

## Machine Translation Market and the Role of Lingvistica '98: An Attempt of a Critical Analysis

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### INDUSTRY BACKGROUND

#### *Translation systems*<sup>1</sup>

Two generations ago, the general public had little need to be able to communicate in several different languages. Business was for the most part localized, and the difficulty of travel and communication made many parts of the world inaccessible to each other. However, with the advent of globalization, all of this changed. The rise of communication through the Internet has allowed people from the far reaches of the Earth to communicate with one-another in a matter of seconds. Consequently, there has been a corresponding rise in the need for language translation. In fact, projected figures for 2006 suggest that the “worldwide human translation market will account for \$5.7 billion, and the machine translation for \$117 million”<sup>2</sup>.

Systems offering this translation can take on two forms: software or website-based systems. Firms selling machine translation software sell an actual product that can be purchased by consumers, either through a website or a bricks-and-mortar store, for repeated use. Firms offering translation through their websites cater to one-time or sporadic users of the technology, and offer translation service on a single document or project basis. Both of these forms of MT are forecasted to grow over the next 4 years, however the software market is expected to earn higher revenues overall<sup>3</sup>. There are four types of translation systems presently in demand: dissemination systems, assimilation systems, interchange systems and information access systems. The demand for machine translation (MT) for dissemination purposes has been largely satisfied since the 1960's when this type of translation software was first developed. This traditional type of system translates text with the quality that would be achieved by a human translator. Assimilation systems translate with inferior quality and style, however they do so much more quickly. This type of translation is useful for users who wish to extract the essential content from a document, and is

comparable to a dictionary translation. The third type of translation software, the interchange system, is either used for one-to-one communication or for unscripted presentations. This can be useful for telephone or written communication, or for diplomatic exchanges. The last type of system, used for information access, is applicable for the extraction of multilingual information and retrieval.

Lingvistica '98 Inc., as well as many other machine translation systems manufacturers, is primarily in the business of providing multilingual translation systems for dissemination purposes. This technology strives to reproduce the style and sentence structure of the target language. There are three general client bases that make use of such software: Governments, businesses and individual consumers.

Consumers require the lowest quality of the three segments, however the discerning consumer will still opt for a high-grade translation system. Products are marketed differently to each segment based on services offered in the translation software package.

Governments need translation software integrated into tutorial systems for use in their public schools. Businesses require software for localization as well as translation to satisfy their needs. Consumers want software that is capable of translating simple documents and websites while maintaining the original format of the text. The need for translating websites in this segment is an important one. "Only 6 percent of the world population speaks English as a native language (16 percent speaking Spanish), while about 80 percent of all Web pages are in English"<sup>4</sup>.

#### COMPANY BACKGROUND

Recently after the collapse of the Soviet Union and the emergence of countless possibilities for those who wanted to establish their own private business, *Lingvistica '93* was founded in Kharkov, Ukraine, by Dr. Michael S. Blekhman. There, the company established itself as one of the world's leaders in the market of translation software and dictionaries exporting to a number of countries all over the world. In the year of 1998, the company's headquarters moved to Montreal, Canada, and a corporation named *Lingvistica '98* was founded.

#### *Partners and Employees*

Even though, as mentioned before, the main office of *Lingvistica '98* is located in Montreal, Canada, the corporation has partners and employees in a number of other countries, such as Ukraine, Germany, Holland, USA. Corporation's partners act as the dealers and get royalty of every product they sell (the amount they receive as a royalty fee depends on the contract with *Lingvistica '98*, and varies accordingly).

*Products Offered*

Lingvistica '98 offers a number of products: translation systems; dictionaries; clipart; and tutorial systems. The corporation's products are user-friendly, and allow for modification by the user. For example, every dictionary can be updated in quite a simple way: one can easily add words to the dictionary or even create them from scratch. Moreover, Lingvistica '98 offers product updates for free (when the difference between the previous version and the new one is not major) or with a substantial discount (when the difference between the two versions is significant).

