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Who is afraid of MT?

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Abstract: Machine translation (MT) is experiencing a renaissance. On one hand, machine translation is becoming more common and used in ever larger scale, on the other hand many translators have an almost hostile attitude towards machine translation programs and those translators who use MT as a tool. Either it is assumed that the MT can never be as good as a human translation or machine translation is viewed as the ultimate enemy of the translator and as a job killer. The article discusses with various examples the limits and possibilities of machine translation. It demonstrates that machine translation can be better than human translations – even if they were made by experienced professional translators. The paper also reports the results of a test that showed that translation customers must expect that even well-known and expensive translation service providers deliver a quality that is on par with poor MT. Overall, it is argued that machine translation programs are no more and no less than an additional tool with which the translation industry can satisfy certain requirements. This abstract was also – as the entire article – automatically translated into English.

Keywords: Machine translation, Automatic translation, MT vs. HAT, Google Translate, Translation quality

In 2011, the DGT, the Directorate-General for Translation of the European Commission, organized the 5th EMT Conference in Brussels. The motto was „Mastering the future of translation“. Starting point was the present situation on the translation market. As we all know, the demand for translation services is rising, the translation volume is rising, and many players want a share of the cake in this growing market. So competition is growing. And prices are actually lower than 40 years ago. In his opening speech, the Director of the Directorate-General for Translation, Rytis Martikonis, presented three approaches to address this chal-

Note: A German version of this paper was presented at the FIT XXWorld Congress in Berlin on August 5, 2014 (Schmitt 2014), this English version was presented at the 4th Translation and Localization Conference on March 27, 2015 in Warsaw.

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lenge. Number one was machine translation (MT). Note: MT not as a problem, but as a solution to a problem.¹

That would be unremarkable were it not for the continued strong aversion among translators against any closer look at MT, let alone to actually use it as a tool to meet the challenges of the market. This aversion is no rumor, no speculation, it can be proven. Let me show you some facts, taken from the CIUTI Survey (Schmitt / Gerstmeyer / Müller 2015) among translators with a degree from one of the 42 CIUTI member institutes. 2,813 respondents filled in our online questionnaire. As you can see in Fig. 1, we got feedback from 19 countries. Almost zero from Canada and China, but a lot from Belgium, Germany, Italy and Austria. So while our data do reflect the international situation, they are much stronger for central Europe.

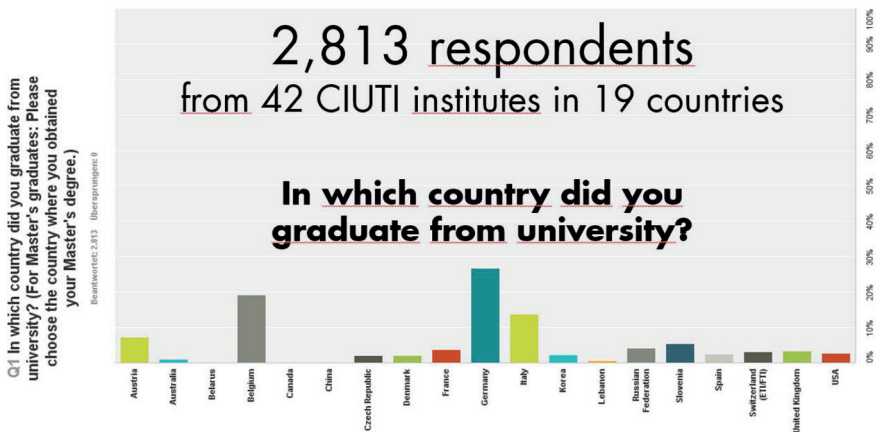


Figure 1: CIUTI Survey – representation of countries.

The online questionnaire consisted of 98 questions, and question 52 (which was open only to translators, not interpreters) was „Do you use any computer-aided translation (CAT) tools?“. 75% answered YES, 25% NO (Fig. 2). That three-quarters of all translators use CAT is less surprising than the reverse perspective that one quarter does NOT use CAT tools. And this in the year 2014, 30 years after the introduction of personal computers to our workplaces!

¹ Since the 1970s, the European Commission provided a rule-based MT service (SYSTRAN) to address this challenge; in 2010 the Commission launched a new Statistical Machine Translation (SMT) system, MT@EC, which covers 552 language pairs (MT@EC (2015)).

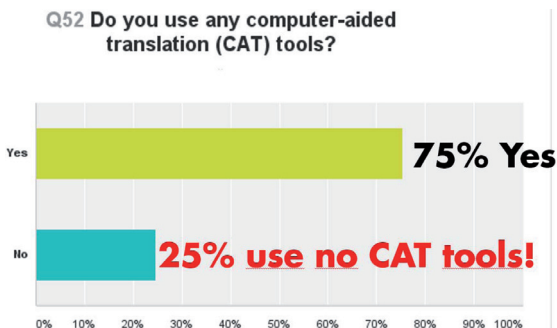


Figure 2: CIUTI Survey – Usage of CAT tools.

So, let us note that three-quarters of all translators are quite computer knowledgeable insofar as they use their computers not merely as a sort of modern typewriter. One would expect that these translators would also run machine translation software on their computers.

This brings us to question no. 56: „Do you use machine (automatic) translation (e.g. Google Translate, Systran)?“ – 90% of respondents said NO (Fig. 3).

Fig. 4 shows the answers to question 57, „Which machine (automatic) translation software do you use?“. The old rule-based translation programs – a typical example of this category is Systran – play only a minor role among translators. However, Systran & Co. may be hidden in the categories „in-house software“ and „Other“. By far the most popular MT program is Google Translate. As you know, it is a hybrid system which is primarily corpus- and statistics-based. And as such, it gets better as the text corpus grows, which means it gets better every day.

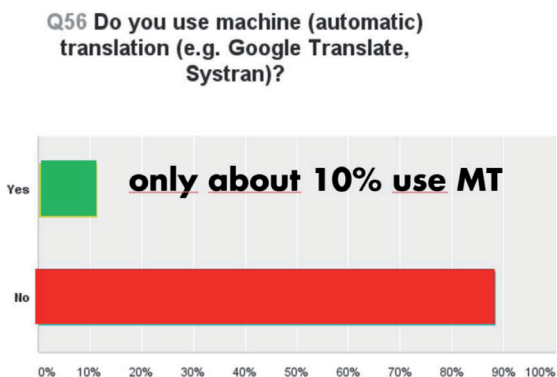


Figure 3: CIUTI Survey – Use of Machine Translation.

