Translation Editing Environments

Elina Lagoudaki

University of Wolverhampton
Research Group in Computational Linguistics
Wolverhampton WV1 1SB United Kingdom
elina.lagoudaki@gmail.com

Abstract

This paper reports on feedback received from translation professionals on the translation editing environments they use, within or in conjunction with their Translation Memory system. Four options of environments emerge and their respective advantages and disadvantages are discussed. It is shown how these environments impact on the translation process that their users follow and how the process could be improved. A number of needs concerning the functionality of translation editors, as well as the user interface, are presented with reference to particular use contexts.

1 Introduction

The translation editor is one of the modules in a Translation Memory (TM) system that is responsible for the first impression of the system on its user. Everyone knows that first impressions count.

However, despite abundant research on other modules of the system, such as the search and matching modules, terminology management and project management, there is scarce knowledge of how translators perceive the environments that are offered to them by the current TM systems, what influence the former have on the translation process and what features could be added or adjustments made to increase both productivity and job satisfaction.

An investigation around translators needs concerning translation editors was carried out through the implementation of a survey addressed to actual and also potential TM users (i.e. translation professionals who did not use any TM system at the time of the survey but were interested in them and/or were considering using one in the future). The survey was administered online and was publicised in translators' fora, translators' associations and online TM user groups. The questions were organized in six thematic sections seeking information on the profile of the user, translators' work environment and practices, usage of TM systems and limitations of use, perceptions of the systems, evaluation of systems based on users' experience and future directions based on desired functionality.

Thanks to the global outreach of the research, the survey returned feedback from 874 respondents from 54 countries worldwide, covering all language combinations. Of those, 90% were translators and 73% were working as freelancers. 64% rated their general computer usage competence as 'good' – 30% rated their computer skills as 'excellent'. 61% reported specialising in the translation of technical texts with high levels of content repetition.

Using coding schemes and analytical elements of the grounded theory approach the research revealed a large number of needs regarding translation editing environments, in terms of both functionality and non-functional aspects. The needs that concern the functionality of the translation editor are different from user interface requirements. The former relate, above all, to the translation process that the user enjoys or finds more convenient to follow while he carries out the translation task.

2 Types of text editing environments

The survey showed that translators have different preferences in terms of the type of translation edi-

tor, depending on their personal circumstances, and also sometimes on their idiosyncratic work habits. Based on their responses, translators choose one of four ways when it comes to translating with the help of a TM system; consequently, needs associated to each one of them must be examined independently.

2.1 Standard text processing environments

Some translators prefer to work in a text processing environment that they are familiar with, and for which TM plug-ins have been developed to bring translation-assisting functionality into these programs (e.g. MS Word). All users who responded favourably about these word processors were receiving the greatest proportion of their work in an MS Office file format.

One of the commonest reported advantages was *"…the text is translated and the doc's layout remains the same as it was it in original. No need to redesign/re-layout the output"*. Some favourably inclined users liked the physical presentation of segments and others appeared to be particularly fond of working directly in the environment they were accustomed to, having the ability to use MS Office's rich text editing functionality (*"so I can use Autotext and even macros, as well as spell check 'on the fly'"*). Furthermore, a repeated comment coming from translators and translation company owners alike was that an editor of this sort is easy to understand, hence it *"doesn't freak out new translators as they still can work in Word"* and *"doesn't bother [translators] with the interface that has to be studied"*.

However, the majority of the favourable users of this editor reported major problems with it, the most repeated of which was the frequency of MS Word crashing, *"especially with documents that contain odd formatting changes"*.

Another problem worrying some of the users was the frequency of updates to the RTF file format by Microsoft, and the inability of TM developers to provide plug-ins for this format to keep up with these changes. Translators using this type of editor expressed a need for correct language detection, the ability to merge and split translation units and that the TM application should *"not disable any functions of the software for the source file (e.g. when translating .doc files, all MS Word features should be available)"*. Moreover, being able

to use Copy and Paste in the MS-Word environment while using the TM tool appears to be also important for these users.

