# Who's Afraid of CAT? Redefining the boundaries of translation

Janet Carter-Sigglow

Zentralbibliothek - Sprachendienst

Forschungszentrum Jülich GmbH

52425 Jülich

Germany

j.carter-sigglow@fz-juelich.de

# Summary

Three areas are identified in which computer-assisted translation (CAT), in the sense of a terminology database, a translator's workbench and electronic dictionaries, has influenced our work at the Language Service of Research Centre Jülich, Germany. The first is the desire expressed by scientists familiar with our translation services to have access to our inhouse terminology. The second is our interaction with the other services provided by our organizational unit, the Central Library, which has made us aware of the benefits of online electronic publications. The third component is the opportunities open to translators for making wider use of their language skills. These three aspects will be discussed against the background of the scientific work at the Research Centre and the key role played by translation in the dissemination of knowledge in the sense of a case study from the perspective of the working translator.

# Background

The motivation for this contribution arose from the widening scope of work at our Language Service. Situated on the borders with Belgium and the Netherlands, the Research Centre is the largest interdisciplinary research establishment in Europe with a staff of 4300, including nearly 1300 research scientists. The main fields of research can be summarized under the five headings of matter, energy, information, life and environment. Our work mainly comprises the translation of scientific papers from German into English for publication in learned journals and, also increasingly, the linguistic revision and polishing of such articles.

Although we are a German national research institution, and a member of the Helmholtz Association of National Research Centres, the working language of our scientific endeavours is overwhelmingly English. Translations into German are rarely required. In the course of the

<sup>&</sup>lt;sup>1</sup> For more information on Research Centre Jülich (also in English) visit our homepage at http://www.fz-juelich.de/portal/

last twenty-five years, researchers at Jülich have increasingly chosen to write their papers in English. This development is influenced by the growing trend towards international scientific collaborations, and the significant numbers of visiting scientists coming to Jülich each year (about 800 from more than 50 different countries). The influence of science funding by the European Union is also felt. On a political level, the aim of the EU is for all citizens to have access to information in their native language, but at the level of scientific cooperation the lingua franca is English and applications for funding are usually made in this language, as a rule by a consortium of scientific institutions from a number of EU countries.

The Language Service is organizationally part of the Central Library at the Research Centre and we thus have the opportunity to cooperate closely with information professionals. This collaboration has opened our eyes to the electronic information resources available to translators and the professional way to exploit them, and has even influenced the way we approach our translation work.

In such an environment, we have naturally not remained untouched by developments in computer-assisted translation and TRADOS MultiTerm terminology management<sup>2</sup> was introduced eight years ago so that our database has now grown to roughly 35,000 entries. Nearly four years ago we then acquired the TRADOS Translator's Workbench. In addition, at a very early point we realized the potential offered to translators by the Internet, as demonstrated by the presentation I gave here at the ASLIB Conference in 1999.<sup>3</sup>

In this context, it is not surprising that we should turn to electronic support since we are a very small group (two translators and one bilingual secretary) in a very large research institution with an enormous demand for high-quality translations. This background not only determines the nature of the texts we translate but also has a significant impact on the way we translate them. The context of our translation work must therefore always be kept in mind when considering the practical implementation of CAT tools at Research Centre Jülich.

## 1 Introduction

Obviously, at Research Centre Jülich we are not afraid of computer-aided translation, but the introduction of electronic tools has meant that we have had to modify our time-honoured routines. We have not only had to learn how to use new tools but also to become receptive to

 <sup>&</sup>lt;sup>2</sup> TRADOS http://www.trados.com
 <sup>3</sup> "The Internet and the Single Translator", Translating and the Computer 21, Proceedings from the Aslib conference held on 10 & 11 November 1999

new influences. The leap in the dark is more than just learning how to use a new medium, it requires a new mindset to obtain the full range of benefits. This presentation is therefore designed to ask questions, not to provide answers. We see important opportunities for applying our electronic tools so that they are of direct benefit to our colleagues at the Research Centre, not only indirectly in that we use them to produce translations. But since we are such a small department we need assistance in exploiting the opportunities we have identified.

