

At Last Translation Automation Becomes a Reality: an Anthology of the Translation Market

Jaap van der Meer
Cross Language N.V.
Ghent
Belgium

jaap.vandermeer@crosslang.com

Abstract

This document gives an overview of the history of the translation industry. The argument is made that the current changing business demands make machine translation an economic necessity. Fifty years after research for machine translation commenced translation automation finally seems to become a reality. The deciding factor is perhaps less so the improvement of the technology but rather the insurmountable need for translated content. To understand the shifting demands for translation through the years we distinguish three phases in the history of the translation industry: the translation phase, the localisation phase and the globalisation phase (Cadieux and Esselink).

1 Translation phase

The translation phase starts with the industrialisation of translation services in the **nineteen fifties**. The first washing machines, radios and television sets required multilingual booklets.

Agencies were set up by free lance translators, who often were political refugees after the turbulent times of the World War and its aftermath. In addition to the user instructions, the agencies would work on “overseas” trading contracts and the translation of diplomas for the flows of emigrants to the New World. Translation service

was not so time-critical. The means of delivery was regular post or telex. The primary concern for clients was cost. Judging from the multilingual booklets we still get with our home appliances, quality was and is of the least concern to the publishers. After all, who would really look into these user instructions. And if they did, the only concern was really whether the user would be able to find out how defrost the refrigerator. The translation market blossomed and many new agencies were formed in the **sixties and seventies**. They all remained relatively small and serviced a close group of local customers. The main means of business acquisition was through yellow page advertising. Clients would prefer to work with an agency around the corner, even if they would hardly ever meet the owner of the agency face to face.

2 Localisation phase

The arrival of the desktop computers and end-user software products marked the first big change in the translation market. In the **mid-eighties** new industrial clients emerged from the software industry. Their user instructions were not just a small booklet, but big manuals of one thousand pages or more.

The thing that complicated the matter was that there was not really a product that went along with the manual. In fact the manual was the product. Consumers were not used to this new concept of “software”, a product that you could not really see or touch. The manual therefore became the most important part of the software product. Yet another complication was that a good part of the information that required translation was

embedded in the software product. User instructions and messages would appear on the screen of the computer. And obviously these texts should be fully consistent with the translated text in the manuals. It is no surprise that new specialised translation companies were established who focused in on the requirements of these new clients from the software industry. The new players took special care that their skills would not be confused with ordinary translation services: they called themselves *localisation* companies. A few existing translation agencies successfully converted themselves into localisation companies. But most of the successful localisation companies were upstarts in the **late eighties and early nineties**. They grew much faster than the first generation translation agencies because the work volumes were so much bigger in the software sector. Their activities expanded also outside the pure translation activity. They acquired skills to do complete page lay-out, graphics and also testing and engineering work to ensure that the translated products would still function properly. As the volume of work grew bigger and the activities became more complex, they also needed project management skills to monitor project progress and timely delivery.

The big contrast from a customer perspective between the translation phase and the localisation phase is the emphasis on quality. Translation quality was hardly important for the manufacturer of television sets and lawn mowers, but now for software publishers quality was of the utmost importance. Consumers would not buy the software product if the manual was poorly written. The primary motivator for the software publishers to localise was to generate additional revenues with the products that were already developed for their home markets. A badly localised product would get a bad review and would not sell very well. Software publishers would carefully select their target markets and calculate their return on investment based on the number of products they could sell in the German, French, Japanese or other foreign language markets. The dependence on quality caused a higher concentration of services with fewer providers of services. Customers would worry less about the vicinity of the agency to their own offices and more about the quality reputation of the company they would work with. Also customers were concerned about the build-up of

overhead in their own organisations for the management of localisation activities, which after all was still considered to be non-core business. The localisation industry went through a phase of mergers and acquisitions in the late nineties as a result of these market powers. However at the same time we see two other developments that seem to obstruct the road to prosperity for the few big and global localisation companies. First of all the localisation skills are not so unique anymore: many small agencies have now become very computer and localisation literate, and they are competing with the large established localisation companies. Second we see a shift in the buying criteria from customers. Cost becomes more important than quality. Software publishers do not ship manuals that often anymore. Consumers are now used to the concept of software and they are happy to download the software. Instead of consulting manuals they rather call a call center or check a web site to find an answer to their query.