*Languages Covered*

Lingvistica '98 develops products for a number of different languages. As a former eastern-European company, the main focus of Lingvistica '98 is on the Russian and Ukrainian languages. However, products for other languages, such as English, German, Azerbaijani, Turkish, Serbo-Croatian, Persian, Polish, Arabic are offered by the corporation. The company is always looking to diversify its portfolio by covering more languages and developing new programs.

*Currently Under way*

Together with its programmers and designers in Ukraine, Lingvistica '98 Inc. is currently working to develop breakthrough products: a German tutorial system for Russian-speaking users, and a Russian tutorial system for English speakers, which would include voice recognition and allow for direct communication between the program and its users. The systems would act as a platform for the development of other similar products for other languages.

Translation systems for the Dutch and Norwegian languages are currently under way, as well.

*Problem Statement*

Lingvistica '98 has already established itself in the market by providing competitive quality products, timely and courteous customer service. However, consumer awareness about the corporation's products is not high, and hence neither is the company's customer base. The reason for this seems obvious: Lingvistica '98 does not have a marketing plan, and bases its decisions on common sense alone, with little analysis or research. Target segments have not been clearly defined, and for that reason the web site is not segmented and not appealing to consumers. Moreover, the only kind of promotion the corporation engages in, are trade shows, which seems to not be sufficient. Besides, the only two ways in which the company sells its products are through the web site (which, as mentioned above, needs reconstruction) and its dealers who decide where to place the products, how to set prices, and so on.

It seems reasonable to state that Lingvistica '98 should design a marketing mix plan in order to target its consumers in a more efficient way.

#### TARGET MARKET

As stated above, there is no clear division of the target market into segments so far. Lingvistica '98 targets everyone who would need a translation system, a dictionary, or a tutorial system. One has to take into account, however, the different age of the company's customers, different place of residence, and different application of a product (e.g. translators would use the translation system to aid them in their job, whereas people who correspond with a representative of another country, would use the product simply to understand what the person in question wrote to them). Incorporating these differences and defining target segments clearly would aid Lingvistica '98 in the improvement of its web site and would be more attractive to its segments.

#### S.W.O.T.

Strengths	Weaknesses	Opportunities	Threats
Established in the market	Web-site: poorly done, not segmented	Globalization: people travel more, enjoy learning about other countries, including foreign languages	Increasing competition
Diversified portfolio: different languages and products	Little marketing know-how	Canada: number of translators growing	Finns competing in other language families expanding their portfolio into Lingvistica 98's target market
Exporting into a number of different countries	Little control over the partner's actions: can jeopardize brand image	Cross-cultural marriage is becoming increasingly popular (translation systems could ease the correspondence: tutorial systems could help learn the language)	
Employees in the third-world countries (Ukraine) allow for reduced costs; at the same time, these are the same employees that have worked Lingvistica '93: hence, higher trust and security	Current partners could be future competitors (trade secrets shared)		
Partners allow for wider reach of product distribution			

## COMPETITIVE ANALYSIS

In addition to the function, quality and price of the translation software, the competition in this industry is divided along languages offered. Regardless of the consumers' preference of a translation system based on any of these three criteria, if the system does not offer translation services in their target languages, then it is useless. The market is therefore subdivided into the following language groups<sup>5</sup>: African languages, Asian languages, Central and Eastern European languages, Latin American languages, Middle-Eastern languages, Scandinavian languages and Western European languages. Since Lingvistica 98 offers translation systems in Eastern European, Western European and Middle-Eastern languages, the list of their prospective competitors is considerably reduced<sup>6</sup>.