2.2 Dedicated text processing environment provided by the TM system

Other translators favour working in a dedicated text processing environment into which the file to translate can be imported. Usually, these editors present the source and target segments in a vertical or horizontal tabular way.

The advantage of a dedicated interface is that as long as the translator receives work in any type of format supported by the TM system, he will always work in the same interface in the same way. Editors of this sort protect the original formatting by default, and this information is also applied to the translation. However, unlike word processors, the editors make it much more difficult to modify the formatting information, and this was the most frequent complaint expressed by the users of these editors. The ability to copy source segments and paste them to target segment cells, as well as that of being able to merge and split segments, all at the touch of a button, were the next most compelling needs of these users.

2.3 Translator-friendly word processors

Some like better working in a translator-friendly word processor to which one can copy and paste any text from any file into the application, translate it with potential matches, and copy it back into the originating application. The translator-friendly word processor has all the standard word-processing facilities enhanced to facilitate the translator's text editing moves. People who use such editors enjoy the benefits of TM functionality irrespective of the file format of their source file and are in greater control of the page layout and the formatting of text which they can edit or leave as it is from within the native application. A further advantage reported by the users of such editors is that they can choose which text needs to be translated and what needs to stay as it is.

2.4 Translating in the native application of the source file

Finally, others prefer translating in the native application of the source file (e.g. FrameMaker, In-

Design, Dreamweaver) or within a CMS, and have their TM software open at the same time giving them access to stored previous translations or terminology. There were quite a few cases like these present in the survey, involving work scenarios such as translating creative material (*"when translating advertising/marketing material, it is sometimes more convenient and inspiring to work directly on the actual source text. TMs sometimes make me translate mechanically, word for word; this is more applicable to technical texts rather than creative translation."*), texts with complex layout (*"Sometimes it is easier for me to translate the text 'manually' and then perform alignment of the source and target texts in order to avoid formatting problems if the text seems to be too complicated from the formatting point of view."*), short jobs that *"don't always justify the work of setting up a project in the software's data organization system"* or translation of minor updates (*"If there are small updates to projects, it is easier and quicker to implement them directly in the source files instead of going through the whole rigmarole of converting files backwards and forwards which can be quite cumbersome…"*). Some of these translators requested a minimal presence of a translation editor (as a plug-in) in the form of a toolbar lending translation editing functionality to the text processing application of their choice. The TM functionality would be accessible from the toolbar, which would be always on top of the window containing the project a translator is working on in any file format, so that the TM functions are always within easy reach without impeding his work. The translator would perhaps highlight a term, phrase or sentence and by pressing a shortcut the system would search the databases/index for this highlighted segment, displaying the results in a small search window. This design appears to be ideal for those who want minimal help, especially with terminology, who prefer greater freedom in translation and who do not encounter great external repetition.

3 Translation process

In terms of the translation process that each editor offers, the first two models described above impose their own way of working through the text, with little flexibility given to the translator for customising the process. Most of these two types of editor segment the source text, forcing the translator to work on a segment-by-segment basis. The feelings of the surveyed TM users about this rigid process were mixed. Those who usually translated creative or non-creative, yet not technical, texts maintained that the segmentation of the source text *"…hinders the flow and creativity of the translation process due to the 'one sentence/one segment' structure."*

The same group believed that this process can also have a negative impact on the translation product: *"Forcing me to work on a sentence-by-sentence basis interrupts the flow of the language, and possibly degrades the quality and beauty of the language. Granted, this isn't a huge issue with highly technical texts, but once outside the realm of purely technical, style DOES matter."*

However, a few inexperienced technical translators, having Romance languages as their working languages (e.g. French, Italian and Spanish), expressed a positive view about this process, when asked what they liked most in their TM software: *"[I like] that it forces me to work steadily and consistently through a text. Before, I used to 'jump' difficulties and leave them to solve later on. With [name of TM software] I have to work each one as it shows up - this is very good." "[I like] the physical presentation of segments (in [name of TM software], in two differently coloured boxes one above the other, with differently coloured backgrounds)" "[I love] the fact that you can translate a sentence at a time without seeing the rest of the text. This makes it easier and clearer to translate."*

For this group of translators, the major concern is the ability to change the order of translation units, which they need in order to preserve their freedom in manipulating the structure of the translated text.

