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The TM Revolution - What does it really mean?

"O, for an engine to keep back all clocks!" (Ben Jonson)

Time is the dimension we can least control. In the translation industry time is of crucial importance to the end users and therefore to all the links in the translation industry chain.

The old adage that 'Time is Money' is still true - but it is not the whole truth. In the software industry, for example, the *timing* of the release of a product in a local market may ensure its complete success - or its failure. Any loss of impetus is exploited by competitors. The sales lost are not a one-off loss but have serious repercussions for lost repeat sales of additional licences, upgrades and add-ons, so lost market share in the early stages may result in the failure of a software package to become established on any significant sale. Lost sales are not just delayed - they are truly lost. Hence the demand for simultaneous release of local language versions of software, documentation and on-line help. The software industry is notorious for product launch delays¹ so when software is finally completed in the original language and ready for translation, the pressure on the translation function is already extreme.

Consequently it is no surprise to discover the software localisation industry has been one of the most enthusiastic in embracing Translation Memory technology as a means of ensuring consistency and speeding the process. The latest release of any software is almost invariably a development of the previous version, so much of the material for translation may be unchanged - or appear to be. The traditional cut and paste techniques, whether electronic or literally cut and paste, were always time consuming, uncertain and dangerous because there was no guarantee that the translator would discover all the changes. Translation Memory systems not only recognise every change, however small, but speed up the process by dropping in unchanged text automatically (or semi-automatically if preferred) and also alert the translator to similar text for editing. There are gains in speed and consistency - and the translator is secure in the knowledge that nothing has been missed.

Time dominates the lives of translators whether they are in-house or freelance. A recent survey on the lifestyle of freelance translators² (without Translation Memory) revealed that:

- 49% of translators are working more than 9 hours a day (including 9% working more than 12 hours a day)
- 24% stay up all night at least once a week, with an *additional* 23% staying up all night once or twice a month.
- 28% have deadline "crunches" at least once a week
- 26% hate the deadline problems - a further 53% regard them as part of the job.
- 14% admitted overworking constantly to the point of damaging their health, with a further 7% doing so once or twice a month

¹ Windows95 shipped so late, it might have needed to be renamed.

² Presented by Jennifer Nazak at IJET Conference. University of Sheffield. 19-21 June, 1997.

- 60% confirmed "I will put the rest of my life on hold for a short urgent job - for a few hours to a couple of days"
- 33% confirmed: "I will put the rest of my life on hold for most jobs - even those lasting several weeks or months - without breaks except to eat or sleep"
- translators' private lives were getting "short shrift" in the following areas: playing with kids 21%; socialising 60%; exercise 79%; hobbies/recreation 77%.
- 79% already spend little or no time on commuting

These findings present an alarming picture of the freelancer's lifestyle and hence his ability to deliver consistent quality on time. Significantly, 56% said that, given the choice between extra money and extra time, they would opt for extra time.

Fortunately they can have both, as many have already discovered. The solution is Translation Memory software which can offer them the winning combination of accuracy, consistency and productivity - at an affordable price.

1 What is TM?

Translation Memory Systems are an advanced form of Computer Assisted Translation (CAT). As you translate, the system memorises your work. When you encounter a similar sentence later your previous translation is offered as a suggestion, so you never need to translate the same sentence twice.

Translation Memory systems provide assistance with terminology, phrases and sentences and are often integrated into a complete working environment for the translator, such as Translator's Workbench.

Most translators prefer to work in a mature word-processing environment such as Word or WordPerfect so they can benefit from the full range of word-processor functions whilst translating.' A translator using Translator's Workbench, for example, is working in the familiar Word/WordPerfect context and as he works every sentence he translates is saved automatically in the translation memory database. Each sentence for translation appears in a blue window. If there is already a 100% match in the translation memory database the translation will appear in a green window (green for go!). If there is a similar text in memory which is worth editing, it will appear in a yellow window (c.f. amber traffic lights) to alert the translator to the need for editing. This is known as a "fuzzy" match. The translator sets the percentage similarity limit below which the yellow window will be empty, ready for his translation.