Writing in my capacity as a user of electronic translation aids, I feel that translators have now achieved a certain maturity in applying computer-assisted translation tools, not only in the technical sense of using them with confidence, but also by developing a critical awareness of their benefits. It is my contention that these tools influence the nature of translation work and also enable translators to undertake language tasks they would not previously have considered.

Taking examples from our working environment at Research Centre Jülich, I shall discuss the reciprocal influence of computer-based translation and the scope of translation tasks. I regard the Aslib Conference as an ideal forum for exchanging experience with other translators and also software developers so that new developments are not just a one-way street from developers to users. As translators our aim is the excellence of our products, i.e. the translations, and their fitness for their intended purpose. The special feature at Jülich is our close cooperation with the authors of the papers we translate or correct. After the text has been translated or edited it is frequently modified in a discussion process with the author so that, in part, it ceases to be a translation as such. This cooperation makes us aware of the function of the translator as an intermediary transporting information from one language to another and also further integrates us with the information professionals at work in the Central Library.

This is a paper about ideas not experimental results, and in my discussion, I intend to be guided by the following quotation from a Sunday broadsheet: "You need hermeneutic competence in order to make meaningful use of the Internet, ..." I feel this applies not only to the Internet but to all our electronic tools, and I take "hermeneutic" to mean interpreting, bridge-building, bringing people together across languages and cultures. As translators we should not lose sight of the fact that we provide the added value in the translation task. I personally see no contradiction in eagerly grasping all the advantages offered by computer support while bearing in mind that we help people to communicate not machines.

<sup>&</sup>lt;sup>4</sup> "Um das Internet sinnvoll zu nutzen, erfordert es hermeneutische Kompetenz:..." "Die Medicis des 21. Jahrhunderts" by Adriano Sack in Welt am Sonntag, 18 April 2004

## 2 The Jewel in the Crown

Our MultiTerm database comprises almost 35,000 entries, mainly based on feedback from scientists at the Research Centre and increasingly also on Internet sources. We are our own terminologists and the entries reflect our needs with respect to choice and structure of vocabulary. Creation of the database has to be done while we are translating and the fact that it is so comprehensive is in large part due to Ms Margret Heinz, Diplom-Übersetzerin, without whose terminological skill and extensive translation experience the database would not have its present value.

Since we collaborate closely with the authors of the texts to be translated our MultiTerm database has not remained a secret at the Research Centre and the desire to gain access to this treasure trove has frequently been expressed. Interest among the scientists is all the keener since they may prefer to write their papers in English and thus require cutting-edge terminology in a wide range of fields.

This could perhaps give us cause for concern that we would be putting ourselves out of a job if scientists could access our terminology. However, since we are to no small extent dependent on feedback from these same researchers to maintain the value of our database we are obviously interested in cooperating with our scientific colleagues. Also experience has shown that the revision of scientific work means more work for translators not less, although with a slightly different focus.

To this extent, our terminological and translation work represents a symbiosis with the authors of the texts, and our electronic tools not only help us in our translation but also enable us to offer our colleagues an additional service. We are not afraid that CAT might lose us custom, on the contrary, in principle we are not opposed to sharing the fruits of our labours. The question that concerns us is how it is to be done, given our special situation of a scientific environment that encourages a free exchange of information without rigid boundary conditions being imposed by central management, as might be the case in a commercial enterprise. We are the central Translation Service of the Research Centre, but there is no obligation for colleagues to use our services nor do we have any power to impose "corporate terminology". Current scientific usage dictates the choice of term, not company policy. This naturally leads to different departments, or indeed different individuals, using different expressions and our terminology database reflects this situation.

## 2.1 Technical feasibility

With the new TRADOS software suite (Version 6.5) it seems at least technically possible to make our terminology available in-house on our intranet or on the Internet without creating a one-off system. It is to be expected that this new software will encourage small groups of translators (such as ourselves), who would not otherwise have the technical resources or expertise, to make use of a standard TRADOS product.