Others, apparently not satisfied with the existing process, expressed the need to be given *"the possibility to go paragraph by paragraph seeing the source and target segments"* while they translate, and even the option *"to choose how many words the segments I'm translating should contain"*.

In literature, segmenting the source text into sentences has given rise to numerous objections from translation theorists and practitioners alike, who claim that such a process induces a mechanical way of translating which prevents the translator from applying any creative flair to the translation

and even alienates the translator from his work (Biau Gil, 2005; Bowker & Barlow, 2004:79). Pym (2003), on this matter, insists that "seeing texts in segments reduces translation to the most primitive sense of fidelity: fidelity to words at sentence level", while he argues that such a substandard process "keeps translators focused on language-replacement exercises". Désilets et al. (2006:22) add a further argument against this process by explaining that "…it tends to encourage (sometimes even enforce) literal, sentence by sentence translation. But good translation which is idiomatic and culturally appropriate often requires that the translator deviate from the structure of the source text. In particular, whole sentences may be left altogether untranslated if they are not culturally appropriate in the target language".

Overall, the surveyed TM users seem to prefer being asked how they want to work through the text: sentence by sentence, paragraph by paragraph, or seeing the whole text. This way, the system will adapt to the translation process that is most suitable for each translator, rather than imposing its own.

A side-effect of following a segment-by-segment translation process is the difficulty of seeing or visualising the source segments in their original place in the source text, as the text no longer exists as an integral semantic unity but has been dismantled into small individual textual fragments: *"With [name of TM software that allows working in MS Word] you cannot see the full source text. Once you translate a TU the source text disappears. Same with [name of TM software that provides a dedicated text processing environment]: You cannot see the entire source document. You have to open it in Word to see what it looks like in full."*

This causes several problems and limits the application of TM systems, as some translators have reported: *"It takes text out of context. Sometimes it is difficult to recognise and maintain format." "I do not use TM software for literary, journalistic or creative texts, that is, for texts for which I need to have the whole text in mind."*

Along similar lines, Benis criticises this particular translation process in one of his regular TM system reviews (2007:30) by explaining that: "…you see little context above and below the sentence you are working on. More importantly, when the time comes to check your work you will find the sentences displayed contiguously, making it easier to lose your place or inadvertently skip a sentence, and more difficult to scan through your work, checking the translations against the source text."

On the issue of source text visibility, using frequency of mention as a surrogate for importance, the survey showed that the visibility of the source document at all times (*"the capacity to work side-by-side (Source-Target)"*) during translation is imperative to any translation process. In fact, it appears that it is not only enough to be able to view the source text as a list of sentences, but it is also important to see the formatting of the text, as well as any non-textual elements, in other words, to be able to view the source text in its original form. This need appears to be associated with the translation of all types of texts, as well as with the localisation of software. With regards to the latter, Savourel (2001:17) points out that the lack of source text context during the localisation of software poses "a restriction that can affect the speed and the quality of their work"; for example, "a heading can be translated differently or have different capitalisation rules if it appears in a manual or in the index of a help file".

Moreover, research on the importance of visual elements that are present in the source text has shown that it helps translators in problem solving and decision making during the translation process (Kussmaul, 2005). In fact, Kussmaul (2005:378-82) believes that the visual elements of the source text aid the comprehension of the text and, furthermore, help stimulate a target frame, that is a translation. Biau Gil (2007) has also observed, through his experiments, a difference in the quality of translation when translators had access to visual information compared to others who did not. He argues that the lack of visual information in the translation environment creates problems, such as wrong punctuation, inadequate translation decisions due to a lack of awareness of a problem and delay in decision making.

