

MT and the Swiss language service providers: an analysis and training perspective

Elia Yuste

Institute of Computational Linguistics
University of Zurich
Winterthurerstrasse 190
CH-8057 ZÜRICH
Switzerland
yuste@ifi.unizh.ch

ABSTRACT

Switzerland is perceived as a highly multilingual country, with four national languages and a solid translation tradition in official, administrative and corporate settings, now even extended to include English. A research case study was set up to investigate the understanding and use of translation and language technologies by Swiss language service providers. This paper highlights some findings, particularly focusing upon the issue of translation automation processes in multilingual documentation production, with a view not only to spot preconceptions or knowledge gaps about MT, but also to suggest some training principles. We will argue that training activities ought to present MT systems as key aiding components of translator workbenches and, their output, as a valid linguistic resource for further human refining, if necessary. Moreover, in line with the idea that MT can be part and parcel of multilingual content production cycles, we will look at the interaction of MT with controlled language, CAT tools and terminology work. In sum, we will make explicit the usefulness of MT against the widespread prejudice that investing in MT does not return any benefits given the ‘low and hilarious quality of its output’, as quoted by most of the interviewees of our case study.

Keywords: multilingual documentation production, automation of translation processes, MT, language technologies and applications, controlled language, interactive workflow, end-user vs. “active” user, customisable translation technology training.

1. Introducing the Swiss language framework

1.1. Multilingualism and language proficiency in Switzerland

Despite its small size, Switzerland is renowned for being culturally diverse and multilingual¹ - with four official languages: three major European ones, i.e. German (63.9%), French (19.5%), Italian (6.6%), plus the minority endangered Rhaeto-Romantsch (0.5%). Statistics also show a growing number of native speakers of other languages (9.5%), such as Slavic languages, Spanish, or Portuguese, particularly in melting pot areas such as Zurich,² Switzerland’s commercial and financial hub.

In general, foreigners assume that in such multilingual scene, most Swiss citizens are to be polyglots and proficient in 3 of the 4 official languages, plus English. However, this assumption is far from real. The average Swiss speaks 1 of the official

languages (or rather, a local dialect, especially in the German part), can often understand another national language (though it is not actively used), and may speak good English – particularly younger generations or workers in export trade, banking, and information technology sectors. English has undeniably become a lingua franca (‘Swinglish’³) and the working language of Swiss higher education and research⁴ institutions.

1.2. The Swiss Translation Tradition

As part of the respect for the other national cultures and languages, one is entitled to receive their official and commercial correspondence in either German, French, Italian, or also English, no matter which canton one lives in. This gives an idea of the impressive budget that is devoted to translation in Switzerland every year.

In administrative contexts, documentation must be produced, usually by trained linguists, in the canton and/or country

¹ For more info, see www.schweiz-in-sicht.ch/en/4_fod/4_fs.html.

² Proportion of different mother tongues in Zurich over the last decades: www.stadt-zuerich.ch/stat_amt/uebersichtstabelle/bevoelkerungsstruktur/muttersprache.htm [in German].

³ Source: SWISS INFO
www.swissinfo.org/sen/Swissinfo.html?siteSect=201&sid=906582

⁴ *The Presence of English at Swiss Universities*, by Urs Dürmüller (University of Bern).
members.tripod.com/~Duermueller/AcadE.html

official language(s) accordingly. Since August 2002, the Swiss Government has enforced the incorporation of an English version in official countrywide communications. To this end, an English translation unit⁵ has been created in Bern to respond to the massive amount (25,000 pages, in 2000) of translations into what, with some polemic, is now widely accepted and promoted as the new *de facto* official Swiss language.

As for the corporate sector, Swiss companies willing to pursue and ensure a global (Brändle, online ref.) presence are keen to produce their written and online documentation in English, together with German, French or Italian.

All these factors explain the fact that both canton and federal institutions as well as (large) corporations in Switzerland own an in-house translation department or resort to translation agencies and freelancers to outsource their constant demand for language work.

Such steadily growing need for multilingual documentation production is also opening up new career paths in terminology, software and Web site localization, technical writing, content management, etc. and forcing local training institutions to offer more market-oriented language degrees and postgraduate or vocational certificate programmes⁶, with a technology component.