MultiTerm Online Server is the name of the game. Quite apart from the cost, which is, of course, always relative to the benefit<sup>5</sup>, it sounds like the answer to our prayer:

## "Central control, local availability

With Online Server, you can maintain central control and maintenance of your termbases while providing full availability to users across the organisation. Using a standard web browser, all users can gain easy access to the contents of any MultiTerm termbase while selected users can be given rights to work on the termbases for update, editing and maintenance purposes."

This is just what the doctor ordered, we stay in control and our colleagues have read-only access. The version of the TRADOS software suite we currently use has proved adequate for our needs as translators, but if we purchase the new version we would naturally like to exploit its full potential including the option of read-only access to our database via our intranet.

We are, however, fundamentally a translation department and not a supplier of terminology to the Research Centre. The new software would enable us to provide a valuable service as a spin-off from our everyday work. However, in order to do so we need professional help with the most appropriate presentation of terminology for non-specialists, i.e. scientists who wish to write papers in English but who are not translators.

If we invest the not inconsiderable costs required for the new technology we need to exploit all its functions in order to be cost-effective. The new opportunities thus place a heavy burden on working translators, especially in a small department like ours with a big mission. We are certainly not afraid of CAT, but we need support to live up to the new expectations aroused in our customers/colleagues. This is why the attention of software developers needs to be drawn to the problems of those working at the coalface.

<sup>&</sup>lt;sup>5</sup> Cost is by no means a trivial issue and a colleague from a commercial enterprise has reported that it can be prohibitive. However, I am concerned here with the possibilities offered by the technology to the *translator*. <sup>6</sup> TRADOS product information 2003