3.1 Translation reviewing process

Another issue brought forward by a small number of surveyed TM users and relating to translation editors and the translation process that the system dictates, was the lack of support for the reviewing process which is required from transla-

tors/reviewers as a service as often as translation itself: *"I also regret that TM does not fit well into workflow when freelancers are editing/being edited. The final changes do not usually make it into the TM, since cleaned documents are sent for editing." "It is very important to have an environment for the reviewer, for example, identify only the segments to be reviewed and automatically open only these segments (e.g. sometimes a reviewer doesn't have to review 100% matches)."*

For this group of TM users, the translation editor needs to incorporate functionality that is appropriate for reviewers, such as the possibility to:

- select the text that needs to be reviewed
- track the changes that have been made
- accept or reject changes
- add comments to translated segments
- do a global search and replace for any text
- present to the reviewer, once he corrects or edits a word/phrase, all the occurrences of this word/phrase throughout the target text, in order to correct it in all other instances, as well as all the occurrences in any of his chosen resources, in order to correct it there too
- compare source and target texts and highlight differences between the translation and the user's translation resources
- use all the quality control tools that are incorporated in the TM software.

On the whole, translators showed great interest in working in a text editor that allows them the flexibility to translate creatively and in their own preferred ways: *"I don't want the CAT tool to force me to work in a different way so I like to continue doing some work without it to make sure I keep my usual translation methods."*

The more experienced the translators were, the more freedom they appeared to demand in their text-editing moves. As for the translation process, all translators seemed to enjoy a process where the system automatically displays the translation of any source text that seems to have been translated before, as the translator works on his text, having at the same time the possibility to edit any text in his repository of language resources (e.g. past translations, glossaries, corpora) interactively as he works.

4 Target text preview

Another important need frequently mentioned in the survey responses is the ability to *"preview the target file, no matter how far the translation has gone"*. In particular, translators appeared to appreciate the possibility of previewing their translation in its original file format at any time by clicking on an icon, in order to ensure that they have not missed any non-editable text that also requires translation.

5 Visibility of formatting tags and underlying code

According to the survey, one third of all electronic editable text for translation comes in formats other than the MS Office ones (e.g. HTML/XML files, InDesign or Quark files). Translators dealing with these types of texts appeared to be concerned with the markup instructions hidden in the text, which, if deleted or corrupted by translators by mistake, cause problems such as the damage of the formatting of the text or the layout of the document. In some other cases, the offending codes may even prevent the exporting of a project from the TM application.

Bowker (2002: 137) argues that the ideal TM tool should "shield translators from the messy business of wading through computer code and allow them to focus on identifying and translating the relevant text strings. The advantage of this approach is that it helps to reduce the translator's learning curve, which makes the translator more receptive to using the tools." As is indicated by the survey, her view is shared by a particular segment of translators, i.e. those with a low level of computer skills and with less than five years of professional experience in translating. These translators need protection from something they believe can disrupt their work, and therefore it should be left to specialists to deal with. All other translators with good or excellent computer skills, irrespective of experience, TM usage level or age, seem to prefer the freedom to interfere with the code and change it, in order to adjust the formatting of the text or the layout of the document. These translators favour the idea of a WYSIWYG editor that can display for both the source and target files the formatting and layout and also enable the user to

access the source of the files where markup is visible and editable, with the additional possibility of copying tags from source text to target text. This would satisfy a compelling need expressed by the surveyed high-tech translators to *"see the 'bones' of a text"* and to be able to manipulate the form of their translation.

6 Pre-translation

On frequent occasions, translators receive partially translated texts and are called on to translate only the untranslated parts. This is often the case when there are regular updates to content that needs to be fresh at all times, such as product documentation, some websites and financial reports. The possibility of carrying out a pre-translation of a document in a TM system, by leveraging any previously translated content, appears to be very appealing to a large number of the survey respondents.

The advantages of this function are found to be appreciated by both translators and translation clients alike. The latter choose to use pre-translation when new text has been added to an old translation, or when they are reluctant to assign anew the translation of text that has been translated before, especially when they can find the old translated segments in their TM repository. Apart from the obvious cost savings, many companies/clients also prefer to supply external translators with pre-translated texts, instead of giving them their translation memory, to protect the ownership of their database. Finally, by providing a pre-translated text to translators, which contains the terms, phraseology and brand names used throughout their organisation, they ensure that their branding is preserved. In all cases, the translator's job is to translate the remaining parts of the text for which no matches could be found in the client's repository.

