# YOU TRUST YOUR MOTHER

**The first machine translation demonstration ever held probably took place on 7 January 1954 in New York. On that historic date, a few carefully chosen Russian sentences were run through an MT system comprising just a handful of grammatical rules and a baby dictionary. And out came a very – in hindsight suspiciously – respectable raw translation. This PR success sparked more than a decade's worth of lavishly funded research – all alas ultimately destined to end as abruptly as it had begun, upon the ALPAC Kiss of Death in 1966.**

## BUT YOU CUT THE CARDS

**by Claude Bédard**

They say that humankind ignores history's lessons, at its peril. And, as a monument to this eternal truth, the MT demonstration – with all its power to bamboozle – has spellbound a generation of short-memoried human translators, and doubtless landed more than one poor sucker with a bill for a white elephant. Indeed, for the sellers, the demo has become the standard means of parading their systems' capabilities to potential buyers. The typical scene around the computer screen at conferences and exhibitions is of translated text coming out acceptably – often too – accurately, accompanied by the punters' restrained yet genuine admiration: "Hey, not bad at all," "Impressive . . . interesting," "Pretty good, eh!"

Now, if you're seriously thinking of buying either MT or CAT software – and you're an LT reader – it can be safely assumed that you're much too smart to buy a pig in a poke. You'll want to make absolutely sure that everything you know about a system is true, before you're persuaded to buy one. So, you'll want to conduct investigations of your own. If a system catches your fancy at a public demonstration, you'll arrange for a private demonstration. And before you start to think about buying, you'll pick the brains of an objective expert. Of course, before you put on your gumshoes and start trudging, there are stances to be adopted and groundwork to be done for all three such events. And even if you're just window-shopping, the more prepared you go, the more you'll learn – and the more fun you'll have, too.

To begin with: the public demonstration. Here, of course, you can only gain a first overall impression of an MT system. All the same, first impressions are always deep – so they may as well be accurate. The seller will naturally want to paint the rosiest picture possible. And at this stage, s/he holds all the aces. The standard demo text has been prepared in advance – so the standard output is bound to look good. And the temptation for a mere mortal to display his wares in their best possible light is understandable. What you most need to understand, however, is that the standard demo translation is virtually worthless in teaching you anything about how systems really perform.

At the public demo, there are five ruses that the seller may use – ranging from mere naughtiness to playing chicken with the Trade Descriptions Act. But if you do your homework, you can detect most of them – and take countermeasures:

# RUSE#1

## HUMAN POSTEDITING

The less-than-perfect raw output has been touched up manually. This is not just naughty. It's outright cheating. In the olden days, you could get your ears cut off for stuff like this.

### EXAMPLE

**English Source Text:** "It is fundamental that the inspection *should be* performed the same day."
**French Target Text:** "Il est fondamental que l'inspection *soit* effectuée le même jour."

### DETECTION

It is highly unlikely that the system will have been programmed to translate the modal auxiliary "should" as the present subjunctive "soit' – though it just so happens to be the perfect thing to do here. Unless some gross overcoding has been perpetrated – for instance "should be performed' coded as an idiom – this is a clear sign of manual touch-up. "Devrait être" will have been changed into "soit."

### COUNTERMEASURE

Ask to have the translation command input before your very eyes – and make sure you check the filename used.

# RUSE#2

## OVERCODING

The seller has coded the dictionary too specifically for the sake of the demo text. The cad!

### EXAMPLE

**Eng. ST:** "The high voltage amplifier has been enhanced *with* two extra filters."
**Fr. TT:** "L'amplificateur à haute tension a été amélioré *par adjonction de* deux filtres supplémentaires."

### DETECTION

The translation of "with" as "par adjonction de" – rather than the default "avec" – is too clever by half. In fact, it's brilliant – though in practically any other context it would be nonsensical. Obviously, "with" has been coded this way specifically for the demo text.