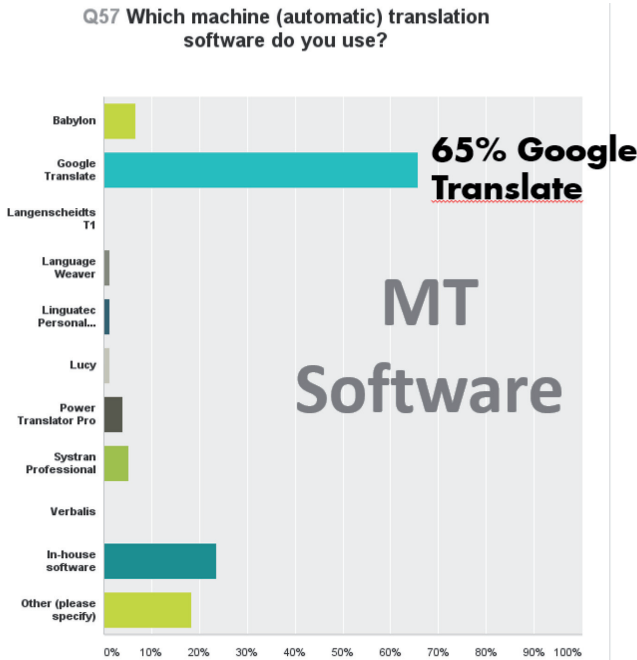


Figure 4: CIUTI Survey – MT software preference.

Also interesting are the answers to the question to what purpose MT-users are deploying automatic translation. Nearly 60% said they use it as starting basis for their own translation, so to speak, as raw material which is then post-edited. Slightly more than 40% use MT in conjunction with a Translation Memory System. Around 20% are using MT in cases where a fast translation is needed, the „quick-and-dirty“ type. About 15% use MT to automatically create high-quality translations on the basis of source texts in a controlled language.

So much for the view of translation practitioners and their relationship to MT. Now, let us shift the perspective.

The Masters' program in translation studies at the IALT in Leipzig includes a compulsory module entitled „Quality and Project Management“. This module includes a 15-hour lecture series on „Language Engineering“ which covers an overview on all existing translation tools. One aspect are the possibilities and limitations of MT, with realistic examples and practical demonstrations using various MT products. At the end of the module, students have to sit an exam. The exam is a written test which consists mainly of multiple-choice questions. There are usually about 50 questions, and one of them is shown in Fig. 5.

Which statement is true?

Machine translations (MT) ...

- a) *will result in the planned shutdown of the EU's Translation Services in the year 2018*
- b) *are, under certain conditions, better than human translations*
- c) *are never as good as human translations*
- d) *are irrelevant for quality-minded translators*

Figure 5: One out of 50 exam questions on translation tools.

Students can choose among four answer options. To add some stress-relief comedy I usually offer one option which is utter nonsense. As a rule, I also offer two answer options which sound quite plausible to somebody who has not attended my lecture. But only one out of the four answer options is correct.

It is funny to note that there is always at least one person in the group who checks the silly option. In the example shown here, the silly option is, of course, answer a).

Not so funny is the observation that, despite my balanced treatment of the MT topic, only few students know the correct answer (option b). By far the most popular answer is c): „[MT] are never as good as a human translations“. This reflects the general attitude of translators – but this answer is wrong.

However, you may have noticed that there are some problematic words in this question. First, one should always be careful with the word „never“. The second tricky word is „good“: What do we mean when we say or believe that „a machine translation is never as good as a human translation“? Obviously the whole subject of machine translation is closely related to the old discussion about how to determine the quality of translations. Of course we won't go into detail here, but once we start to think about it, it becomes apparent that it depends on the purpose of a translation job, whether a translation is „good“ (or „good enough“). According to the rule that „quality is what the customer wants“, a translation is good if it meets the customer's expectations. If the client wants a quick-and-dirty, just-for-information, gist translation, but very quickly and with a strict deadline, then any translation beyond that deadline would not meet the client's expectations and would not be good. If the translation is in a better quality than needed, e.g. a delicately worded and formatted document instead of a rough gist translation, then this would not be good either: Putting too much quality in a product where this quality is not required is not good. In technology, this would be called „over-engineering“. Over-engineering involves unnecessary effort, and costs time and money without creating revenue.

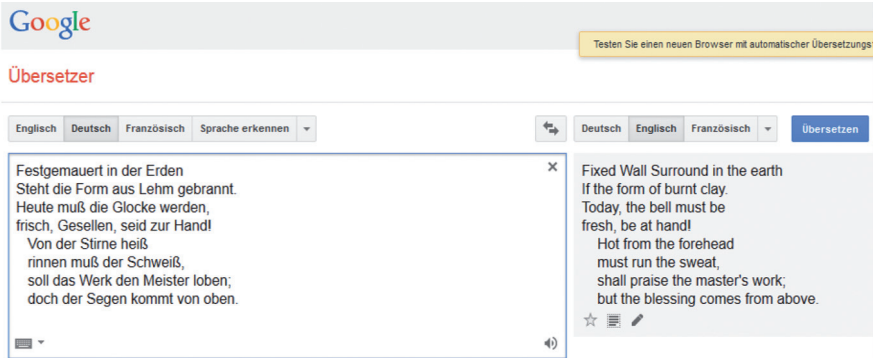


Figure 7: MT sample 2: Schiller's Glocke de-en by GT.

But it is also clear that there are types of text which are *a priori* not suitable to be translated automatically. Fig. 7 shows the first verse of Schiller's *Das Lied von der Glocke* and an English rendering by Google Translate. It is undisputed that it would be nonsensical to automatically translate expressive text types such as poetry. And trying to prove the uselessness of a machine translation system by feeding it lyrics is just meaningless.

Nevertheless, if we feed the same verse into the rule-based Personal Translator, a MT product based on over 50 years of development and sold by Linguatrec, the result is better than one would expect (Fig. 8). I can imagine that it would get some polite applause if we presented it at a poetry slam.

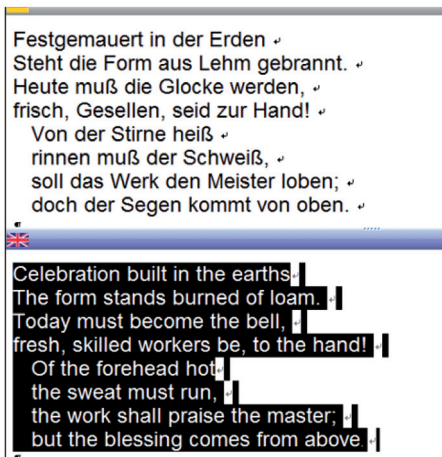


Figure 8: MT sample 3: Schiller's Glocke de-en by PT14.