Whilst working he is assisted by the MultiTerm terminology management system: if a term he encounters is in the database it will appear automatically in a window, top right, complete with an indication of Customer and Domain (and other information), as required. The Workbench is providing proactive terminology recognition by feeding him with the correct term at exactly the moment he needs it.

³ On the OTELO Project a survey was carried out of 107 users/user groups and included the question "Which facilities would you like to have Translation Memory integrated with?" 82% preferred integration in a wordprocessor; 18% preferred a proprietär,' editing environment

Sentences and terms are covered - but what about phrases? A unique feature of Translator's Workbench is the Concordance feature which enables translators to check any previously translated phrase (or term or sentence) with a mouseclick - and everything they have translated since the first day they started using the system is totally transparent and accessible.

From within the familiar environment of their wordprocessor TRADOS users can translate texts in a wide range of formats including Ventura, Interleaf, SGML, HTML Help and Resource files. In addition, the S-Tagger for Interleaf and FrameMaker has been developed by ITP and provides an elegant solution to these conversion requirements.

Translators soon wish they had started using the system earlier. Ben Jonson would have been impressed: they can turn the clock back by building translation memories from pre-existing translations. They can recover this legacy text for recycling by using an alignment program such as WinAlign. This latest Windows program (currently completing the beta testing phase) uses a sophisticated matching process to match sentences from pairs of files to create a new translation memory.

The concept is remarkably simple. The best programs are user-friendly but function rich. The computer does what it is best at, such as recognising repetition by accessing a translation memory database - and the human translator does what he is best at - being perceptive and creative, understanding and reproducing the infinite nuances of current human language usage. The benefits of this synergy to the translation industry and its customers are enormous.

2. Why Translation Memory?

Human memory is notoriously fallible as is shown by the divergence in eye-witness accounts of accidents and crimes. It is perhaps no accident that the world's religions each have a holy book to reinforce the oral tradition. Professional translators have always attempted to help their memory (e.g. glossary cards in shoe boxes and the Filofax) so it is not surprising that translators are now embracing the new technology and discovering an easier and more productive way of working.

Unlike those in many other professions, translators have rarely been able to leverage their effort or enjoy accelerated progress - every penny of every pound has had to be earned the hard way. Imagine setting up a company called "Disposable Translations Ltd" or maybe "Einweg-Übersetzungen GmbH". Use once and discard! The German for database is Datenbank. This term is a useful reminder that a database is a high value concept - and a Translation Memory is a sophisticated database of sentence pairs of course. It soon becomes apparent that a translation memory is a translator's or company's most valuable asset. We don't throw away our financial investments every day - so why do it with our valuable professional output?

3. Who needs it?

A practical starting point is to ask the question "Who is using it?" Not all translation memory developers reveal their clients, but a glance at the Trados Client List⁴ shows a wide range of users including:

- Governments ministries, law enforcement agencies, trade commissions, especially where more than one language is spoken.
- Manufacturers in virtually every industry. Every manufacturer who intends to export his products to markets where another language is spoken, and especially where it is a legal requirement that the user manual and safety instructions be in the local language of the user, needs Translation Memory.
- The localisation industry. This industry has requirements not just for textual information but also a higher functional adaptation to the local markets, together with a requirement for global synchronicity - hence the rise of the localisation industry⁵ and its enthusiastic use of translation tools.
- Translation companies and freelancers.
- Universities.

Who else needs it? One example is minority languages. MT has not served minority languages well, the main reason being the commercial reality of insufficient sales to justify the massive cost of creating the machine translation software. In contrast Translation Memory systems are highly flexible and can be customised for minority languages extremely cost-effectively. They can offer a high quality solution where none was previously available.

Perhaps it is quicker to ask who does not need Translation Memory... Advertising has always seemed so inspirational and quirky that Translation Memory would be out of place - but users are confirming that being able to check approved terminology and phrases using the Concordance feature in Workbench can be very helpful especially in ensuring consistent product image. Total transparency of previous work is a very attractive feature.