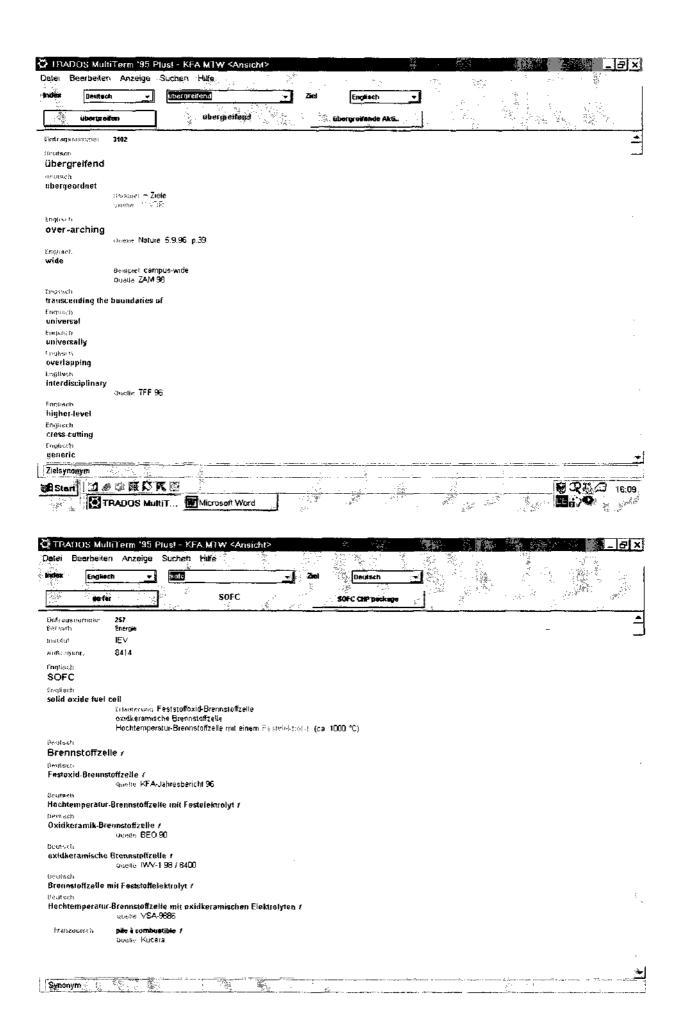
### 2.2 Our database

Our terminology is a rough diamond which could be of immeasurable benefit to the Research Centre since science must communicate and the language of science is English. However, this particular diamond needs a good deal of cutting and polishing. It may be serviceable enough for us, but not for the uninitiated. The very flexibility of the TRADOS system can prove confusing for nontranslators. Figure 1 a) and b) gives examples of our terminology in the raw. I have chosen one very general and one very specialized term to illustrate the way our database functions. Professional terminologists will gasp in horror, but it will undoubtedly strike a chord with working translators. The examples illustrate how we use our terminology for work-in-progress. "Übergreifend" is flavour of the month in Germany and it is incredibly difficult to translate meaningfully so we add any good suggestions we find in our work leading to this unstructured (and unstructurable?) entry.

In contrast to the very general entry, our database does of course also include very specialized terms from the research areas dealt with at Jülich. For example, when our scientists write "fuel cell" they usually, but not always, mean the "solid oxide fuel cell" which is the focus of research work here. Something with a number of names in German can therefore become something very specific in English at Research Centre Jülich. This also illustrates my earlier comment that our terminology is tailored to the requirements of the individual institutes and always needs to be read in context.

Our problem is presenting our terminology in a way that will save us effort and not cause more work when colleagues ring up and ask us to explain an entry. I feel this is an aspect not adequately dealt with in the TRADOS product information perhaps because the authors did not envisage a working environment like ours involving face-to-face contact with the translation users. We are familiar with the benefits of these electronic tools for translators, what we need is practical support from terminologists experienced in working with MultiTerm to help us manage our database for non-translators.

Figure 1a) and 1b): Screenshots of "übergreifend" and "SOFC"



In short, technology suppliers should not lose sight of the people who actually use their products and who advise their companies/institutions on whether to purchase the software. We would certainly be interested in such skilled support to help us exploit our added value and this would also represent a business opportunity for the software vendors. By making our terminology more widely available we use electronic tools to remain true to our hermeneutic function of helping people to communicate.

#### 3. Electronic Dictionaries

Our own terminology database is, naturally, intended to complement not replace professional dictionaries. Due to our organizational status as part of the Central Library at Research Centre Jülich, we could not fail to become aware of the importance of online journals for research scientists. These journals are continuously updated and are available at any time if users, or their institutions, have paid the not inconsiderable subscriptions. In the science sector, e-journals are set to replace print journals almost entirely.

In this way, we have become familiar with the benefits of instant online access to reliable sources of information at a price. Most translators are acquainted with dictionaries on CD-ROM, which are reliable and have more search functions than a print edition, but which are cumbersome to use and are essentially static. And all of us have undoubtedly toyed with free online dictionaries with mixed results.

As yet, few translators, or dictionary makers, seem to appreciate the potential of continuously updated dictionaries that can be accessed on the Internet for a subscription fee. It seems clear to me that this would combine the benefits of a dictionary produced in a traditional manner by professional lexicographers with the flexibility and interactivity of the online dictionaries generally produced by enthusiastic amateurs.

#### 3.1 Free Internet dictionaries

The most widely used all-purpose Internet dictionary for English and German is LEO, a nonprofit venture hosted by Munich University of Technology<sup>7</sup>. This dictionary is updated daily and as of July 2004 contained more than 400,000 entries. It is extremely popular in Germany and queries per day topped the 4 million mark in September. LEO specifically invites contributions from users and, after being screened, they are included in the database. Users also have the opportunity to pose questions in LEO's discussion forum and the

.

<sup>&</sup>lt;sup>7</sup> LEO http://www.leo.org/

contributions are archived for future reference. All in all, this is a very useful tool for professional translators.



Figure 2: Eierlegende Wollmilchsau

Reproduced by kind permission of the marketing bureau of the town of Pegnitz, Bavaria.