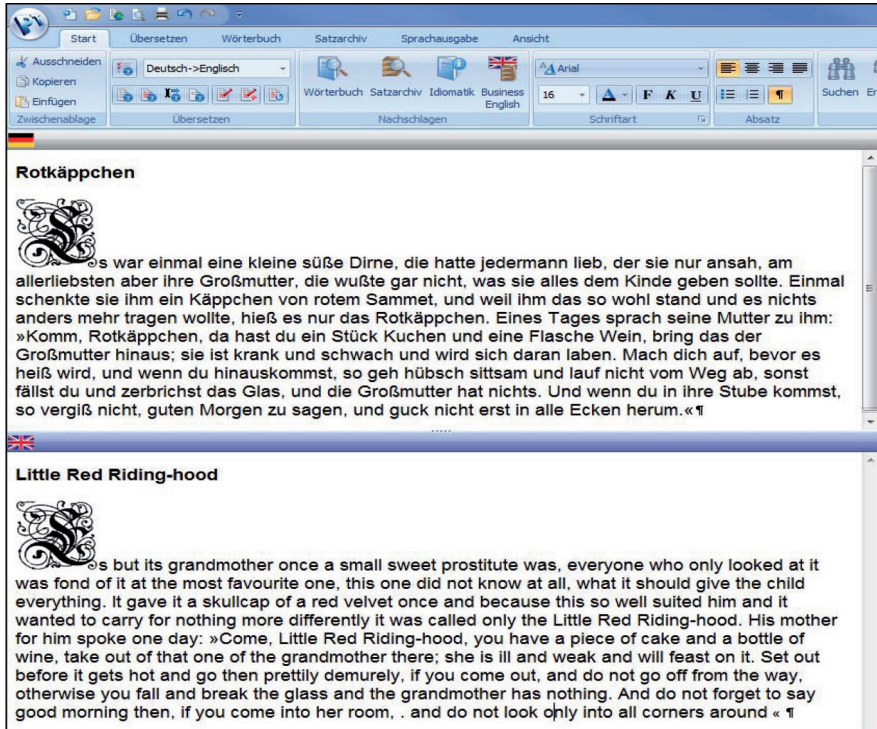


Figure 9: MT sample 4: Rotkäppchen de-en by PT14.

It also makes no sense to deploy an automatic translation program on novels or fairy tales – see Fig. 8. Note that the German „kleine süße Dirne“ – an old-fashioned way of saying a „small sweet girl“ – was translated into a „small sweet prostitute“. This confirms our expectations. But this example also shows that the Personal Translator nevertheless produces a text that gives us an idea of the content of the text. Please also note that the girl’s name „Rotkäppchen“ is correctly translated to „Little Red Riding Hood“. Nevertheless, Google yields a whopping 30,000 search results for the phrase „wenig rote Reitmotorhaube“. This is obviously a silly word-for-word translation of the English „Little Red Riding Hood“, which in turn is indeed the English equivalent title of the German fairy tale about Rotkäppchen.



Figure 10: Ignorant GT bashing.

It is symptomatic of the opinion of translators on the subject of machine translation that this stale Red Riding Hood translation joke was posted on Facebook in a translation group with the comment: „Brothers Grimm in Google Translatish“ (Fig. 10). As to be expected, the post received an avalanche of „likes“ – but the message is a lie: Google Translate has no problem with the correct translation of Little Red Riding Hood. It delivers the correct *Rotkäppchen* (Fig. 11).

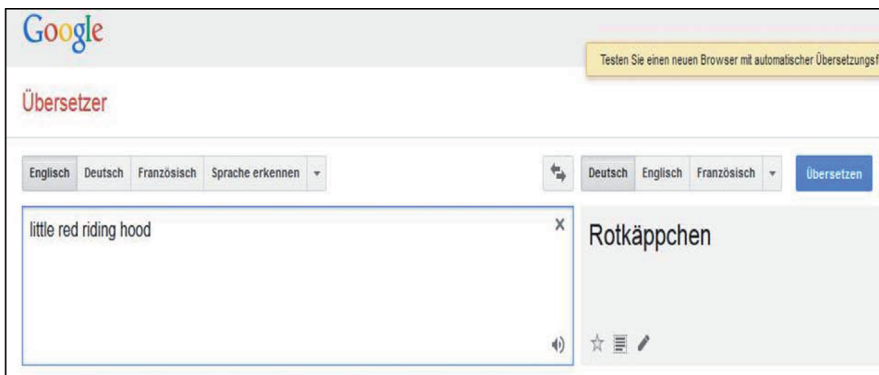


Figure 11: Little Red Riding Hood en-de by GT.

One has also tried to test the performance of MT software by deploying it on Bible quotations. Again, this is not helpful. We all know that the Bible (or rather in plural, the Bibles) leaves plenty of room for interpretation. And even aged and experienced scholars do not always agree on one interpretation. The ability of analyzing the complex socio-cultural setting and multilingual background and history of a bundle of texts written by many authors over a period of hundreds of years is not built into machine translation software. Not only because it is impossible (at least in the foreseeable future), but because the translation of sacred texts is not the purpose of MT software.

Most MT-comparison tests (see, e.g., *Netzwelt* 2010) are methodologically naive, superficial and therefore not useful². Even reputable journals such as *c't* cannot resist to include „nasty difficulties“ (Heise 2010) in their MT tests, such as time-honored poetic words such as *Barbier* or *Ebenbild*, endangered words such as *Schutzmann* und *Spülstein* (*ibid.*)³.



Figure 12: Typical stand-alone MT products.

However, such unrealistic vocabulary tests miss the purpose of such MT programs completely. Apart from this, any gaps in the program's dictionary can be easily

² For a better approach to MT quality assessment see Bauer (2002).

³ *C't* Test criticizes, e.g., that MT programs translated the German „Christkind“ to „Santa Claus“ – which, in fact, depending on context, might be a perfectly localized rendering.

filled by the user. Reputable MT products do not claim that they are suitable for poetry, etc., not for the expressive prose text type, such as novels, not even for appellative text types, such as in the field of advertising. MT is intended for informative texts. But even in that area, MT cannot handle everything. However, one can judge the performance of MT systems by checking whether they deliver what they promise in their product description.

- Translates quickly and easily in 8 languages of the world
- This new version of Power Translator eliminates language barriers
- It promotes understandable communication
- Get immediate translations in the major languages of the world, anything is possible
- With Power Translator 16 Professional language barriers are history
- Many additional dictionaries, including the areas of finance, military, IT or automobiles
- Even technical texts are no longer a problem
- Attention has been paid to the recognition and translation of contexts to produce even smarter translations

Figure 13: Personal Translator PTT14 product claims.