3 Globalisation phase

The **beginning of the new millennium** also marks the beginning of the globalisation phase for the translation and localisation market. The pervasive global presence of the Internet has caused a big change in the demands for localisation work. Companies' interests are shifting away from individual product revenue to market share. The earlier they access a new market the more market share they can obtain. And more market share means more leverage and sustainable revenue streams. What is changing for the localisation industry is the volume and the time.

It is no longer sufficient to translate the product documentation and localise the software, all enterprise information must be adapted to the global marketplace in which the company wants to be seen as a market leader. Current and future clients will learn everything about a company and their products through the company Extranet. They will buy online, get support and get training online, they may even become a member of a loyalty program of the company. At the same time the company will employ workers from many different countries who connect through the Intranet. They need to speak with "one voice" to the customers, they need to be trained and supported in representing the company's products and services,

and the company's distinctive philosophy. With market share as our single biggest goal, corporate branding becomes so much more important. And finally the company becomes more and more dependent on suppliers as outsourcing seems to be the way to go for most corporations. Suppliers become almost as dependent on the company's resources as the employees. And suppliers will also be spread out around the world. Quite likely the company will maintain a secure web site for supplier management.

Sofar the translation and localisation industry has been dealing with product documentation only. Product documentation consisted of pre-sales materials, like brochures and advertising and after sales materials, like user documentation, software user interface, dealer information. In the globalisation phase the volumes of material to be localised will grow to insurmountable levels. Companies will need to maintain multilingual versions of their knowledge bases, training materials, reports, proposals, human resource documents, etceteras. The product documentation represents probably less than 20% of all the text based information repositories that need to be localised. (Frauenheim, 2003).

The other change is the time factor. Customers' needs are instantaneous. The quicker localised content can be made available, the more successful the company will be in winning new customers and retaining existing customers. The translation and localisation industry is facing an impossible task in this new globalisation phase. Five times the volumes must be translated in practically no time. (Van der Meer, 2002).

Realising that localisation is strategic for the company, more and more corporations are starting to look at integrating the localisation process in the enterprise. Both from a functional and an organisational point of view translation and localization activities have always had a very isolated position in companies. This is now changing. Corporate decision makers are starting to support multilingual communication initiatives. Localisation becomes an additional dimension in enterprise-wide information technology programs. This means that localisation service providers now also need to become experts in XML, content management integration and globalisation management software.

4 Cascaded supply chain

The evolution of the translation and localisation industry through the three subsequent phases has led to a cascaded supply chain. It is not uncommon that a localisation project goes through three to four different levels of subcontracting.

The localisation department in a customer organisation hands out a 20 languages localisation project out to the global multi-language vendor (MLV). The MLV analyses the project, sets up the project plan and ships the project to smaller multi-language vendors or single-language vendors who take care of linguistic testing and quality control. But quite likely they will contract out the actual translation work. Interestingly enough this cascaded supply chain has formed itself more or less around the phases of the evolution of our industry. The translators at the bottom of the supply chain are still doing the translation work. The larger regional and local localisation vendors have taken on the tasks of engineering and managing the translation memory tools and the quality tracking. While the global MLV's claim their value in this process as the process experts and high level project managers. Quite naturally every switch in this chain costs time and money. A closer examination of the activities in the entire supply chain shows that there is a tremendous overlap in tasks between the different actors. The customer will perform some level of quality control, project management, translation memory management, and so will the global MLV. The regional MLV and the local SLV will also perform quality control and project management tasks and they will also maintain translation memory databases for the project. And finally the translators will of course control the quality of their work and work with translation memory tools.