A genuine example from our daily work is shown in Figure 2. A scientist wanted to use this example in a presentation and asked me for an English translation. This amiable beast is known, for obvious reasons, as an "eierlegende Wollmilchsau", which translates (or rather doesn't) as an "egg-laying woolly milch pig". I have been unable to find a definition in a conventional dictionary, but LEO has one and this issue has also been chewed over at some length in the discussion forum.

# 1 search results for 'eierlegende'

ENGLISH		GERMAN_		
Composed Entries				
all-in-one device suitable for every purpose		eierlegende Wollmilchsau [coll.] [hum.]		

Figure 3: Screenshot of LEO definition.

Proposed translation:				
Allrounder, Jack of all trades	[gen.]			
Example:				
In the modern multimedia world, you need to be an allrounder, combining producer, cameraman, editor and narrator in one person.				
,Or:				
He is a Jack of all trades, but master of none (er ist recht gut in viele Sachen, ist aber in kein Feld ein richtiges Profi.)				

Comment:	
Ist zwar vielleicht nicht so	"bildlich" wie das Deutsche, aber bedeutet dasselbe
AW	Sat Nov10 22:41:51 2001

#### Comment:

I do not agree. The 'Jack of all trades' is in German "ein Hansdampf in allen Gassen". "Eierlegende Wollmilchsau" rather represents a product which fits really every purpose, even the most strange ones.

Markus Mon Nov 12 13:11:33 2001

Figure 4: Screenshot of LEO discussion forum.

The usefulness of such discussion fora is immediately apparent to translators, although perhaps in connection with less arcane terminology. As professionals we can evaluate the information contributed by others who may have special insights or good ideas that we do not. And there is also an opportunity to rectify terminology that one does not consider to be correct. This interaction is an extremely valuable feature of the dictionary for the user community.

LEO, said rather unconvincingly to stand for "Link Everything Online", is easy to use. For example, there is no need to choose a language direction, it is always accessible and very stable. These advantages are due to the fact that it was created by information technology specialists. As its popularity grew, its creators very sensibly saw the need to employ linguists and so its earlier howlers have now largely been eradicated, although it remains convinced that "gegenlesen" means "to cross-read".

However, even though it is now maintained by language experts it was not systematically created and it grows haphazardly. It includes some amazingly specialized terminology contributed by keen volunteers but its coverage is uneven. It may be worthwhile consulting LEO if all else fails, but translators must make their own judgement about the terminology offered. It is not "respectable" like dictionaries produced by established publishing houses.

It seems to me that here is an opportunity for reputable specialist publishers to take a leaf out of LEO's book and offer translators the best of both worlds: terminology that inspires confidence *plus* the undoubted convenience and boundless opportunities of cyberspace. Translators, whether freelance or in-house, should be prepared to pay a reasonable fee for this service. This is also a case where attitudes on both sides need to change in view of the

new technology - translators by paying a subscription instead of buying a dictionary or a CD-ROM and publishers by exploiting the new parameters of the Internet.

## 3.2 Fee-paying online dictionaries

TRADOS seems to have the answer for the German market in its new cooperation with Langenscheidt, the well-known publisher of foreign-language dictionaries<sup>8</sup>. It is now possible to access a defined selection of dictionaries published by Langenscheidt, Duden and Brockhaus without leaving the TRADOS environment. The dictionaries can be accessed in the same way as the translator's own MultiTerm database.

This is obviously much more practical than referring to separate CD-ROMs or consulting an online dictionary on the Internet. A search can be made in all the dictionaries simultaneously and all the results displayed. However, in essence the dictionaries remain CD-ROMs accessible via the Internet. In an effort to understand why the possibility of continuous updating is not exploited, I contacted the author of a leading technical dictionary, Langenscheidt's "Dictionary of Technology and Applied Sciences" Professor Peter A. Schmitt, and asked him whether this option had been considered.