These remaining competitors are still numerous, however, as the barriers to entry into this industry are low. Research and development costs consist of the salaries of a linguist and one or more programmers to develop the system. Capital costs can be as low as zero if the firm chooses to offer translation through its website, depending on the location of the office. All of these factors have led to the creation of a very fragmented market for machine translation. As such, it is nearly impossible to enumerate and evaluate all of Lingvistica 98's potential competitors. The major players, however, pose the greatest threat since they have most clout in the industry. These firms are as follows:

<b>Central &amp; Eastern Europe</b>	<b>Western Europe</b>	<b>Middle East</b>
<ul style="list-style-type: none"> <li>• Translation Experts</li> <li>• Trident Software</li> <li>• Ectaco. Inc.</li> <li>• Smart Link Corporation</li> <li>• Softissimo</li> </ul>	<ul style="list-style-type: none"> <li>• Alphaworks/IBM</li> <li>• Amikai</li> <li>• EPI-USE Systems</li> <li>• Traparent Language</li> <li>• Language Force</li> <li>• Translation Experts</li> <li>• Lernout &amp; Hauspie</li> <li>• Smart Link Corporation et. al.</li> <li>• Linguattec</li> <li>• Softissimo</li> <li>• SYSTRAN Software</li> </ul>	<ul style="list-style-type: none"> <li>• Sakhr Soft</li> <li>• CIMOS Company</li> <li>• The Computing Lab</li> </ul>

Based on this table, it quickly becomes obvious that the Western-European MT market is becoming increasingly saturated, and therefore it would be harder for Lingvistica 98 to be competitive. Lingvistica 98 has already established a strong position in the Central and Eastern European markets,

and the number of competitors is still relatively low. In the Middle Eastern market, the firm's latest endeavor, the competition is the least developed of all the three markets where Lingvistica 98 has established a presence.

#### WEB-SITE ANALYSIS

##### *Security*

Undoubtedly, the World Wide Web is gaining increasing popularity with an increasing number of individuals using it. In Canada alone, eight million people, almost two thirds of the population, use the Internet; a 19% growth in just one year. Acquiring goods and services on the Web, is also becoming popular with almost 2 billion dollars spent by the Canadians only<sup>7</sup>. At the same time, however, people are hesitant about providing the personal information on the net. Only 29% of the Internet user ages 18 and over say they trust Web sites that sell products and services<sup>8</sup>. Security is of concern, and those that shop on the Internet have to be careful as to where they provide their information (such as credit card number, for example). Web-stores that ignore the security issues and don't look professional run the risk of losing sales.

This may be one of the major components that the Website of Lingvistica '98 is lacking. The company does not reassure their customers that they should have no concerns when sharing their information on the company's Website. Moreover, the e-mail address provided on the Website for those users that wish contact the company is a Canada.com address. It seems that a free e-mail account diminishes the company's credibility in the eyes of its customers.

On its website, Lingvistica '98 includes photos and information on some of its employees. Since pictures and information of only few people is provided, this creates an impression that there are no other people working for the company. Customers, then, may be more hesitant to purchase (especially online) from Lingvistica '98 and turn to its competitors who may be perceived as larger companies.

##### *General Layout and Website Structure*

With so many businesses going DOT COM, and with the increasing competition facing Lingvistica '98, consumers have a lot of choice when it comes to deciding the products of which company to choose. Web site design is, hence, of great importance. It has to be eye-catching and at the same time to look professional. Consumers have to be able to find the information they are looking for easily and fast. Detailed explanation of each product should be provided, together with images portraying what the product looks like.

One of the strengths Lingvistica '98 has regarding its Website is that it is easy to use and takes little time to download saving time to its users. Yet, the site could use some editing in order to look more professional and more organized allowing its users browse through the products that belong to the same category in an easier way.

#### *Payment Options*

Lingvistica '98 accepts different kinds of payment: credit card, cheque, cash, money order. However, it is quite complicated for a user to make a payment with credit card on the website of Lingvistica '98. One is re-directed to the company's partner's website, and has to find one's way through in order to finally make the payment. This is too complicated, and can drive many clients away from making a purchase.