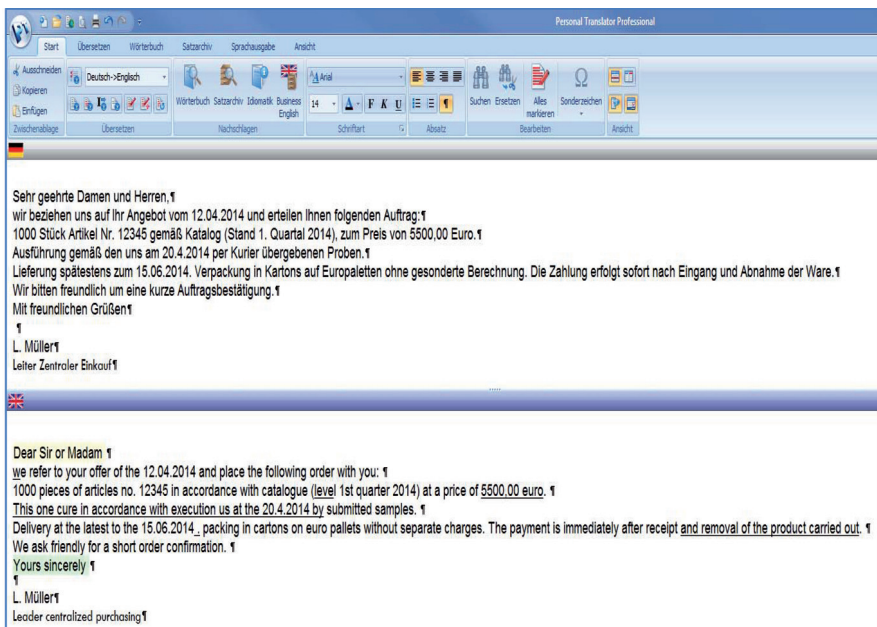


Figure 14: MT sample 5: business letter de-en by PT14.

MT products usually claim that they can translate commercial correspondence. Therefore one can expect that they can produce a useful translation of a business letter. Fig. 14 shows a typical business letter. The German original text is shown in the upper window, the automatic English translation by Personal Translator in the lower window.

Surprisingly, the translation is only partly useful.

It will not surprise us to see that polysemy is a major problem: The German noun *Stand* has many meanings, and instead of the correct meaning „as of“ (in this case, the first quarter of the year) PT used the translation „level“ which would be correct in a different context but it is nonsense here. But from a user's perspective it is disappointing to see that the program cannot cope with some of the standard phrases of commercial correspondence. See the underlined passages on the slide. Completely unbelievable is the observation that the program, in its version 14, despite decades of product development, fails to handle some of the regular aspects of this type of text. One rule is that the first letter after the salutation line has to be capitalized – always. Another rule is that the German decimal comma in a price statement must be a decimal point in the English translation. And the third rule violation is that the Euro currency is a proper name and as such must be written with a capital letter E.

Fig. 15 shows the same letter, now translated by Google Translate. Google, too, does not solve the problem with the capitalization of the first character in the first line. But this is not surprising, as GT does not work with spelling rules. Apart from this detail, the GT translation is quite useful. I guess that most MT users and readers would consider this translation as good enough. Note, for example, the idiomatically correct translation of „(Stand 1. Quartal)“ with „(as of Q1 2014)“ and the correct spelling of the prize quotation, including replacement of „Euro“ by the currency symbol „€“.

A typical field of application for automatic translation software are user instructions. This encompasses a wide scope of text types and text type variants, with very different characteristics. Consider, for example, instructions for a salad spinner at one end of the spectrum, which fit on one page, and the manuals of a power station at the other end, which cover thousands of pages.

There is a fundamental distinction between external technical communication and internal technical communication. External technical communication involves documents with a more or less technical content written by subject-matter experts for non-experts. This category includes instructions for salad spinners and car owner's manuals. Internal technical communication involves documents with a usually very technical content written by experts for experts. This includes power plant manuals as well as the full range of automobile service literature. As a result there are fundamentally different types of text features. The

first category is usually linguistically carefully formulated (at least with quality products), while the second category is characterized by many technical terms and a simple sentence structure.

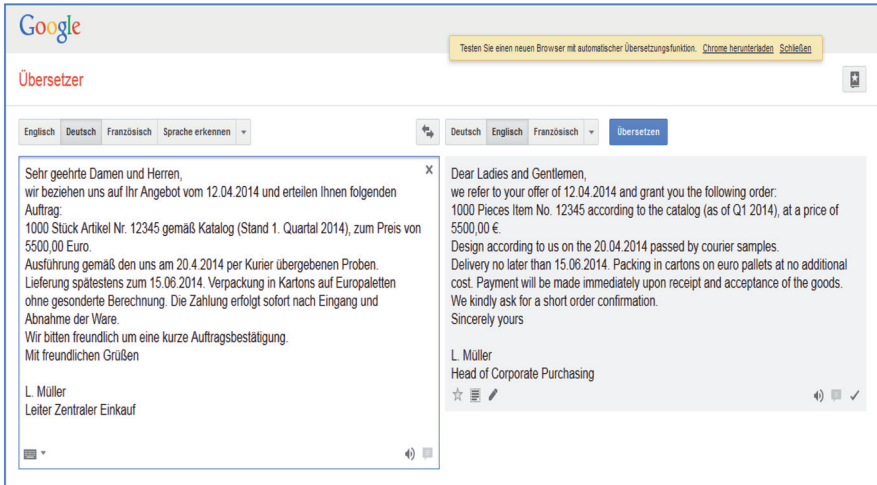


Figure 15: MT sample 6: business letter de-en by GT.

Fig. 16 shows in the upper window a phrase from an English system description in an automotive workshop manual. The window below shows the fully automatic German translation produced by the rule-based MT product Langenscheidt T1. Never mind that T1 is no longer on the market. This example confirms those who believe that MT software produces only nonsense.

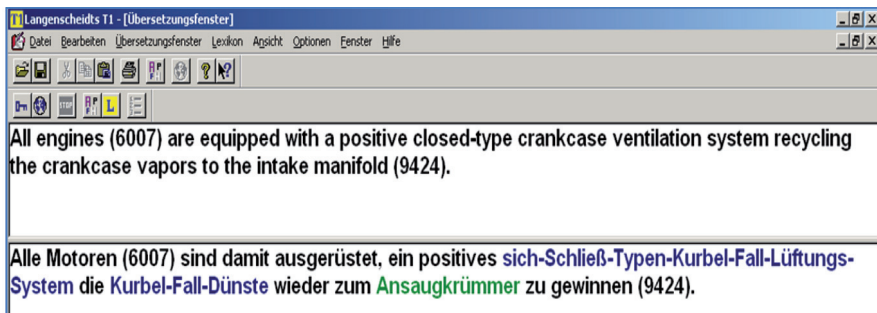


Figure 16: MT sample 7: automotive workshop manual en-de by T1.

Fig. 17 shows a small section of an exam in technical translation at the IALT in Leipzig. The text is an excerpt from a Chrysler Service Manual. Let us look at step 5. A qualified translator with an academic degree in translation and over ten years of professional translation experience in automotive engineering needed four minutes to translate this sentence. This is his translation:

Befestigungsmutter AGR-Ventil an Krümmerrohr rechts abschrauben. AGR-Ventil an Krümmerrohr (9D477) ausbauen.

That sounds good, but it is wrong.

One of our IALT examination candidates labored about ten minutes over this sentence and finally wrote:

Abgasrückführventil an Mutter der Abgaskrümmerleitung vom rechten Abgaskrümmer entfernen und Abgasrückführventil vom Abgasrohr (9D477) entfernen.