He replied<sup>10</sup> that the terminology database on which his dictionary is based was updated daily and in theory (but only in theory!) it would be possible to make the database available online. The stumbling block is the incompatibility between Professor Schmitt's database, which has cross-references and other features that sound very attractive to a translator, and Langenscheidt's electronic dictionary format. The commercial dictionary is updated once a year and Langenscheidt plan to allow subscribers to download 500 new entries per year. For commercial and technical reasons, Langenscheidt market a CD-ROM dictionary accessible on the Internet and NOT a truly online dictionary.

In contrast, a monolingual dictionary available on the Internet for institutional and individual subscribers, the Oxford English Dictionary<sup>11</sup>, is updated every quarter. The OED offers a regular e-mail newsletter and, as throughout its entire history (beginning in 1878), it actively invites participation from users. I had the opportunity of testing the online version when it first came onto the market in 2000, but unfortunately the institutional subscriptions are quite substantial and it was not considered "scientific" enough for the Research Centre.

<sup>&</sup>lt;sup>8</sup> Langenscheidt: http://www.langenscheidt.de

<sup>&</sup>lt;sup>9</sup> Langenscheidts Fachwörterbuch Technik und angewandte Wissenschaften, Deutsch - Englisch. 1st edition 2002.

<sup>&</sup>lt;sup>10</sup> Personal communication 16 September 2004.

<sup>&</sup>lt;sup>11</sup> Oxford English Dictionary: http://www.oed.com/

I therefore make use of the freely accessible Merriam Webster Dictionary<sup>12</sup>, which is in fact superior to the OED in having an audio pronunciation function, which would certainly also be of great value for bilingual dictionaries. Webster also market a more recent and extended version of the dictionary at an advertising-free site for a very moderate subscription. If I worked freelance I would undoubtedly pay for online access to such premium products. Perhaps, like health insurance, we must get used to paying at point of use for superior service.

# 3.3 Combining the options

I have so far discussed the way in which freely accessible dictionaries exploit the benefits of cyberspace and the new service offered from this autumn to users of the TRADOS Workbench in cooperation with Langenscheidt. In addition, Langenscheidt already offers "one-stop shopping" to subscribers who wish to consult its high-quality electronic dictionaries online via their browser, quite independently of its collaboration with TRADOS.

At the Research Centre, we actually require BOTH functions. The look-up service, into which our MultiTerm database could be integrated on our intranet for our scientific staff, PLUS the integration of Langenscheidt's (and if possible other) dictionaries into the TRADOS environment for us translators. Access to all these dictionaries should naturally be available via the user's browser and they should be searchable simultaneously and display all the results on-screen.

This leap of the imagination seems to be conceptually startling and as matters stand we would have to subscribe separately to the two services since they cannot be combined. This does not make economic sense to us and I would like to encourage other users to put forward ideas which initially sound equally absurd to service providers so that they can think about a solution. Translators will only get the services they need if we tell software providers how we actually work and explain the nature of our work, which at a major research centre is undoubtedly quite different from a commercial enterprise.

It emerges from this discussion of the pros and cons of free and subscription online dictionaries that established publishing houses are not really exploiting the opportunities of the Internet very imaginatively. From the translator's perspective, it would be desirable to use

<sup>&</sup>lt;sup>12</sup> Merriam-Webster Dictionary: http://www.m-w.com

the excellent products provided by reputable publishers in the same flexible manner as the rather unpredictable offerings currently available free of charge on the Internet.

# 4. Translators Addressing a Wider Audience

I have touched upon two sectors in which computer-assisted translation has opened up new tasks for translators and where users should call upon software vendors to give them the tools they need for their job. I would now like to go a step further and suggest that translators might reach out to people who didn't know they needed translation services.

Once again, our experience within the now largely electronic home of the Central Library has led us to view our services in a new light. To quote a forthcoming paper by Dr Rafael Ball, the Head of the Central Library, and his colleague, Dirk Tunger:

"... whether a library can provide the right books and information is no longer the sole criterion today, but the decisive issue is increasingly the contribution that the library can make to its host institution."<sup>13</sup>

For librarians read translators and for books translations.