#### *General Feel About the Website*

A Website allows companies convey a special feeling, a special image, to their customers. Lingvistica '98 could use this to their advantage. Unfortunately, so far it has passed on this opportunity. Its Website does not look as a languages-related site, which if it did would undoubtedly be more appealing to consumers.

Little things, such as a date missing on the first page ("last modified...") or a link to tripod.com (on the bottom of the first page) with misleading information on the site's statistics, take away from the overall impression of the Website.

#### WEBSITE RECOMMENDATIONS

##### *Security*

There should be a separate section on the website dedicated to consumer security when dealing with Lingvistica '98. In this section, the company's address, phone number, and an e-mail (not from a free account) should be provided. Consumers should be encouraged to contact the company prior to making a purchase to make sure that it existed and at the same time to establish a human contact which could hence decrease the insecurity they may experience from dealing with a machine.

The section on *Who is Who* should be kept giving extra information on where the employees of Lingvistica '98 are located. However, no names or photos should be provided to keep the website's look professional.

##### *General Website Structure and Layout*

An important thing that seems to be necessary on Lingvistica '98 website is a "search box", which would allow customer find and access necessary

information faster. For a returning customer it could be of great use to help him/her check for updates or new information on a product they have purchased in the past.

The third, and most important, recommendation as to the structure of the website is the inclusion of the credit card payment option on the Lingvistica 98 website. It seems reasonable to assume that this relatively simple addition to the website would decrease the amount of people drawn away from purchasing a product on the company's website due to lack of simplicity and of confidence.

#### *Additional Recommendations*

In order to make Lingvistica 98's website more structured and user-friendly, it would be highly beneficial for the firm to group its products according to language family. Moreover, the products in each language group should be subdivided into categories according to the product type (ie: dictionary, translation system, tutorial system, etc.). By allowing the users to segment themselves upon entry to the website, Lingvistica 98 would be able to target them more effectively.

#### FINAL RECOMMENDATIONS

##### *Western-European Market*

Since the Western-European market has reached the point of saturation, as mentioned above (please see the *competitive analysis* section of this paper), and it would be harder for Lingvistica '98 to achieve high competitiveness in this market. Therefore, the company should not concentrate all (or even most) of its efforts on this market and instead should look into new opportunities in the emerging markets.

##### *Central and Eastern-European Markets*

Due to the fact that Lingvistica '98 has already established strong brand equity in these markets, it has a considerable competitive advantage in this respect. Therefore, it seems reasonable for the company to concentrate on defending its position in the market by occasionally introducing improvements to their existing product offerings, and by developing new products over time.

##### *Middle Eastern Market*

This market has the lowest level of competition out of all the markets discussed in this section of the paper, and thus presents the most attractive opportunity for entrance to Lingvistica '98. Coupled with the fact that the



Middle Eastern market contains a large population, the company should not pass on the opportunity of targeting this area. Currently, as mentioned earlier in the paper, Lingvistica '98 has products for the Arabic and Persian languages. However, the product offering (dictionaries only) is extremely limited and does not yet allow for the company to take full advantage of this market opportunity. We recommend that the firm concentrate its efforts on diversifying its portfolio of the Middle-Eastern language-based products.

#### *Promotion*

As mentioned in the earlier sections of the paper, Lingvistica '98's main promotion vehicle is trade shows and trade magazines. Although this is an effective form of advertising, the firm should expand its promotional strategy. Once the website is updated according to the suggested recommendations above, Lingvistica '98 should concentrate on advertising its website since it is a cheaper way of advertising (as compared to mass media). The company should take pains to submit their website address to major search engines. Moreover, the firm should consider promoting its translation software and dictionaries to the numerous translation companies in Canada and abroad. This would be an effective way for the company to access distribution channels they would not be able to reach through their website.

Offering discounts, sweepstakes and coupons might be a way to entice new customers to use the company's products.