2. Project justification and paper rationale

We have seen that translation mediated communication (or TMC, O'Hagan & Ashworth 2002) is assumed as commonplace and of utmost importance for Swiss administration and industry contexts. A research project, *Translation Technology in a Swiss Context*, was set up last year to assess the extent to which translation processes are automated or assisted by technology in Switzerland. The ultimate goal of the study, conducted by the author in the form of an online survey⁷ (see

⁵ Source: SWISS INFO

www.swissinfo.org/sen/Swissinfo.html?siteSect=111&sid=1056513

⁶ E.g. New Certificate in Terminology at the *Zürcher Hochschule Winterthur (ZHAW)* --- in German:

wb01db.zhwin.ch/servlet/ShowCourse?page=list&KursNr=L2

⁷ This online questionnaire was originally inspired by the ELDA's Gema project survey. It

Appendix), interviews, on-site visits, etc., would be to design effective and adaptive translation and language technology training solutions for the Swiss corporate scene.

From our standpoint, MT is part of a dynamic workflow where other technological components, such as controlled languages, computer-aided translation (CAT) tools and electronic language resources (LR), also belong. The paper will however show that, unfortunately, this is not yet a widespread thought among Swiss language service providers. In response to our project findings especially concerning MT, we will suggest some training principles that look at multilingual content lifecycles and aim at optimising documentation production chains.

Our reflections can also be of use to other multilingual communities or organisations undergoing internationalisation processes.

3. Participants profile, core research areas and summary of findings

3.1. Profile of study participants

The appended questionnaire was made available online for completion by language professionals (mainly translators and terminologists) belonging to ASTTI (Swiss Association of Translators, Terminologists and Interpreters). Other language service providers with a previous link to our department have also taken part and given feedback about the survey.

Time and money permitting, we would like to extend this study to other important agents in multilingual documentation, namely technical writers, quality assurance (QA) managers, content managers, etc. These professions were unfortunately

- Degree of satisfaction of practicing language professionals about previous education (if any) and its coverage of technology-related issues for language work.
- Specialised vocational training – lifelong learning perspective. E.g. corporate or institutional provision of training, personal initiative to keep up to date about recent and foreseeable advances in the profession, etc.

3.3. Summary of findings

The main findings relevant to this paper's audience are as follows:

- 1) Despite all the technical hype of the last decade, most Swiss translators are still using MS-Word™ to store and manage their translation files, although there is a growing interest in translation memories, especially amongst younger translators, who are less reluctant to change to new work patterns. Those language professionals involved in terminology work use MS-Access™, online and self-compiled glossaries, and increasingly MultiTerm™ (terminology management component of the TRADOS Workbench™).
- 2) Commercial CAT packages (especially TRADOS Workbench™) are the most widespread form of translation technology in Switzerland, used by freelance translators, translation agencies, and company/institution language service departments alike. The software makers usually provide the training on site. A few of our respondents have also attended university courses about CAT tools at ISSCO, Geneva and DOZ/ZHW, Zurich. With the exception of two leading corporate language service providers who have performed evaluation exercises (Maier, Clarke and Stadler, 2001) of MT systems and adopted one in their workflow, there is no overall interest in MT in the Swiss translation arena. Regrettably, fears and misconceptions about MT still remain.
- 3) Firstly, the Internet is conceived as an optimum content delivery medium that has opened up new avenues for skilled language professionals, but is also considered as challenging by those in charge of simultaneous multilingual content updates. In this respect, Project Managers welcome the help of software bundles with an admin utility.

Secondly, most Swiss language professionals are keen to resort to Internet resources (dictionaries, glossaries, texts about their field of specialisation, etc.), yet they tend to disregard online MT freeware for its poor quality.

- 4) Concerning electronic language resources (LR), only those respondents (about 3%) that have taken university modules in computational linguistics or corpus linguistics knew what corpora are. Yet, their conception seemed to limit to reference corpora (e.g. British National Corpus – BNC). There was no or little indication that they could – without extra training – get involved in the use, let alone the creation, of various types of corpora for language work.
- 5) In relation to the last point, knowledge about text processing techniques, such as concordancing and alignment, was also scarce in general terms. Only those who declared to be knowledgeable enough about a particular CAT package were also familiar with the program's concordancing feature or aligner.
- 6) Except for a few respondents, it was perceived an overall feeling of discontent with the training received so far, either because it took place quite some time ago or for not being comprehensive or realistic enough. Most importantly, we have detected a knowledge vacuum in areas such as controlled language, GLIT (globalisation – localisation – internationalisation – translation) issues, language resources, etc. Of course, not all these emerging domains of translation practice will be of interest or practical use to everyone involved in the Swiss language trade, yet we would like to propose an evolving, responsive and customisable way of training language professionals on-the-job, whenever necessary.