The least likely use for Translation Memory would appear to be translating poetry, but a Leipzig professor recently made an interesting claim that a project to translate Shakespeare's sonnets should use Translation Memory to ensure that Shakespeare's consistency and term relationships are accurately reflected in the target language.

In short - everyone whose translation needs include accuracy, consistency and productivity needs Translation Memory.

But that's not the full story because Translation Memory has a wider repertoire of benefits. It also enables the user to

- control the translation process
- control pricing
- maintain a loyal clientele

Translation Memory empowers the user to control not only the linguistic and commercial aspects of the translation process but also its pricing. Using the batch process Analyse the Workbench user can identify the workload involved in translating the text: the quantity of 100% matches, fuzzy matches and no matches. Consequently he can pitch his quotation at a

⁴ <http://www.trados.com>

⁵ It has been estimated that Microsoft alone spends \$250M/annum on localisation)

level based on known factors and commercial considerations, fine-tuned to his specific requirements which may range from obtaining maximum profit through to virtually ensuring that he obtains the contract whilst returning an acceptable profit margin.

In addition, a translation company using Translation Memory is also likely to maintain a more stable clientele primarily through delivering consistent quality but also because it is ultimately in a position to share the benefits with the client.

What level of savings can be expected from Translation Memory? It will depend on a number of factors including how much repetition there is in the text, sentence length (there is naturally more likelihood of 100% matches in smaller units) and also, of course, the user-friendliness of the software. It is very difficult to obtain precise information because those making the greatest savings have an interest in not advertising them! A few typical examples of known savings include a Swedish telecommunications company who achieved 30% savings almost immediately and soon progressed to 45-50%; a bank in Switzerland is claiming 70% time savings and freelance translators are reporting translating up to 12,000 words per day. Incidentally, a UK software company confirms that it is now translating new versions of its software, which used to take three weeks, in about as many *hours*.

4. What is happening in TM?

There is greater awareness of the potential of the Internet and companies now have the opportunity to maintain a company-wide terminology database on the Intranet or Internet: the MultiTerm Web Interface.⁶ Any member of the company, anywhere in the world has access to the company dictionary. It is always to hand, always up to date. The result is absolute consistency of terminology world-wide - and less risk of litigation through errors and inconsistencies.

Translator's Workbench already has real-time networkability - every translator using the same memory has immediate access to the updated memory with resulting synergies, a bilingual Concordance function which makes previously translated words or phrases absolutely transparent with the term or text highlighted in context. It also offers a range of batch utilities including Analysis and Pretranslation. The 32 bit version of Workbench adds to Asian language coverage with Japanese, Chinese & Korean now as source languages too; this version is expected about the turn of the year.

WinAlign, the latest alignment program is an interactive program with improved alignment performance, so it is inherently more satisfying to use than previous solutions. Incidentally WinAlign is a prime example of global teamwork with intensive testing being carried out by TRADOS developers, support staff and committed clients world-wide.

MultiTerm Dictionary combines custom-made corporate dictionaries with commercially available dictionaries from prestigious publishers such as Duden-Oxford. It allows a company to compile and distribute dictionaries within the organisation and can be combined with ready-made dictionaries. There is even a tool to create bilingual glossaries semi-automatically.⁷ This tool can also be used retrospectively as a quality instrument to check that the correct terminology has been used.

⁶ The MultiTerm Web Interface can be visited at the Trados test site: <http://gcrmanv.trados.com>

⁷ TRADOS Trademark Checker

Is MT currently a competitor of Translation Memory? MT cannot compete on quality and reliability, but interestingly some MT exponents do see Translation Memory as the way forward, the solution being to integrate the two technologies. The main problem with MT has been its inability to learn from previously translated and revised text. When MT & Translation Memory are combined a system will typically search the translation memory first - i.e. it does not go back to first principles but builds on the final version of the previous version of the text. This integrated approach already exists: Trados Translator's Workbench for example can be used in conjunction with Transcend, Logos and Systran MT systems.

Normally the use of Translation Memory implies the existence of an electronic file. But scanning systems are now low cost and high quality, producing good results from laser print. Workbench is error-tolerant so an occasional error in the scanned text simply produces a fuzzy match of a lower percentage value.