5 History of translation automation

The idea of automating translation has fascinated people for a long time. In 1954 the first experiment to have a computer fully automatically translate a text from Russian into English was called a big success. And within a few years research teams were put to work in multiple places around the world to let computers crack this big problem. The initial euphoria turned into a great disillusionment

when in 1966 the ALPAC report concluded that fully automatic high quality translation was not likely to happen in the foreseeable future. However government agencies continued to test and use machine translation for content scanning and translation support. At the start of the localisation phase in the mid eighties the debate about machine translation for commercial use lighted up. Customers and translators reviewed the few commercial machine translation products that were available at the time. The sudden big volumes of translation work urged some level of automation of the translation process. But as the quality standards were very high at that time the option to use machine translation was rejected. The idea was born to let computers help the human translators to store translated segments and terms in a database and offer them for reuse when applicable. The first so-called translation memory tools came on the market in the early eighties. They were sold as productivity tools for individual translators. Some of the biggest clients of the localisation industry adopted TRADOS Translator Workbench and imposed it on their vendors. Within a few years TRADOS became the de facto standard for the localisation industry. Although today well over 30,000 of these packages have been sold, translation memory software has also displayed its severe limitations to the enterprise customers. In a cascaded supply chain with sometimes over one hundred translators working on a project into one language for one customer it is very inefficient to work with desktop productivity tools. Every contractor and the ultimate client maintain copies of the translation database. Discrepancies are inevitable, even though special dedicated functions are created for cleaning, copying and updating translation memory files at every hand-over in the process.

Shorter updating cycles and the growing complexity of localisation work made it necessary to automate the process. It became apparent that the cost of managing the process exceeded the cost of actual translations. New software products were introduced in the localisation industry in the late nineties that would manage the entire workflow and integrate translation memory functionality. This software was called globalisation management software (GMS). The first GMS products however were too rigid. They forced customers to work in a strict predefined process

and locked them in with one or very few translation suppliers.

In short, fifty years of history in the translation industry and fifty years of research and development in translation automation have generated very few results. The key inhibitor for translation automation has been the lack of a quality standard. People are emotional about language and instinctively go for the maximum quality level without being able to measure it. But that is about to change.

6 GIL market

According to an IDC survey of the globalisation, internationalisation and localisation (GIL) market the industry is growing from \$4.2 billion in 2001 to \$8.9 billion in 2006, representing a annual growth rate of 16.3%. Localisation and translation services form by far the largest part of this market with 69.8% of the total or \$2.9 billion in 2001 and growing to \$5.8 billion in 2006, representing an annual growth rate of 14.6%. IDC also distinguishes a sub-sector for globalisation strategy and internationalisation consulting, which they expect to grow faster than the localisation and translation services sector, reaching a total of \$2.9 billion in 2006, or 39% of the total. The fastest growing sub-sector will be cross-lingual applications. Representing less than 1% of the total market in 2001 or \$42 million, IDC expects this sub-sector to grow to \$193 million by 2006, or 35% annual growth. (IDC, 2002).

7 Big changes

Until recently localisation was hardly a strategic issue for corporations. For most companies it was just seen as the cost of doing business overseas. The ROI calculation was easy to make: the additional revenue of a localised product must supercede the cost of localisation. Corporate decision makers are now realising that the translation of product documentation is far from enough to compete in the global market. They are facing the challenge to globalise their companies in their entirety. This will lead to changes in the GIL market that will challenge the capabilities and expectations of the current suppliers, large and

small. First of all customers will be looking for hybrid solutions of human and machine translation. Depending on the required quality level texts will be routed to a human translation supplier or to a machine translation engine. Customers will adopt simple quality metrics (like the SAE J2450 standard: SAE 2002 and Rychtyckyj, 2002) to measure the quality of translations. The acceptance criteria will be expressed in an exact scoring rate according to this metric. Deployment of machine translation engines will lead to rapid improvement of the quality of output in a customer-specific environment, as all not-found words will be coded and added to the machine translation dictionaries. Customers in vertical industries will meet and start discussing unified terminologies. The Localisation Industry Standards Association (LISA) was founded in 1990 to do exactly that: standardise computer terminology in multiple languages. However it appeared to be too early days at that time. But now corporations recognise the value of standardisation. Unified terminology combined with the XLIFF standard and the upcoming Translation Web Services (TWS) standard will lead to a much more transparent industry. As a result we will see open marketplaces where customers can search for the fastest, most economic supply of translation that meets the standard quality scoring rate.

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