This also sounds good, but it is also wrong.

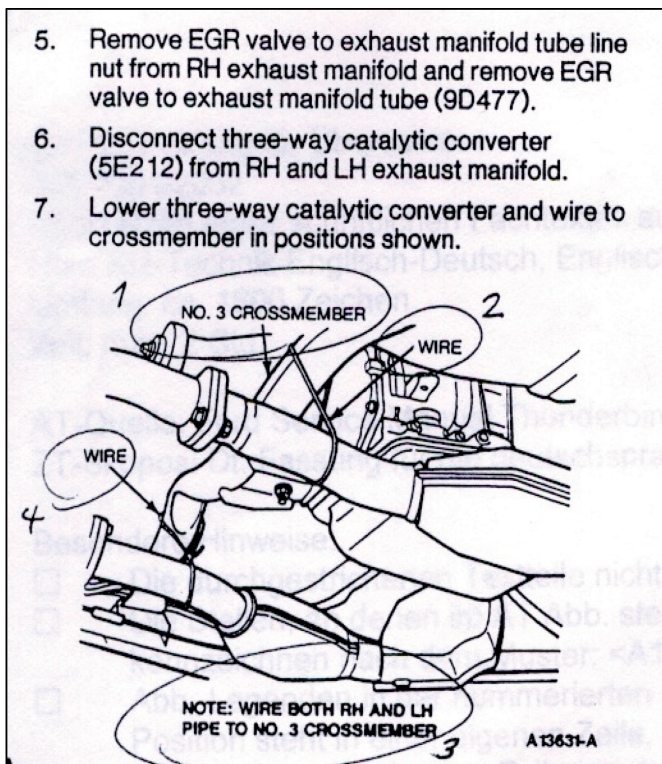


Figure 17: MT sample 8: car service manual en.

In the same examination, another candidate wrote:

Am rechten Abgaskrümmer Mutter der vom AGR-Ventil zum Abgaskrümmer führenden AGR-Leitung abschrauben und die gesamte Leitung (9D477) entfernen.

This is perfect. You can tell the translator has *understood* the meaning of the source text. She did not desperately cling to the words of the original. Instead she has recognized that this instruction has – as usual in this type of text – in fact a very simple sentence structure. That it looks a bit complicated is just caused by the use of multi-word terms. Which again is a typical phenomenon in this type of texts.

The pattern is: *Remove A from B and then remove C.*

Where:

A = EGR valve to exhaust manifold tube line nut (that means A is a nut, *Mutter* in German)

B = RH exhaust manifold (that means B is the RH exhaust manifold, *rechter Abgaskrümmer* in German)

C = EGR valve to exhaust manifold tube (that means C is the tube that connects A and B, in German the *Verbindungsleitung*)

One might be tempted to assume that a stupid MT program that „understands“ *nothing*, has no chance whatsoever to translate this correctly. Let us try it anyway. Google Translate translates this examples as shown here:

AGR-Ventil zu entfernen Verteilerrohrleitung Mutter vom RH Abgaskrümmer erschöpfen und entfernen AGR-Ventil zu Verteilerrohr (9D477) erschöpfen.

Those readers who speak German will immediately see that this is utter nonsense.

Of course this did not work. Google Translate draws its translations from the huge body of texts which is accessible to Google. But it would be very unrealistic to expect that our example, a tiny bit of a highly specialized text taken from an in-house service manual, would be anywhere publicly accessible on the Internet. Therefore, Google Translate has no reference material to use as building blocks for its translation. And *no chance to get this right*. Therefore, it is useless to try Google Translate for this type of document.

The situation is different when we feed this text into a rule-based MT program. These programs need no pre-translated text corpus, they rely on their linguistic sets of rules and algorithms and their dictionaries. In our tests, Personal Translator produced the best translations, so let's see how PT translates our example. This slide shows what we get with the default configuration, i.e. when you buy the product, install it and use it as it is:

Entfernen Sie EGR Ventil, um mannigfaltige Rohrleinenmutter von RH Auspuffansaugrohr zu erschöpfen, und entfernen Sie EGR Ventil, um mannigfaltiges Rohr (9 D477) zu erschöpfen.

This is pretty bizarre, but it could be worse. Users can tell the program to use the impersonal style required for this type of text. This requires only a check mark in the right box. After that, we get:

EGR Ventil entfernen, um mannigfaltige Rohrleinenmutter von RH Auspuffansaugrohr zu erschöpfen, und EGR Ventil entfernen, um mannigfaltiges Rohr (9 D477) zu erschöpfen.

This sounds better, because it is the style one expects in this type of text. But it is still nonsense. However, the cause of this nonsense is merely a terminology problem – and that can be easily rectified.

As I have shown above, the statement involves three objects A, B and C, and each one of the objects is designated by a multi-word term. That means that the program (but the same applies to a human translator) needs the target-language designations of these three objects. The PT program has some built-in dictionaries, but we can also add user-defined dictionaries. It is a matter of a few seconds to add the three terms and their German or English equivalents to the user dictionary. Then we get the linguistically and technically correct translation shown in Fig. 18.

This example shows that MT can produce a better translation than human translators.

The actual translation process takes about 1 second and is carried out fully automatically without any pre-, inter- and post-editing. The only prerequisite is that the program can access the text-specific terminology in both languages (and that the terminology is correct). Of course, the effort of adding new dictionary entries is worthwhile only if you translate this kind of text more often than just once.

A weak point is that MT software typically uses its own dictionaries and not the terminology component which is an integral part of translation memory systems. It is obvious that it is uneconomical to maintain separate dictionaries and termbanks for MT and TMS. So it makes sense not to operate MT and TMS tools as separate stand-alone solutions, but as an integrated package. This has been suggested and propagated by Uwe Muegge for many years (see Muegge 2001).

If you want to get useful translations in a fully automatic process, i.e. without or with a minimum of human interaction, then the only approach is to ensure that the source text material is written in such a way that it enables machine translation. Since different MT programs have their specific weaknesses and strengths (same as human translators, by the way), it is best to optimize a document with respect to a particular MT program.