This is a particular concern of in-house translators, who today need to justify their existence and demonstrate the added value they provide within the company or institution. Equipped with our electronic tools we have to show that we offer services to the whole enterprise and not just to those colleagues who come to us for translations. Only in this way can we justify the investment in CAT and go some way to achieving cost-effectiveness.

## 4.1 In-house offerings

One possibility of reaching out to the whole Research Centre is making our terminology available on our intranet and another is providing demand-driven services such as revising texts written by researchers in English. A third goes even further towards face-to-face contact and involves holding seminars for interested colleagues. This again picks up the idea of the hermeneutic function of translators, who essentially work for and *with* people using their linguistic skills to help others.

Once again, the idea came from outside the Language Service and the first course started off as a seminar on how to make effective use of conventional print dictionaries, which are

<sup>&</sup>lt;sup>13</sup> Rafael Ball and Dirk Tunger, "Bibliometrische Analysen - ein neues Geschäftsfeld für Information Professionals? Die Unterstützung der wissenschaftlichen Forschung durch Wahrnehmungs- und Trendanalysen". To appear in: Zeitschrift für Bibliothek - Information - Technologie, No. 3 2004.

traditionally associated with translators, and gradually mutated into "English on the Internet" with a link list of sources for those using English as a second language <sup>14</sup>. This list comprises sources mainly discovered serendipitously during research for my translation work. The dictionaries and other resources, all available free of charge, are collected in various categories and each includes a (personal) commentary with an evaluation. In this way, a service open to everybody on the Internet arose from our everyday work due to our familiarity with electronic tools.

## **Sprachendienst**

Online-Wörterbücher und -Nachschlagewerke

Allgemeine zweisprachige Wörterbücher - Zweisprachige .Fachwörterbücher - Einsprachige Fachwörterbücher - Englische Wörterbücher - Deutsche Seiten - Enzyklopädie - Lernhilfen - Sprachkurse - Englischsprachige Nachrichten - Verlagsseilen - Computer-Übersetzungen - CD-ROMs

Allgemeine zweisprachige Wörterbücher

zum Seitenanfang

Eurodicautom

• Terminologiedatenbank der EU
• alle EU-Sprachen in allen Kombinationen
• sehr nützlich für EU-Terminologie, z.B. Verträge, Richtlinien etc., und auch im Wissenschafts-, Verwaltungs- und Rechtsbereich
• Informationen über Kontext und Quellen
• manchmal schwer zu kontaktieren

Figure 5. The link list freely available on the Internet

The experience gathered by the Language Service in evaluating various types of electronic dictionaries and other online aids, as well as familiarity with all the research topics dealt with at Jülich and the problems encountered by second-language users, led to a very popular course. The seminar also included a demonstration of the machine translation systems available free of charge on the Internet, which do indeed have a use in certain circumstances to obtain the gist of a text, but which rapidly convinced most participants that they could *not* do without the services of the Language Service!

These seminars are a spin-off from our conventional work, but apart from providing a direct service to our colleagues they give us the opportunity to advertise our skills and tools to the Research Centre as a whole. In a rather Machiavellian way, we show what nonexperts cannot, and indeed should not, do themselves and why they should consult language

<sup>&</sup>lt;sup>14</sup> The link list is freely available to all at: http://www.fz-juelich.de/zb/index.php?index=21

professionals. In these days of tight budgets and outsourcing, we must demonstrate our value, enhanced by our electronic tools, to the decision-makers who decide our fate, but who perhaps do not make direct use of our translation services themselves.

## 4.2 The wider world

It seems that many in-house language services are cut off from the world at large, or at any rate that they do not figure on the homepages of their institutions. I feel that translators should draw more attention to their work and their skills as an active response to the tendency to ignore their contribution to the (in our case) scientific endeavour. This is the reason why when we translate popular science brochures with a wider circulation we suggest that in the English version attention should be drawn in the credits to the translation work by the Language Service.