In addition, Lingvistica '98 should look into targeting additional subdivisions of the consumer segment. These may include community clubs based around a particular culture (and hence, a particular language group), and other groups of the kind.

#### *Product Placement*

Although selling their products through the website is an efficient way to generate sales, it is extremely important for Lingvistica '98 to place their products in the most retail stores possible. This would not only allow for higher visibility and reach, but also for higher company credibility on the website. Since clients would be given an option of purchasing a product in a store as opposed to on the web, it would give them higher confidence in the credibility of the company as well as giving them the option of trialability.

EXHIBIT 1<sup>9</sup>

Website vs. Software Localizaton Revenues  
 World Market: 2001 to 2006  
 (Source: Allied Business Intelligence Inc.)

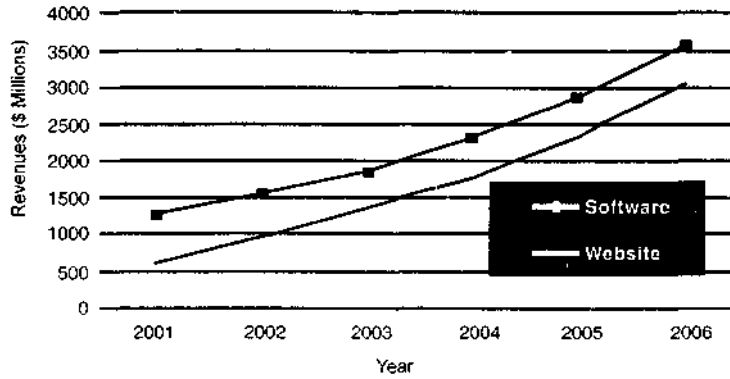


EXHIBIT 2<sup>6</sup>

Language Group	Software	Developer
<i>African</i>	CyberTrans	EPI-USE Systems
<i>Asian</i>	alphaWorks MT AmiText EWTranslate GoToWorld InterTran Logovista Power Translator	alphaWorks/IBM Amikai EWGate Language Force Translation Experts Language Engineering Lernout & Hauspie
<i>Central &amp; Eastern European</i>	InterTran Language Master and L-Master 98 PARS Poltran PROMT Reverso	Translation Experts Trident Software Lingvistica 98. Inc. Ectaco. Inc. Smart Link Corporation and PROject MT Softissimo
<i>Latin-American</i>	InterTran	Translation Experts
<i>Middle-Eastern</i>	Tarjim English <>Arabic MT MLTS InterNet Translation Service Shiraz (demo)	Sakhr Soft CIMOS Company The Computing Research Lab
<i>Scandinavian</i>	GoToWorld InterTran	Language Force Translation Experts

<i>Western European</i>	alphaWorks MT AmiText CyberTrans FreeTranslation GoToWorld InterTran Power Translator PROMT  PT-Online (e-translationserver) Reverso SYSTRAN	alphaWorks/IBM Amikai EP1-USE Systems Tranparent Language Language Force Translation Experts Lernout & Hauspie Smart Link Corporation and PROject MT Linguattec  Softissimo SYSTRAN Software
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## NOTES

- 1 All information from: <http://www.foreignword.com/Technology/art/Hutchins/hutchins99.htm> and interview with Michael Blekhman.
- 2 [http://www.the-infoshop.com/press/ab3365\\_en.shtml](http://www.the-infoshop.com/press/ab3365_en.shtml)
- 3 See Exhibit 1 for graph.
- 4 <http://zdnet.com.com/2100-11-511223.html?legacy=zdn>
- 5 Obtained from <http://www.lai.com/temain.html>
- 6 See Exhibit 2 for the complete list of major competitors by language group.
- 7 [www.statcan.ca](http://www.statcan.ca)
- 8 <http://www.dratliff.com/>
- 9 [http://www.the-infoshop.com/press/ab3365\\_en.shtml](http://www.the-infoshop.com/press/ab3365_en.shtml)
- 10 <http://www.lai.com/temain.html>

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