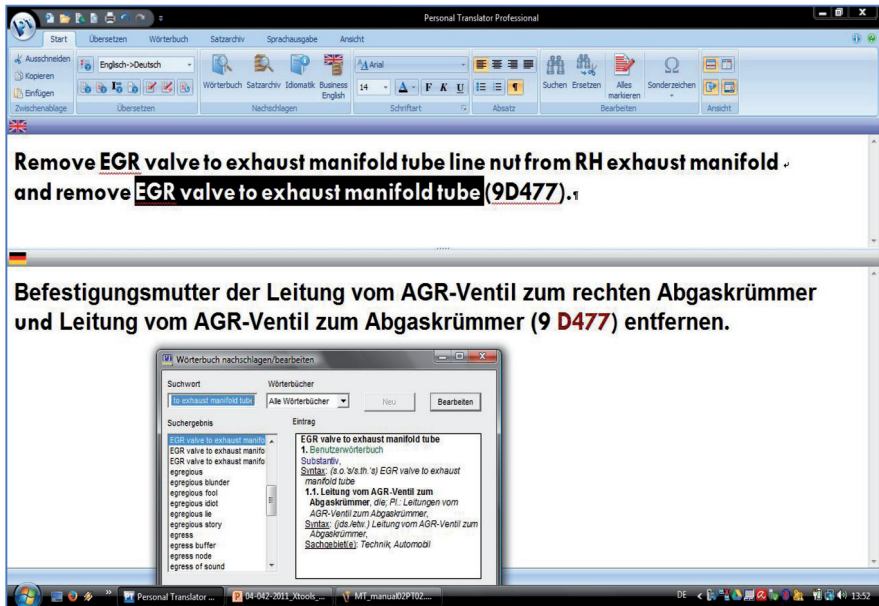


Figure 18: MT sample 9: car service manual en-de by PT14 with user dictionary.

Generally one can say that in a defined communication environment, with a certain scope of text types and field-specific terminology, it is much more efficient to control the language of the source documents than trying to repair machine-translated texts in a post-editing process. Let me illustrate this with a real-life example, again taken from a car service manual:

The camshafts (6250) are individually chain driven with an automatic hydraulic timing chain tensioner (6L266) on each chain.

As to be expected, fully automatic translation with PT without dictionary matching and other measures results in nonsense:

Die Nockenwellen (6250) sind individuell mit einem automatischen hydraulischen Zeitberechnungskettenstraffer (6 L266) auf jeder Kette gefahren Kette.

A MT program – as well as any human translator – needs the text-specific terminology in both languages. Naturally, therefore, the first and indispensable step is to enter the necessary terms into the MT dictionary. Otherwise we cannot expect to get a useful result. Apart from this, this source text is not suited for machine translation. It is foreseeable that fully automatic MT will not produce a useful result. So we have to perform some pre-editing to optimize the text for MT.

First action: Easier sentence structure. Instead of a complex long sentence structure we make two short sentences and get:

Each camshaft (6250) is driven by a separate timing chain. Each chain has an automatic hydraulic timing chain tensioner (6L266).

Second measure: Standardized terminology. The rule is: always use the same term for a given concept. Therefore the timing chain should always be called timing chain, and we get:

Each camshaft (6250) is driven by a separate timing chain. Each timing chain has an automatic hydraulic timing chain tensioner (6L266).

Third measure: Avoid polysemy. The passive construction with the ambiguous verb *driven* is not suitable for a fully automatic translation. We replace this simply but correctly by the auxiliary verb *has* and get:

Each camshaft (6250) has a separate timing chain. Each timing chain has an automatic hydraulic timing chain tensioner (6L266).

This does not sound linguistically sophisticated, but it is easy to understand and can be translated automatically – see the translation of Personal Translator at the bottom of Fig. 19.

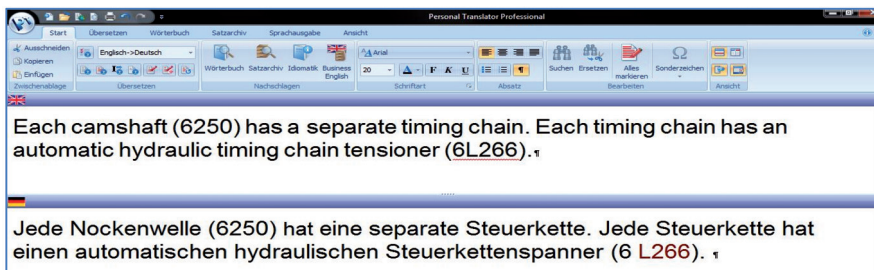


Figure 19: MT sample 10: car service manual en-de by PT14 with user dictionary and pre-editing.

This real-life example shows that currently available PC-based MT programs are quite capable of producing correct translations – fully automatic. If the source has been written with a certain extent of controlled language, FAHQMT (fully automatic high quality machine translation) is no longer utopia, it is a fact.

Today, the machine translation option is just another tool in our repertoire of translation tools (cf. Kluvanec 2013:7): Optical character recognition (OCR), project management (PM) tools, termbank (TB), translation memory (TM) system, and machine translation (MT). From case to case, from text to text, we decide

which tool or – in most cases – combination of tools should be deployed to effectively meet the client’s expectations⁴ (see Muegge 2006, 2007, 2008a and 2008b).

Translation Tool Box

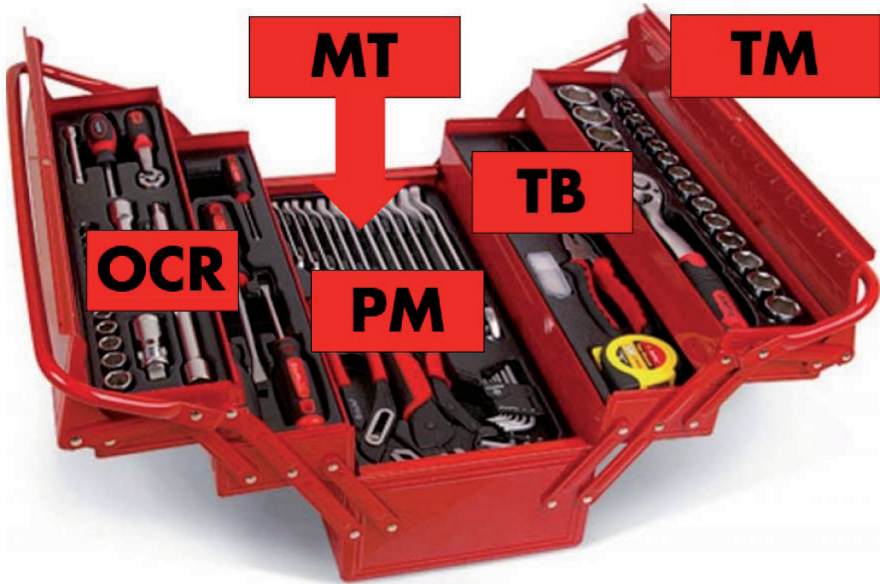


Figure 20: MT just another tool in the translation tool box.

So, let’s get back to our title question: “Who’s Afraid of MT?”

Speculative Answer: *Maybe those 90% of all translators who are not using MT* (according to our CIUTI Survey).

Some translators claim – e.g. recently in a translators’ group on Facebook – that it is unethical for a translator to use MT in their translation projects. However, one can safely assume (and the posts on Facebook as well as surveys among translators nourish this impression) that the vast majority of translators has no or very little serious knowledge about MT. Most of them do not possess a professional MT system on their computer. They have no practical knowledge with MT

⁴ However, „what clients actually value“ is not necessarily clear – see the critical yet balanced position of Hendzel (2012).

beyond the occasional use of Google Translate. Nevertheless practically all translators have a strong and negative opinion about MT: Either they believe that MT is absolutely useless or they are afraid that MT is eventually taking their jobs.