Translators also appeared to be in favour of a pre-translate function, under certain conditions. If their client has carried it out in advance and has provided them with a partially translated text from their resources, they appreciate having the terminology, phraseology and style that the client has already approved right in front of them, saving them time to research such matters. Things change, however, when the pre-translation has been carried out in a system that has produced a draft translation by machine translation techniques. There is no

doubt, as Wallis has also rightfully noticed in his experiments (2006:12), that most translators do not like working as post-editors for these kinds of (partial) translations. And that is because, first of all, it is generally more time consuming to edit a poor translation than to produce a new one and, secondly, with pre-translated segments the translator is inclined to use the sentence structure of the source text (particularly problematic for languages with hardly any similarity between their sentences' structure), with little freedom or motivation to apply his own style, while at the same time risking producing a 'jigsaw puzzle' with pieces that seem to fit correctly with each other but fail to form an overall picture.

It appears that pre-translation is a helpful function for translators when clear-cut specialised terms are replaced by target language equivalents at the beginning of a translation. Most problems start to appear when the system automatically replaces every part of a source segment with the target match (fuzzy or exact) that it finds in the database. Therefore, it makes sense for translators to be given options as to which matches they want replaced. To the same end, another solution expressed by the surveyed translators would be the possibility for them to carry out a pre-translation interactively, that is, to enable them to accept or reject the proposals of the system at their point of entry, rather than after they have replaced the source text. This way, the translator can control any unnecessary replacements before starting the translation, rather than spending time editing them at a later stage.

An interesting need inferred from the comments of translators regarding pre-translation is the possibility of viewing the pre-translated text not in the main working window but in a separate window, using it as a reference, instead of a starting point for their translation. Some translators have actually reported that a pre-translated text is often so restrictive that they cannot work directly from it but prefer to create a brand new target text; yet, it is often so helpful that it can be used as one of their primary sources of consultation.

7 Text formatting and page layout

One of the major concerns among TM users who use either a MS Word-based editor or a dedicated

text processing environment seems to be how well the system deals with complicated formatting and document layout. A great number of complaints were expressed regarding the editors' propensity to damage documents with complex layout, *"causing formatting problems that call for repeated document re-creation"*. Most problems are encountered when the source text contains tables, numbered sections, bookmarks, bullet points or frames. In addition to altering the formatting, some systems also fail to recognise translatable text within text boxes, footnotes, tables of contents and links, which means that this text is often not presented to the translator for translation, hence translators often forget to translate it and only realise it when they preview the final document – at which point they go back and sometimes translate it outside the TM.

For the users of these types of editors, the system's ability to preserve the original formatting of the text and the document's layout in perfect condition, as well as identifying text in complex formatting appears to be of paramount importance, as the lack of these features is causing them great frustration and delay in their work. Additionally, some also favour the possibility of cloning the formatting and layout of the source text to the target text, arguing that a perfect cloning can save them time in recreating a complex formatting. Nonetheless, it is agreed that the editor must allow the user to change the formatting and layout as he sees fit and must offer a range of formatting options.

For the users of the third type of editor (translator-friendly word processor), no requests or comments were reported regarding formatting issues, apparently because the translators who use these editors can adjust the formatting and layout in the native application of the document they work on, without the TM system having to deal with any of this – the translator just copying and pasting plain text in the TM editor.

8 Productivity enhancement tools

Apart from the previous needs regarding the functionality of translation editors, the surveyed translation professionals showed interest in various tools integrated in an editor that they believe would enhance their productivity during translation. The most popular ones were those that would enable users to:

- apply different locale-specific styles easily, according to the rules of which:
    - ordered lists or tables can be sorted,
    - automated text, such as quotation marks or captions, can be generated,
    - measurement units, dates and time can be converted automatically;
- monitor the translation progress by real-time word counters and progress bars (for example, a user has proposed a small field on the status bar that shows how many words the current document has, with the number being updated as the translator types. Another user has proposed a small counter showing an ongoing count of how many words/lines there are to go in the file or project, complete with match analysis); the word counter is expected to be accurate and it is important that it does not miss out any hidden text (e.g. alt descriptions of images) or text in headers, footers, text boxes, etc.;
- propagate matches throughout the document on the fly, with the user being allowed to specify the type of matches (exact, full, fuzzy, terms only, or from a specific resource) that he wants to propagate;
- perform any kind of global replacements (e.g. replace commas with full stops in figures), applying grammar rules where necessary (e.g. changing the form – plural, singular, feminine, masculine – of nouns and adjectives according to the co-text);
- copy and paste text from other files that a user may open, or webpages;
- copy text from source text to target text;
- add a comment to a text segment (e.g. a query by the translator on a particular term/phrase);
- incorporate terms from a terminology database more efficiently, for example having a letter assigned to each term in the database which can be entered with one keystroke as the user types;
- offer a space for notes of queries and uncertainties on the translation in progress – the notes must stay there on screen, in context, reminding the translator of the problem until he has solved it and deleted them.

Great interest also emerged in an interactive mode of translating where the user by starting to

type his translation automatically triggers off the matching engine, so that matches are invoked by a keystroke. As the user types in his translation, the system then dynamically predicts alternative translations that best complete the part of the sentence being translated, based on the retrieved matches. Separate areas of the editor can present all the different matches. This autocomplete feature is believed to speed up writing time by limiting the number of keystrokes and avoiding mistype errors, as long as it allows for adjustments, i.e. allowing the user to specify the types of matches that he wants to allow autocompletion for. Some users expressed their concern about the system's interference with the typing which can be very irritating when the matches suggested are not the right ones. In such cases, the user must be able to de-activate the feature or set it to allow the auto-completion of exact matches only.

9 User interface

TM systems are interface-intensive applications in the sense that they need to be able to offer a rich visual environment where the available functionality and the various options are clearly displayed, and in which users feel comfortable working. Whether TM users employ a graphical user interface or a web-based interface, they attach great value to the experience that the interface of the system creates for them.

The translators who responded to our survey favoured the idea of a customisable layout in the translation environment, with at least the following visual components: menu bar, main tool bar, tabbed view for project, resources and search areas, source area with its tool bar and target area with its tool bar. The source and target area should be able to synchronise and allow the user to scroll them down simultaneously. All areas should be removable, resizable and displaceable. Search areas should be able to close automatically after use. In addition to these, one should be able to change the contents of the areas depending on what one needs to do while working. The translator toolbar must be powerful and receptive to the translator's needs by allowing her to select and centralise all the activities and functionality that she commonly uses.

In general, all TM users appeared to favour an environment where they could find all the information they needed displayed immediately as they worked without having to navigate around the product. They wished to be able to customise the interface with the windows that they needed, thereby clearing cluttered user interfaces, and to change the default display options and system settings quickly and easily.

The following needs emerged from the comments of respondents on user interface problems and suggestions for improvement:

Clearer user interaction: Writing help messages tightly and making them responsive to the problem is considered crucial for comprehension and efficiency. The same applies to well-explained setting options. If something goes wrong or if something is outside the capability of the software, error messages should be clear, simple, comprehensible and explanatory of the situation, so that the user understands what is going on and what caused the problem. This is crucial for troubleshooting the problem. Quite a few times, users reported: *"it did this… with no apparent reason"*. That is how users get frustrated and give up on a piece of software. Along the same lines, unclear or ambiguous messages about interactive tasks can cause confusion (a typical example of a poor attempt by a popular TM system to communicate with its user is the one offered by one of our respondents: *"I am flummoxed time and again by the following question stated in the negative form: Do you not wish to save the TM? Yes/ No"*).

More ergonomic user interaction: Many of our respondents complained about not being able to use keyboard shortcuts to do things quickly (like entering terms to a glossary, or inserting a suggested match into the translation) and to avoid the constant use of the mouse which can harm one's wrist joints: *"[Name of TM system] is what I call a 'clicking nightmare'. One has to click all the time when working in [name of TM system], which is a real danger for our hands. I'm starting to suffer from RSI and I am convinced [name of TM system] has speeded up the process."*

Some consider the lack of support for shortcuts *"absurd for a text-processing application"*, and would be relieved to see interface dialogs designed for keyboard-only navigation and operation. The possibility of using keystroke shortcuts is also

thought to increase productivity during editing and operating the program itself.