4. Some training specifications and remarks

Industry-commissioned training normally differs substantially from the one performed in an academic setting. As trainers willing to bridge the gap between academia and the real world, we have to be adaptive enough and bear in mind that training about translation technology in organisations is as follows:

1) ***It is generally heavily dependent on ROI (return on investment) company/institution policies.***

Sometimes the choice of a particular software program or tool has to be made within a short period of time, due to (annual) budget programmes or other financial constraints. The corresponding training may have not been observed or carefully agreed upon in advance. The expected, usually rapid, increase of productivity levels may not occur if the novel users do not know how to make the most of the new tool.

More often than one may think, companies jump to invest in a commercial CAT package, on the basis that it has proved profitable to company X – without realizing that their own linguistic needs or work processes are different. The proper expert advice from an external consultant or body of experts (e.g. industry-oriented associations, such as LISA) should be sought. Ideally, consultancy and training / assessment exercises ought to go hand in hand from the very beginning.

If (preliminary) evaluation experiments do take place, they are usually aimed at measuring the tool users' productivity within a particular time span. But without the proper training, any program may appear too time-consuming to learn, far too difficult to use, and thus unnecessarily discarded.

2) ***It is linked to internal / customer satisfaction (obviously, a factor also related to productivity and profitability levels).***

Most study participants admitted to be reluctant to use MT in their translation workflow for two reasons: translators do not want to feel relegated to post-edit language garbage, and project managers do not wish to consider MT that would provide customers with poor quality translations.

First, training activities for translators should highlight the difference between a MT system 'end-user' and an 'active-user'. Whilst the first user can only access the output only (e.g. the client or a user of an online MT application in search of information in other languages), the second user can actively *play* with various system's architecture components aim at producing better results. The translator as

active MT user⁸ can contribute to a number of tasks within the (semi-)automated multilingual content production chain.

In the second instance, language service project managers have to be explained that MT is much more than the cheap or free MT applications presently available in Web search engines. 'We've never resorted to MT because it wouldn't ever satisfy any of our demanding clients. Whenever I've attempted to use MT on the net, the results have always been catastrophic, simply hilarious, and I couldn't ever imagine that MT is of any use. We'd rather consider learning more about [a leading CAT package](...)', a statement collected in our study once and again with little variation.

Without hiding the poor performance of many Web-based MT systems, training activities should highlight that when active customisation (pre- or post-editing) and interoperability with other technology components is possible, MT can contribute to the optimisation of a multilingual documentation production process for a given client.

'Success stories'⁹ made public overtly by multinationals (or ideally organisations belonging to the same sector) that have successfully implemented a technological component, which company X is reluctant to consider, may also help us introduce theoretical and practical principles at one time.

3) ***Traditionally, training about a new tool or application has been conceived as part of the tool introductory stage.***

However, this is changing now in two ways:

- a) the training is an ongoing process, seen as necessary on most occasions, especially if the tool is going to be used by other department members within the same company, or is set for

⁸ This idea had already been explored by Yuste (2001b). The emphasis was then to raise awareness among trainee translators and show them that knowledge about translation technology could be a passport to a job in the language industry, whereas the challenge now lies in updating the roles of translators already in practice.

⁹ For example, we could set Allen (1999),

external use as well, e.g. in translation services that outsource their bulk of work;

- b) the training of commercial software programs is delivered by the software maker or vendor (or, in absence, by an authorized partner) – normally as a service included in the program license package, provided that the buyer is prepared to keep purchasing updates and ad-ons or has a perpetual license. Moreover, (a team of) trainers / consultants can be hired on a regular basis to assess progress, introduce innovative practices, refine the content production cycle, etc.

5. Conclusion and future work

We have presented the background, framework and results of a recent case study, *‘Translation Technology in a Swiss ...’*, that has amply served us to argue that innovative models of corporate-based translation technology training are much required in Switzerland to optimise multilingual documentation production chains.

Ideally, this training ought to be less constrained by ROI impediments, and most importantly, efficient and extremely responsive to practical needs and goals, as well as project- and client-oriented.