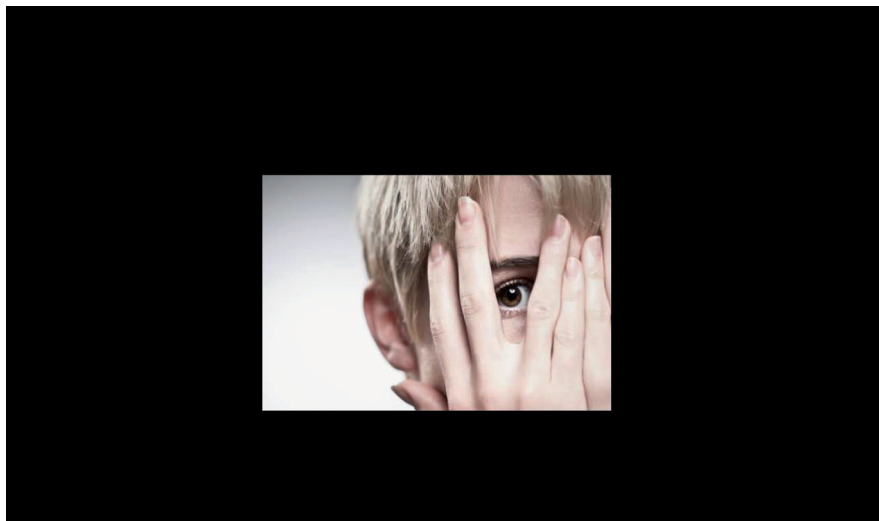


Figure 21: Afraid of MT? Typical translator attitude.

In the light of this, we might modify the title of this paper and ask ourselves: “Who should be afraid of MT?”

The answer is easy: *Bad* translators should be afraid of MT.

One might be tempted to say, ok, then there is no problem, because bad translators are only a minority.

But, once you think about it, in most cultures anybody can call herself or himself a translator, because this is not a legally protected professional designation. It is safe to assume that the majority of real or self-proclaimed translators on the market have no academic degree in translation and lack the necessary competences. Even if we look at academically trained translators only, in Germany alone, the 15 higher education institutes with T&I programs have an annual output of more than 500 translators. It would be naive to assume that all of them will be excellent translators. What is true for teachers, engineers, lawyers and dentists also applies to translators – they have a degree, but not all of them are good.

To prove my point, let us consider the scandalous result of a small market test I had done in 2012 (Schmitt 2013). In that test, I placed a translation job with seven

translation service providers. Six agencies, one free-lancer. One of the vendors was one of the largest and most well-known translation agencies in Germany. On their websites the TSPs claim to offer utmost quality, translation by experts, proofreading, etc.

The text was part of a technical translation examination at the end of the Master's program at the IALT. It consisted of one page taken from a car owner's manual, the relatively trivial description of the different selector lever positions of an automatic transmission.

Fig. 23 shows the results of the translation quality assessment.

#	TSP	€ incl. VAT	€/word	Error score	Q grade
1	K	59.50*	0.154	39	5
2	V	58.00*	0.150	84	5
3	E	53.55*	0.139	6	1.7
4	Ü	52.55	0.136	15	3.3
5	R	41.65	0.108	28(57)	5
6	B	37.03	0.096	46(72)	5
7	l	19.00	0.049	31	5
		*=Prepaid!			

Figure 22: TSP test: Prices and quality.

The names of the seven providers in column 2 are hidden.

Column 3 shows the total price of the translation, including VAT. Three vendors required pre-payment – so I paid over 50 Euros blindly for a translation which I hadn't seen yet.

Column 4 shows the price per word. As you can see the highest price is EUR 0.154, the lowest price EUR 0.049 per word.

I checked the quality, using the same criteria and the same standards as those needed to pass our translation examinations at the IALT in Leipzig.

Column 5 shows the error score, i.e. total number of error points. The scoring system is insofar similar to that in SAE J2450 as the score reflects the number of errors as well as their weight, i.e. their impact on the usefulness of the translation. A key difference to SAE J2450 is that SAE J2450 counts repeated word errors every time it occurs, whereas we count it only once (which means that under an

evaluation according to SAE standard, the results might be even worse) (SAE J2450 2005; for details on our system see Schmitt 1997). The parenthetical values in the column „Error Score“ arise if one takes into account that in these translations each (!) end of line (also in mid-sentence) was completed with a hard return, which is absolutely unprofessional and unacceptable.

Column 6 shows the grade allocated to the score.

The limit between pass and fail is an error score of 20.

Consequently, *five out of these seven translation service providers would have failed the translation exam* at the IALT. Fig. 24 visualizes the magnitude of this scandal. The black columns reflect the errors and show the extent to which most of these human translations are in „the red zone“ – far beyond anything that would be tolerable. We have no reason to assume that the translations were made by Google Translate. Because the two most expensive translations were the two worst translations. Please also note that the cheapest translation at EUR 0.049 per word had the third-best error score.

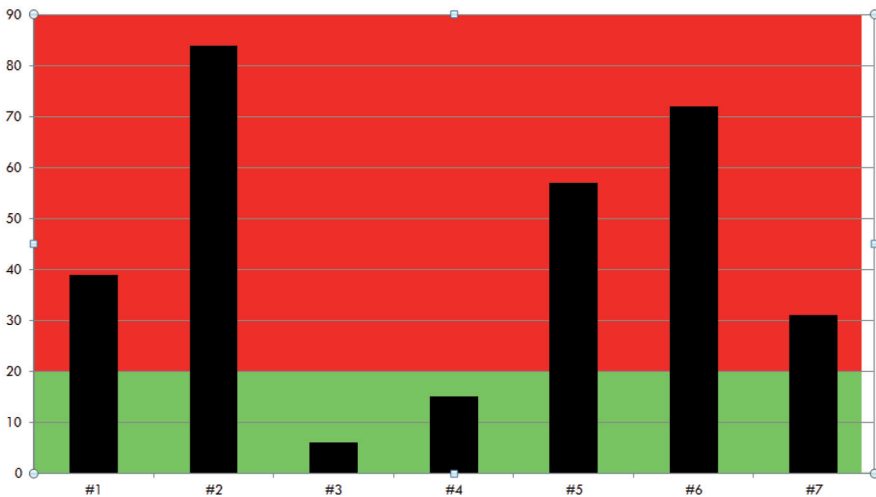


Figure 23: Reality test: 5 out of 7 translations fail.

Now let us consider the perspective of translation clients:

- 1) A human translator is at least 400 times slower than a MT program.
- 2) MT is virtually free of charge. Even if you buy a local system, the cost is negligible.
- 3) Placing a translation project with a translation service provider does not guarantee that you get a useful translation.
- 4) There is no reproducible correlation between price and quality.

