

Language Technology in Translators' Education

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Abstract

In order to prepare future translators for the requirements and challenges of the translation market of today and tomorrow, especially with respect to new technologies in the domain of translation, the LETRAC project aims at supporting the development of Language Technology (LT) related curriculum elements for translator curricula, thus bridging the gap between university translator training and education on the one hand, and the new professional translator's profile emerging from the market needs on the other.

1 Background

The language industry, a business sector in which the translator of today is one of the most important players, belongs to the top ten fastest growing business sectors world-wide. In the translation sector, which for obvious reasons constitutes a large part of this business sector, the need for IT (Information Technology) and LE (Language Engineering) skilled personnel becomes more and more urgent and is still growing. Therefore, it is of imminent importance to prepare future translators for their professional life in such a way that they can fulfil the requirements posed upon them by their future employers and the market itself. This aim should not only be striven for with respect to skills in foreign languages, which is still one of the most essential elements of translators' education, but also by accounting for the new technologies which have changed the professional profile of the translator drastically in the last few years and will continue to do so in the near future.

2 Project Data

The LETRAC project (**L**anguage **E**ngineering for **T**ranslator **C**urricula), which is funded by the EU under the 4th Framework Programme within the LE sector of the Telematics Application Pro-

gramme, aims at identifying the needs in both the educational and the professional context as far as the use of language technology tools and methods in the translation context are concerned.

The LETRAC consortium consists of

- the IAI as project co-ordinator
- six translation departments of European universities (Saarbrücken and Mainz/Germersheim (both DE), Aarhus Business School (DK), Universitat Pompeu Fabra, Barcelona (ES), Universidade do Porto (PT), and Ionian University, Corfu (GR))
- CIUTI (Conférence Internationale Permanente d'Instituts Universitaires de Traducteurs et Interprètes) representing as an international association the most renowned universities offering translator education
- the Translation Service (SdT) of the EC as the largest employer of translators in Europe

3 Scope and Objectives of LETRAC

The main objectives of the LETRAC project are

- to provide a user requirement analysis with respect to language technology (LT) in the translation sector
- to develop a model set of LT elements to be integrated into translators' curricula
- to carry out a feasibility study investigating the impact of introducing the newly defined curriculum elements into existing curricula
- to raise awareness with respect to new technologies in the translation sector
- to make European translator curricula (more) compatible in the domain of LT

The most prominent results of the above activities are described in the following sections:

3.1 Analysis of User requirements

The analysis of user requirements was carried out separately for the educational context, looking at the circumstances and the needs from the academic perspective, and for the industrial context focussing on the professional requirements and aspects of the translation market. In both contexts data were gathered and collected by various methods, one of the most successful ones being the collection and evaluation of data by questionnaires which were addressing various target groups, i.e. in the educational context students, teachers and decision taking bodies have been addressed, and in the professional context questionnaires for big companies, translation agencies and individual translators have been designed and distributed. But also personal interviews and internet research provided useful information.

The **survey of translator university curricula** with a special emphasis on LE related elements and of the resulting educational situations provided a quite enlightening picture of the situation in several countries in Europe as far as LE and IT training is concerned. As a general summary, it could be stated that the situation varies greatly. There are still a considerable number of institutes offering almost nothing or just some basic training in using PCs. Some of them offer a great variety of courses in all relevant fields. But even for the latter the courses are somewhat arbitrary in that what is offered is dependent on expertise available by chance, personal initiatives etc. It is notable that most courses are optional. The assessment of the project's questionnaires confirmed this evaluation of the situation in that most of the students and the teaching personnel are aware of the fact that IT and LE are highly relevant for translators and at the same time a vast majority expresses dissatisfaction with the current situation. Another very relevant piece of information that could be extracted from the questionnaires is that there is a lack of qualified personnel that could teach in the relevant areas as well a lack of adequate teaching material.

The analysis of **user requirements in the professional context** gave a rather heterogeneous picture. The results from this survey among industrial players greatly varied according to industrial sector and country. Big software companies and public organisations, for example, make use of MT

systems more often than other LT users do, and, e.g. in Greece there is less demand on the translation market in general for ‘translation tools’. On the other hand, “national” requirements are becoming more and more blurred, due to the globalisation trend which can be observed in these days also in the translation sector.

In any case, an overall summary confirms that the profession of translator will undergo drastic changes in the near future and that there is a very urgent need to develop and integrate curriculum elements for LE and IT in the training of translators.

In the service sector for instance, translation agencies require besides basic text processing skills advanced knowledge in the area of IT (e.g. internet use), in the application of translation tools (e.g. Translation Memories) and in information management systems (e.g. terminological databases).

In the public sector the focus seems to be slightly different, i.e. IT and DTP seem to be less important, but terminology management, tools for corpus work and knowledge of MT systems is very relevant.

Individual translators reported on various requirements, depending on the customer, but confirmed all in all the findings of this survey in the professional context.

3.2 LT Curriculum Elements

On the basis of the requirements described above, a set of LE and IT related curriculum elements has been developed. These elements, called **LETRAC Curriculum Modules**, have been grouped into three main areas, i.e.

- Module A Introduction to Computer Science
- Module B IT and DTP for translators
- Module C Language Engineering

All in all there are 10 units (module A consisting of 1 unit, module B consisting of 3 units, and module C consisting of 6 units) which have either compulsory or optional status.

The compulsory units (5) are considered to include basic knowledge in the respective domain which should be taught to all students of translation. They represent the minimum knowledge a translator should have working nowadays in this rapidly increasing service sector. Of course, some of this knowledge is not specific to the translation sector, as e.g. DTP, however, respective course elements are included with a special focus on translation related issues.