Obviously, by definition, in-house translators do not have to advertise for external customers, but I feel that it is important for them to draw attention to their existence. For instance, we have often tried to discover whether other research centres or commercial enterprises have a language service we could contact for terminological information, usually without success. This is undoubtedly an approach that merits serious consideration. Instead of hiding translation services contact should be encouraged in the sense of resource sharing. As already mentioned, we are a member of the Helmholtz Association of National Research Centres and we would be interested in encouraging an exchange of resources (in the first instance terminology) with other centres in our umbrella organization. It might even be feasible for us as the largest centre to open up our MultiTerm database for access by smaller centres without a language service, or to enable colleagues from other institutions to take part in our seminars. This would obviously raise intellectual property issues within and between commercial enterprises, but as a non-profit institution we can at least speculate on the benefits of resource sharing beyond the boundaries of the Research Centre that have been opened up by the new technology. Economies of scale are obviously required in view of the heavy investment for CAT tools.

An example of even more direct contact is the recent Open Day at the Research Centre<sup>15</sup>. An amazing 50,000 visitors came to Jülich and a surprising proportion were attracted to the Language Service's stand where we demonstrated our electronic translation tools. For many visitors, whether scientists or laypeople, the role played by translation in the dissemination of knowledge came as a surprise. However, it was precisely our display of

<sup>&</sup>lt;sup>15</sup> For pictures of our stand "Beyond Babelfish" go to: http://www.fz-juelich.de/zb/index.php?index=564#babelfish

computer-assisted translation that convinced them of the value of translators in the modern world. If the general public thinks of translators at all then they have a picture of ill-paid amateurs performing uninteresting work for a pittance as in Joanna Trollope's novel *The Rector's Wife:* 

"Paid by the page, Anna translated German and French technical books into English. It was dreary work, ... In order to make a weekly sum of money even dimly visible to the naked eye, she had to translate fifty pages a week, a drudgery she tried to regard as ineluctable as brushing her teeth or washing the kitchen floor." <sup>16</sup>

Demonstrations such as that at our Open Day draw public attention to the translator's profession and the tools we use. Ultimately, the public are our paymasters and this is one way of showing that we are indispensable as mediators in the modern Internet society and that we are equipped for new challenges.

#### 5. Conclusion

Translators can no longer afford to be afraid of CAT; this mode of working is reality for all of us, whatever our specialization. But like Dr Strangelove, we should learn to stop worrying and love our workbench, and the opportunities it gives us. I have discussed some examples of the symbiosis between translators and their tools. My major aim was to provide food for thought about the way we use these tools, what new tasks we can now undertake, and how we should communicate our needs to the software developers so that the working translator remains at the centre of new developments. More consideration should also be given to cooperation between translation services to reap the benefits of each other's experience and to go some way to achieving cost effectiveness in implementing the technology.

The Aslib Conference "Translating and the Computer" is an indispensable forum for translators of all kinds, bringing them together with software developers and vendors, academics, and, not least, young people joining the profession. I have tried to show how we use CAT in practice in ways perhaps not intended by the developers and how these applications have opened up new opportunities for us to apply our language skills. Translation is by its very nature an innovative field and the new cyberworld should hold no terrors for us as long as we can exploit the opportunities creatively in the context of our daily work and use the new technology to communicate directly with others engaged in the same endeavour.

<sup>&</sup>lt;sup>16</sup> Joanna Trollope *The Rector's Wife*. First published 1991. London, Black Swan, 1994, pp. 11-12.

### References

Ball, Rafael and Dirk Tunger. "Bibliometrische Analysen - ein neues Geschäftsfeld für Information Professionals? Die Unterstützung der wissenschaftlichen Forschung durch Wahrnehmungs- und Trendanalysen". To appear in Zeitschrift für Bibliothek - Information - Technologie, No. 3, 2004.

Carter-Sigglow, Janet. "The Internet and the Single Translator", Translating and the Computer 21, Proceedings from the Aslib conference held on 10&11 November 1999.

Sack, Adriano. "Die Medicis des 21. Jahrhunderts" in Welt am Sonntag, 18 April 2004

Trollope, Joanna. The Rector's Wife. London, Black Swan, 1994.