So, who should be afraid of MT?

Final Answer: *Translators who do not meet customer requirements substantially better than MT.*

Let me add a brief postscript. This is a (translated) quote from a translator's blog on the Internet:

„About 5–10% of the translators on the market are real top professionals, the remaining 95–90% just transfer words from language to language. But the latter are so self-confident that they count themselves among the 10% of top experts.“⁵

Of course this is mere speculation and a rather bold claim, but translators with decades of experience in practice and teaching have agreed with this assessment.

„About 80 percent of translators in court are incompetent“⁶,

says Christiane-Jacqueline Driesen, the renowned expert on court translation and interpreting. And Giselle Chaumien, a free-lance translator with decades of experience, adds:

„3% are real top translators (although I can only speak for Europ. languages), 60% are mediocre, the rest incompetent [...] Of course, people don't want to hear this. You'll make yourself highly unpopular by saying this. But that's the reality.“⁷

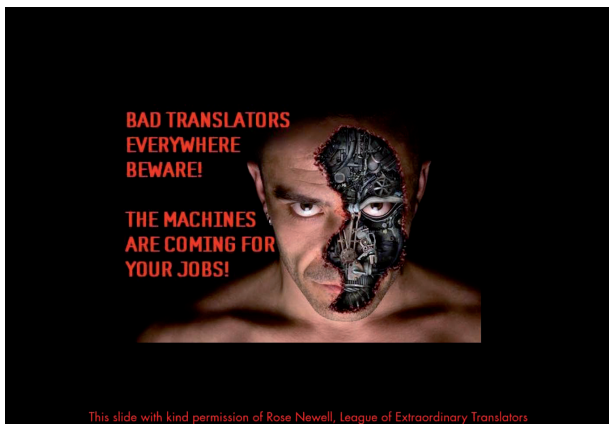


Figure 24: Bad translators beware – the machines are coming for your jobs.

⁵ <http://www.ruesterweg.de/2014/07/was-zahlen-agenturen-ein-versuch/#more-1621>

⁶ http://www.focus.de/politik/deutschland/dolmetscher-ich-spucke-auf-ihre-glatze_aid_144243.html

⁷ <http://www.gcw-communications.com/>

A small note at the end: The English text of this article – also what you are reading right now – has been completely translated by Google Translate. From German into English – fully automatically. I have only made minor changes here and there. So do not say that there is no machine translation. Or that it can never work. Or that it is always useless. It exists and it works. How well it works depends on the source text and the purpose of the translation.

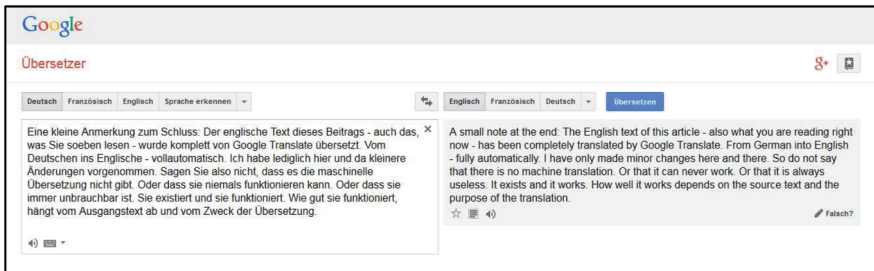


Figure 25: Ultimate MT sample: This article.

Bibliography

- Bauer, Regina (2002). *Linguistische Evaluation maschineller Übersetzungssysteme*. Diss. Leipzig: Marcus-Schriften.
- Heise (2010). „Maschinelle Übersetzung gut für den Überblick“ – *c't-Test: Übersetzungsprogramme für Desktop und Internet*. <http://www.heise-medien.de/presse/Maschinelle-Uebersetzung-gut-fuer-den-Ueberblick-1611373.html> [21.04.2014].
- Henzel, Kevin (2012). „The MT Debate is All Wrong: The Focus on „Quality“ and Post-Editing are Translation Industry Fixations that Miss What Clients Actually Value“ <https://www.linkedin.com/groups/MT-Debate-is-All-Wrong-44105.S.185459913> [21.04.2014].
- Klivanec, Daniel (2013): „The way forward with MT@EC in 2014 and beyond“. http://ec.europa.eu/isa/documents/presentation-klivanec-ep-20131203_en.pdf [13.07.2015].
- MT@EC (2015). *Machine Translation Service*. http://ec.europa.eu/isa/actions/02-interoperability-architecture/2-8action_en.htm [13.07.2015].
- Muegge, Uwe. (2001). „The best of two worlds. Integrating machine translation into standard translation memories. A universal approach based on the TMX standard“ *Language International*. http://works.bepress.com/uwe_muegge/30.
- Muegge, Uwe. (2006). *Fully Automatic High Quality Machine Translation of Restricted Text: A Case Study*. <http://www.mt-archive.info/Aslib-2006-Muegge.pdf> [21.04.2014].
- Muegge, Uwe. (2007). „Controlled language: The next big thing in translation?“ *ClientSide News Magazine*. http://works.bepress.com/uwe_muegge/4 [21.04.2014].
- Muegge, Uwe. (2008a). „Dispelling the myths of machine translation“, *tcworld*. <http://www.tcworld.info/e-magazine/content-strategies/article/dispelling-the-myths-of-machine-translation/>.

- Muegge, Uwe. (2008b). *Machine Translation*. <http://www.muegge.cc/machine-translation-software-introduction.htm>.
- Netzwelt (2010). „Sprachgewirr: Online-Übersetzungsdienste im Test“ <http://www.netzwelt.de/news/83063-sprachgewirr-online-uebersetzungsdienste-test.html>.
- SAE J2450 (2005): http://standards.sae.org/j2450_200508/ [13.07.2015].
- Schmitt, Peter A. (1997): „Evaluierung von Fachübersetzungen“. Wotjak, Gerd/Schmidt, Heide (1997) (eds.): *Modelle der Translation. Festschrift für Albrecht Neubert*. Leipziger Schriften zur Kultur-, Literatur-, Sprach- und Übersetzungswissenschaft 2. Hamburg: Vervuert. 301–332.
- Schmitt, Peter A. (2013). „Translators on a Global Market: Actors or Victims?“ Forstner, M. / Lee-Jahnke, H. (eds.): *CIUTI-Forum 2012 – Translators and interpreters as key actors in global networking*. Bern: Peter Lang, 285–304.
- Schmitt, Peter A. (2014): „Wer hat Angst vor MÜ?“. Baur, Wolfgang et al. (2014)(eds.): *Man vs. Machine? The Future of Translators, Interpreters and Terminologists*. Proceedings of the XXth FIT World Congress, Berlin 2104. Berlin: BDÜ Fachverlag, 77–92.
- Schmitt, Peter A. / Gerstmeyer, Lina / Müller, Sarah (2015): *CIUTI Survey 2014*. Frankfurt: Peter Lang (in print).