When hard copy source texts are the only option, the terminology still needs to be correct. MultiTerm is invaluable as an aid to ensuring accurate use of terminology, especially as it interfaces with most Windows word processors. When translating from hard copy some users work with Translator's Workbench, presenting terms and phrases and sentences to Concordance for translation memory lookup.

5. Where is TM going?

Translation Memory has come of age. It is now a mature technology and widely used, as is confirmed by moves to create compatibility between the various translation memory formats for translation memory exchange (TMX), namely the **OSCAR project** (Open Standard for Container and Content for Re-use) which originated in Alexandria on 2 June 1997.

Its primary task now is to define a standard format to facilitate the exchange of translation memories between various translation tools. This has been broken down into a series of subtasks:

- selection of mark-up method
- selection of method of designating language
- method to specify how the characters of each language are to be encoded
- design of overall structure for a TMX document
- filling out the details of the format
- testing on real translation memory data.

New users are interested in optimising the workflow pattern and to this end Sharon O'Brien of ITP has created a Workflow Manual which can be downloaded from the Trados website.⁸

It has been an eventful year for Translation Memory vendors, including TRADOS:

- the EC has adopted Translator's Workbench as its translation tool for its 2000 translators, following its earlier adoption of MultiTerm as its terminology tool.
- Microsoft has bought a 20% share in TRADOS, not in order to reduce translation tools to single button on an MS button bar, but to ensure guaranteed availability of its preferred translation tools for software localisation

⁸ The Workflow Manual can be downloaded from <http://www.trados.com>

- Trados has opened an office in Alexandria, Washington and plans to open offices in Tokyo and Dublin (the home of software localisation) in the new year.

Translation tool companies provide a complete solution: they supply software and support, together with installation, training, consultancy, data conversion and alignment as required.

6. What are the implications?

The basic concept has become widely accepted and adopted.⁹ Even freelance translators with a limited budget have recognised that the decision to adopt Translation Memory technology is a measure of their professionalism and entrepreneurial awareness. A system which can contribute to the quality of their work whilst enabling them to earn more and faster must be a high priority. They are tending to see Translation Memory technology as the next step in the chain of word-processing with the diacritically enabled Amstrad, then the PC, fax, modem, e-mail, followed by Translation Memory. It is not uncommon for translators using Translation Memory to translate 12,000 words a day - to a high standard of accuracy and consistency. Once they have experienced the benefits of Translation Memory, users rarely go back: they are aware of the hazards inherent in struggling to reinvent repeated text. Working without Translation Memory means tedious wasted time - and a sense of vulnerability through being conscious of "bodging". The full benefits of Translation Memory often remain secret because the most committed users often hide their enthusiasm for competitive reasons.

The move towards Translation Memory can be said to have reached critical mass. We are moving from the initial period when professionally (and commercially) aware companies and translators were cautiously considering Translation Memory as a concept, to the current situation where the question is not "Whether..." but "Which?" and "How soon can we have training?"

Many would now claim that to revert to translating without Translation Memory would be unthinkable because it would be:

- uneconomic - as manual repetition is not a cost-effective use of a professional's time
- unprofessional - irresponsible because accuracy and consistency will suffer
- unsafe - because it relies on human fallibility

The good news for those who have not yet tried Translation Memory technology is that as soon as they do so they can expect worthwhile improvements in:

- quality
- profitability
- peace of mind.¹⁰

Translation Memory does not just mean a better workstyle - it means a better lifestyle.

Ben Jonson would be disappointed that no one has yet invented his "engine to keep back all clocks", but the time has come for Translation Memory: it cannot stop time - but it does enable translators to achieve more and better - in less time and *on* time. So perhaps our

⁹ See Trados Client List at <http://www.trados.com>

¹⁰ The ITI Members' Scheme Professional Indemnity Insurance features a discount to Trados users. Contact: John Leese at Swire Renshaw +44 (0) 484 422200

message - through time - to Ben Jonson would be "If you cannot stop time, just use it to the full!"