In line with this, in future research projects we would like to explore collaborative training strategies that purposefully serve the needs of different language professionals across the same organisation (internally) or among two or more business partners (externally), all participating in the same multilingual content production lifecycle. For example, how to address their tasks’ intricacies when learning about an MT system recently adopted in the company, who contributes to and takes care of the system maintenance (constant expansion of lexicons, re-authoring of controlled grammar, etc), who will perform the end-user evaluation, etc. All ideas for future work.

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N.B. All Internet references referred to within this article were last visited in October 2002.

8. Appendix: 'TRANSLATION TECHNOLOGY IN A SWISS CONTEXT'

A RESEARCH PROJECT SURVEY¹⁰

[optional] Name, Organisation, E-mail

1. About Yourself and Your (Language) Expertise

1.1. Are you (you may tick more than one option, if necessary):

A translator

A language tool developer

A translation trainer

A technical writer

A language technology consultant

A (software/website) localizer

A terminologist

Other - please specify

1.2. What specialisation field(s) do you work in?

[N.B. Field option list provided here in the online questionnaire]

1.3. About your work (and the support you get for it)

1.3. A) Do you work?

- as a free-lancer?

-

¹⁰ The questionnaire presented here has been slightly reduced, and its format modified, to adhere to paper length guidelines. For instance, field spaces for answer expansion are missing.

2.2. COMPUTER-ASSISTED TRANSLATION (CAT) [See section 3.1. E for translation memories (TM) as language resources]:

[2.2.A] Do you use a CAT package for your daily work?

- Yes. Which one?
- No. Would you consider using CAT for your language work?
 - Yes.
 - No. Please say why not.

[2.2.B] When you (or your company) decided to adopt a CAT package, did you carry out an evaluation exercise of existing tools in the market? [N.B. Leave blank if you do not use any CAT tools]

- Yes. Please explain.
- No. Please say why not.

[2.2.C.] As a user of CAT tools, what problems do you usually encounter and what features would you ideally see in a translator's workbench? Please provide details. [N.B. Leave blank if you do not use any CAT tools]

2.3. CONTROLLED LANGUAGE TECHNOLOGIES:

[2.3.A] What are controlled languages? Please provide your own definition.

[2.3.B] Have you (or has your company) ever used a controlled language in combination with another technological application, e.g. a MT system?

- Yes. Please provide details.
- No.

2.4. TERMINOLOGY MANAGEMENT (See Section 3.1. D. for Termbases as language resources):

If you (or other members of your company) are involved in terminology work, do you use a terminology management system?

- Yes. Is it a commercial or a self-developed application? Please explain.
- No.

2.5. OTHER TECHNOLOGICAL APPLICATIONS USED FOR YOUR LANGUAGE WORK?

Please state (type of) program/application and describe usefulness.

3. Language Resources (LR) Understanding and Use

3.1. What kind of language resources (LR) do you normally use?

[3.1.A] DICTIONARIES:

- monolingual
- bilingual

[3.1.B] GLOSSARIES:

- monolingual
- bilingual
- multilingual
- If you build your own glossaries, please comment about technique, fields, sources used, maintenance issues, etc.
- How would you rate your knowledge of glossary making?
 - excellent
 - very good
 - adequate
 - poor
 - none

[3.1.C] CORPORA:

3.1.C.1. Corpus Linguistics:

3.1.C.1.a. Have you ever learnt or been trained in this discipline in connection with language work of some sort (e.g. translation, terminology, lexicography, language variation, register, genre and style, discourse analysis, etc.)?

- Yes. So, please explain training setting, method and bibliography employed, etc.
- No, I had never heard about *corpus linguistics*.

3.1.C.1.b. Do the concepts of *collocation*, *concordance*, *alignment*... mean anything to you?

- Yes. So, please expand your answer.
- No, I am not familiar with those concepts.

3.1.C.2. Monolingual corpora:

3.1.C.2.a. Are you familiar with *reference corpora*, such as the *British National Corpus (BNC)*?

- Yes. If so, which corpus and for what language - please provide details.
- No.

3.1.C.2.b. Have you ever built your own corpus/corpora?

- Yes. If so, please provide details about motivation, source and digitalisation of documents, copyright issues, the Internet, text-processing tools used, etc.
- No.

3.1.C.3. Multilingual corpora:

- non parallel, but same domain

- parallel
- any experience creating your own multilingual corpora? - Please give details (any encountered difficulties, annotation or mark-up language, alignment, etc.)