The optional units (5) are either intended to deepen knowledge already acquired in a compulsory core unit or to give students the opportunity to specialise in a domain which doesn't belong to the basic core units.

The overall size of the LETRAC Curriculum Modules is 230 weekly term hours spread over the whole curriculum. By assuming this size it was intended, as a rule of thumb, not to exceed 10% of the total amount of weekly term hours of an average translation curriculum. However, we are well aware that this percentage cannot always correspond to the real conditions, given the various degrees and university systems in Europe.

In order to allow nevertheless for European compatibility, it was decided to adopt the European Credit Transfer System (ECTS).

Some of the contents covered by the three Modules, respectively ten units, can be part of already existing Master or undergraduate translation studies.

Therefore, if a translation department decides to implement the LETRAC Curriculum Modules, it should be checked first which parts are covered already, either by an identical course or, and this might be the case as well, 'disguised' as another course; for instance, a 'traditional' course on general linguistics is very likely to include elements of e.g. unit 'Language Formalisation', or, in LSP classes, basics of terminology is taught, etc.

In this case, the modular design of the curriculum elements also allows for a partial integration of units into an existing translators' curriculum.

If a translation course or a complete translation curriculum is going to be set up anyway, a complete implementation of the proposed modules ensures completeness and consistency of the Language Technology elements.

3.3 Feasibility Report

Feasibility is essential for models like the LETRAC Curriculum Modules and must be ensured to a high degree. Theoretically sound models and their underlying ideas and principles are of no use if they are not applicable and implementable. Therefore this feasibility report is to be considered an important part of the project allowing for a realistic estimation of the potential of LETRAC.

The feasibility of integrating the above new elements in existing curricula has been investigated with the following aspects in mind at the corresponding teaching sites:

- local and national givens (e.g. personnel resources, national educational system, etc.)
- infrastructure (e.g. hard- and software equipment, computer labs, etc.)
- legal and administrative situation (e.g. status of the department, educational laws, etc.)
- awareness and willingness of the teaching staff and of decision taking bodies
- financial resources

Of course, all these 'feasibility factors' are interrelated to some extent and so, depending on their importance and their combination, they lead to very specific situations. However, the following general findings seem to be true for all participating universities.

The most common problem of the university departments involved seems to be **the lack of funds**, both for the acquisition of hardware/software and for employing teachers. This situation, however,

is valid in general and must be considered a feature which shows no causative relation to LETRAC and its contents.

In descending order of importance the next problem seems to be the (non-)availability of **qualified teaching staff**. Even if there exists a satisfying infrastructure for soft- and hardware as well as the will in the department to include Language Technology into the curriculum, the implementation of the LETRAC Modules may fail due to the lack of teachers who are qualified enough to teach these modules.

Lacking of **awareness and willingness** within the department and its staff seems to be a minor stumbling block, because

- on the one hand, during the project the awareness was increased already considerably, especially in those countries where LT has not yet had its break-through within the translation working environment, i.e. Portugal and Greece
- and, on the other hand, the need for awareness raising at the other participating universities, where LE elements exist in one way or another, was not that important given their already rather open minded attitude towards language technology in the domain of translation.
- Surprisingly, the **legal situation** didn't pose as many problems as anticipated for the implementation, i.e. the introduction, of the LETRAC curriculum modules. This is due to the following reasons. among others:
- Under a given course title, the teachers are relatively free to decide on the content of the course; so, given the availability of software, hardware and teaching staff, it is unproblematic to include LETRAC modules into existing curricula.
- At some of the universities involved, but also at many other European universities, the translators' curriculum is about to be changed; so, the administrative procedure which is necessary to change a curriculum and which, in most cases, lasts very long, has already been initi-

ated, thus providing a good opportunity for the responsible people to include LETRAC modules into the new curriculum which was to be defined and/or modified anyway.

4 Future Perspectives

The expected benefits of the project concern both universities and industry: university courses and training will become more oriented to commercial best practice, the curricula will reach a higher degree of compatibility throughout European universities offering translation courses and, finally, industry will benefit from employing translators with the appropriate skills and knowledge of language technology tools and methods.

All universities involved in the project are planning to integrate the developed curriculum modules at their own sites. Furthermore, it is planned to develop adequate teaching material for the above modules and to validate their actual content by teaching these modules.

But also other European universities offering courses and programmes for translators who want to modernise their curricula and to adapt them to the requirements of the translation market are potential users of the outcome of the project, mostly of the LETRAC Curriculum Modules. Especially those universities which are currently re-structuring their syllabuses can exploit the potential of the LETRAC results immediately.

In order to allow these other interested universities to make use of the LETRAC Curriculum Modules as well, it is planned to establish a LETRAC university network for the exchange of students and teachers, thus creating a common platform and discussion forum for further activities to be undertaken.

A further perspective for exploiting the results, i.e. for the use of the newly defined curriculum elements, is professional continuing training. Within this context these elements may well serve for teaching language technology tools and methods to translators who want to be up-to-date and keep track as far as new technologies in their working environment are concerned. The BDÜ as the pro-

fessional association of the German translators and interpreters strongly supports this kind of initiative, since they are well aware of the need for such re-training activities.

As another extension to the core project, it is envisaged to investigate the relationship of the LETRAC Curriculum Modules (in terms of content) to tangent domains, e.g. Technical Writing and Localisation, thus accounting for the broadened field translators work in nowadays, and thus creating synergies with similar efforts undertaken for modernising the education in these domains.