting, consolidating and expanding the role of terminology and terminologists." ETIS is Europe oriented and it is planned to "have 'editors' from each of the EU/EFTA countries, initially voluntarily, together with representatives from transnational organisations. There is a prototype prepared by Krushid Ahmad running for discussion purposes at the University of Surrey. (e-mail: Jones 2.10.1996)

As to the terminology centres, the Web can bring many new possibilities to give services restricted only to their members and other interest groups if they so wish by using e.g. passwords. Internet does not exclude anymore commerce and this opens many new possibilities for those who sell terminological services. Journals and newsletters can be published electronically with a free or a password access. Publications and different kind of services (e.g. term banks) can be advertised and sold online. A good example is the page of *The Swedish Centre for Technical Terminology* (TNC) that has not only information about the TNC dictionaries and the TERMDOK CD-ROM database but also forms to order these by e-mail¹⁹. Recruiting new members can also be done by telling about the membership benefits like TNC does.

Of the national language centres could be mentioned *the Research Institute for the Languages of Finland*²⁰ and specially it's department for Swedish language that has published short vocabularies from several fields on its Web pages²¹. These vocabularies are originally published in the department's newsletter *Språkbruk*. In Switzerland *Les services linguistiques centraux de l'administration fédérale suisse* provides useful information for its own translators on its functioning Web pages²².

3.2 Terminology Work

¹⁹ TNC: <http://www.tnc.se/>

²⁰ The Research Institute for the Languages of Finland: <http://kktk03.domlang.fi/>

²¹ <http://kktk03.domlang.fi/svenska/svehems.html>

²² Les services linguistiques centraux de l'administration fédérale suisse:
<http://www.admin.ch/ch/f/bk/sp/>

For terminology projects the Web can function as a collaborative forum where each of the partners take care of their section of the distributed Web site. It can be used to give up-to-date information about the participants and the progress of the project, to discuss, and to keep track of the different stages of the documents, to test and give feedback etc. Rules, principles, philosophy and theoretical background of the project can be explained in the Web pages, see e.g. GALEN, a project developing clinical health information systems including a terminology system²³. Proposals etc. can be submitted for discussion.

The Internet and specially the Web gives an opportunity for the individual subject field specialists, researchers, translators, LSP teachers, technical communicators etc. outside the organisations to participate in a voluntary co-operation. Projects like LOGOS²⁴ and *Free On-Line Dictionary of Computing* (FOLDOC)²⁵ are freely accessible databases based on a voluntary compiling work. (LOGOS is a multilingual dictionary updated and corrected by a network of professional translators meanwhile FOLDOC is a monolingual English definition data base compiled by 600 volunteers with a good knowledge of computing.)

3.3 Conferences and Education

As to the education, there are already courses and virtual colleges in many fields in the Web that could be used as models for terminological education and training, too. Common courses or parts of courses could be carried out by using mailing-lists and other facilities of the Internet in addition to the Web.

For organisers of conferences and meetings the Web could mean e.g. less postage and printing costs because the call for papers, programme, abstracts and other information can be distributed through the Web to those who have the access to the Internet. Afterwards maybe the whole articles will be published online. A direct medium for terminological conference information is a mailing-list called *Term-List* (term-list@uwas.a.fi) that reaches quite a lot of people interested in practical and theoretical terminological activities.

4. Conclusion

As an conclusion I would like to say that the Web could form an ideal platform for various kinds of terminological activities. The Web is not only an online archive or storage for electronic documents or a world-wide bibliography, encyclopaedia or data base of terminological and terminographical information but it could play an important role as an interactive collaborative communication tool in terminological research, terminographical projects, as well as in education.

²³ GALEN: <http://www.cs.man.ac.uk/mig/galen/index.html>

²⁴ LOGOS: <http://www.logos.it/query.html>

²⁵ FOLDOC: <http://wombat.doc.ic.ac.uk/foldoc/editing.html>

Nuopponen, Anita (1996). From Information to Action. The WWW in the Service of Terminology Research and Work.. I: *Fagsprogsforskningen i Norden. Netværk LSP SSP Nyhedsbrev*, 1-6. Handelshøjskolen i Århus, Denmark.

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Although some critical voices are heard about the bandwagon effect, vanity, etc., I think it is not in vain to be "present" in the Web. It is useful to have even a short information page in the Web with at least contact addresses and a short description about the activities. This gives some information for those who are looking for similar interests and may lead to co-operation. More easily available information can thus bring together people, institutions, organisations and project groups to join their forces for the common purposes or just to prevent overlapping work.

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Notes

Note: For several reasons some of the links may not be functioning any more. These and many more links to terminologically interesting sites can be found in the Terminology Forum and Collection (<http://www.uwasa.fi/termino/>). In the both collections the links are updated now and then.

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