[3.1.D] TERMINOLOGICAL DATABASES [TERMBASES]:

- monolingual databases
- bilingual databases
- multilingual databases

3.1.D.4. Please state in what way you normally handle terminological databases:

- I use/exploit them
- I maintain/expand them
- I validate them as a domain expert

3.1.D.5. Please state how the terminological database, which you use most, has been created:

- it is an online external resource and, therefore, I do not have much information about how it was created

- it is a database for which commercial terminology management software was used

- it is a database for which a research terminology management program was used

[3.1.E] TRANSLATION MEMORIES (PARALLEL TEXTS):

Please describe your knowledge and experience with translation memories (e.g. what software you use, how this serves your work needs, what features you would like to be available in a translation memory package, etc.)

3.2. Scope of USE - What do you use these resources for?

- to find or provide information on specific fields for translation and domain understanding
- to elaborate my (/our) own glossaries, dictionaries, databases
- to integrate them in machine translation (MT) systems
- to integrate them in translation memory (TM) systems
- to provide a terminology management (TermMan) system with data
- to incorporate in a Language Engineering (LE) system

4. In-house (i.e. self-developed or produced) Language Resources (LR)

4.1. What type of LR do you (or does your team/department) produce on a regular basis or have ever produced for your work?

- glossaries
- terminological databases
- dictionaries
- corpora: - monolingual
- multilingual
- other - please specify

4.2. What tools do you use to store your LR data?

- MS-ACCESSTM
- MS-WORDTM
- MS-EXCELTM
- TRADOS MultitermTM and WorkbenchTM
- Other - please specify

4.3. Would you be willing to make your LR available to others working in the same area of specialisation / interest?

- Yes: - for on-site consultation only
- for research purposes only
- for sale
- No

4.4. Would you be willing to provide documents describing your tool exploitation, resource creation, features, etc.?

- Yes
- No

5. The Internet as a source of Language Resources (LR) and Tools

5.1. When you need to find LR and tools on the Internet, what type of sites do you resort to?

- linguistic sites / portals with general information
- linguistic (or translation) sites with links to glossaries and lexicons
- linguistic (or translation) sites dedicated to specific fields (information technology, economics, sciences...)
- non linguistic sites dedicated to specific fields (information technology, economics, etc.)
- non linguistic sites with links to glossaries and lexicons
- non linguistic but reference sites (from companies / associations / organisations)
- translators' Web pages
- online terminological databases
- search engines with translation (MT) capabilities
- other - please specify

5.2. Why do you consult these sites (Please, select max. 3 propositions)?

- They cover the fields you work in
- The data are provided by official (standardised) terminology centres or international / national organisations
- The data are provided by technical / scientific organisations or expert bodies
- They are accessible free of charge
- Resources or tools can be downloaded or used (e.g. MT applications)
- The interface is user-friendly

5.3. How do you find LR of your choice/of practical use on the Internet?

- by doing your own search with search engines or directories (Altavista, Yahoo...)
- by using portals dedicated to language(s)

5.4. How valuable are LR on the Internet for you and your work?

- very valuable
- valuable
- poorly valuable

6. About your Professional Training and Development

6.1. Do you hold a university degree or specialisation course in translation or a related discipline?

- Yes. If Yes, which one(s) (please provide degree or course title, awarding institution, and graduation date)?
- No

6.2. Do you reckon that your professional training provided you with sufficient knowledge about translation technology and/or language resources?

- Yes. Please be more specific.
- No. Please explain why not.

6.3. If you could enrol a continuous education course or training session(s), what translation technology and/or language resources related topics would you like to see covered?

6.4. Are you a translation trainer or have you ever delivered translation training seminars/courses?

- Yes. Please specify contents, date, training population and environment, etc.
 - As a translation trainer, how do you handle the issues of translation tools and/or language resources in your training sessions? Your comments are much appreciated!
- No. I have never been involved in translation training.

7. Keeping you up to date...

7.1. Are you member of any association related to (Machine) Translation, Terminology, Language Resources, Localization, etc.?

- Yes. If Yes, which one(s)?
- No

7.2. Do you wish to be kept informed of any further developments concerning this project?

- Yes.
- No

7.3. Would you like to be contacted for other initiatives in relation to electronic tools/translation technology in Switzerland?

- Yes
- No

Thank you very much for your co-operation! --- Elia Yuste (yuste@ifi.unizh.ch)