Visible navigation: TM users seem to appreciate a navigation that is clear and natural, with the help of which they quickly see their range of options, grasp how to achieve their goals, and do their work. The navigation should present the illusion that users are always in the same place, with the work brought to them. This not only eliminates the need for maps and other navigational aids, it offers users a greater sense of mastery and autonomy.

Reversible actions: People explore in ways beyond navigation. Sometimes they want to find out what would happen if they carried out some potentially dangerous action. Sometimes they do not want to find out, but they do it anyway by accident. By making actions reversible, users can both explore and make mistakes without worrying about damaging previous configurations. The possibility of undoing any action is also very important for correcting mistakes. The unavoidable result of not supporting 'undo' is that TM systems must then support a number of dialogs that say the equivalent of: "Are you really, really sure?", which are considered annoying and slow people down.

Use of colour: Using colour in a TM interface is believed to enhance the aesthetic appeal of the environment and to make it resemble reality more closely. Indeed, a TM system that uses red for terminology errors or highlights matches in yellow, for example, seems to imitate the behaviour of the translator as if he was translating on paper.

10 Conclusion

The feedback received from the survey clearly suggests that there is no consensus on what would make an ideal translation editor.

Due to the fact that different translators follow different translation processes and have different idiosyncrasies that influence the way they enjoy translating, a near-ideal TM software intended to assist several translators working on the same project or for the same company ought to offer a flexible text editor, either by giving the translators the option to use any of the previously described alternative editor types, or by combining them into a new and versatile design.

Such a system has to offer the possibility to the user of customising and defining the settings for most of its editing features, and allowing the option of enabling or disabling certain features according to the different tasks performed by certain groups of users. Granting customisation facilities for the user interface would also help users to adjust the environment to suit their preferences and work style.

References

Benis, Michael (2007) "Déjà Vu: taking a second look at CAT in a mature market". *ITI bulletin*, November-December 2007.

Biau Gil, José Ramón (2007) "What You See is What You Get? A Pilot Experiment on Access to Visual Information in Translation Interfaces.". Presentation at the 12th Annual Internationalisation and Localisation Conference, 27 September 2007, Dublin, Ireland.

Biau Gil, José Ramón (2005) "'Please translate close to the source text, i.e. deliver a good translation' – Trust and Technology Problems Related to Literal or Free Translation". In *Génesis. Revista Científica do ISAI*. n° 5, pp. 77-82.

Bowker, Lynne and Michael Barlow (2004) "Bilingual concordancers and translation memories: A comparative evaluation." In proceedings of the 20th International Conference of Computational Linguistics COLING-2004, Geneva, Switzerland. Second International Workshop on Language Resources for Translation Work, Research & Training, pp. 70-83.

Bowker, Lynne (2002) *Computer-Aided Translation Technology: A Practical Introduction*. Ottawa: University of Ottawa Press.

Désilets, Alain, Lucas Gonzalez, Sébastien Paquet, Marta Stojanovic (2006) "Translation the Wiki Way". In the proceedings of the *2006 International Symposium on Wikis*. ACM Press, pp. 19-32.

Kussmaul, Paul (2005) "Translation through Visualization". META, Vol. 50, No. 2, April 2005, pp. 378-391.

Pym, Anthony (2003) "Translational ethics and electronic technologies". In Profissionalização do Tradutor, Lisboa: Fundação para a Ciência e a Tecnologia / Uniao Latina, 2004, pp. 121-126.

Savourel, Yves (2001) *XML Internationalization and Localization*. Indianapolis: SAMS Publishing.

Wallis, Julian (2006) *Interactive Translation vs Pre-translation in the Context of Translation Memory Systems: Investigating the effects of translation method on productivity, quality and translator satisfaction*. MA dissertation. School of Translation and Interpretation, University of Ottawa, Canada.