In addition, "high voltage amplifier" will have been coded as an idiom – or multiword entry – in order to yield "à" instead of the default "de." Since it's a specialized term, this is perfectly legitimate, but should not be mistaken for linguistic processing.

### COUNTERMEASURE

Ask which dictionary has been used for the text. If several, pick the most specific. Then ask to have it listed on the screen. Look for unusual idioms. Alternatively, you can "break" a suspected idiom by asking for one of its words to be changed in the source language. For example, in "high voltage amplifier," "hig"' to "medium." Then have the sentence retranslated.

# RUSE#3

## UNDERCODING

The seller has undercoded the dictionary in order to avoid ambiguity problems in the demo text. For example, by removing homographs of demo text words. Craftier than overcoding. Detection difficult. Still very naughty.

### EXAMPLE

**Eng. ST:** "Transfer motor to *clean* work area for repair."
**Fr. TT:** "Transférer le moteur à l'aire de travail *propre* pour la réparation."

### DETECTION

Here, "clean" is an attributive adjective. The translation is perfect, and may have been output spontaneously. On the other hand, "clean" might just as well have been a verb, and the original output "nettoyer l'aire de travail." It is quite possible that the demo text has been given a little helping hand through the removal of the verbal homograph from the dictionary.

### COUNTERMEASURE

Ask for "clean" to be replaced by another adjective with a verbal homograph, such as "clear." Or ask to have "transfer" changed to "clean," in order to have two homographs of the same word in one sentence.

Once again, ask which dictionary has been used for the text. Pick the most general one, and look for missing homographs such as "light" coded only as a verb. If you're really smart, ask for extra homographs of other demo text words to be inserted into the source text.

# RUSE#4

## OVERPROTECTIVE PRE-EDITING

No special dictionary coding, but the source text has been pre-edited in such a way as to weed out translation problems. Detection demands a thorough overall knowledge of the source and target languages and the problems between them. Not exactly cheating – but hardly kosher.

### EXAMPLE

**Eng. ST:** "The main amplifier is installed on the upper shelf and comprises all the necessary accessories."
**Fr. TT:** "L'amplificateur principal est installé sur la planche supérieure et comprend tous les accessoires nécessaires."

### DETECTION

No homographs, no multiple translations, no structural ambiguities. Any low grade system will translate this sentence perfectly – at least into French. A whole text like this won't tell you a thing about the systems's capabilities.

### COUNTERMEASURES

There's not much you can do. You just need to be aware of what the stumbling blocks are in a particular language pair.

# RUSE#5

## OVERPROTECTIVE DEMO TEXT SELECTION

No special coding and no pre-editing. What the seller has done is to run a number of different texts and select the one that comes out best. Detection is of course impossible. In fact, given the ethics of the marketplace, this is hardly a ruse at all. At least you're seeing the real thing – albeit under a flattering spotlight.

As wised up and vigilant as you are, if you're still impressed with a system at a public demonstration, you'll ask for a paper printout of the demo translation to take home for scrutiny. Once you've analyzed the texts – and still found no skullduggery – your next step will be to arrange your own private demonstration. Here, the seller is likely to be much more relaxed and candid than in front of a crowd. And – in an office – you'll have more time to talk than in an exhibition hall.

At your private demo, you can demand to have a text of your own translated, including a number of sentences containing specific difficulties. Not ridiculous trick texts such as chunks of James Joyce or the Penguin Dictionary of Proverbs. Just those including specific thorny differences between the source and target languages – involving, say, tense usage or prepositions. The best and fairest way to prepare for this is to send the seller – in advance – a list of all the words in your text, thus allowing him/her to code them into the dictionary in advance. This saves time at the demo itself. Then, when you bring your text – on a compatible diskette – any of its phrases that qualify as idioms, may be coded as such in your presence.

At this stage, as well as inspecting your text's raw translation itself, you can learn a lot about the system's potential from its dictionary coding. You'll ask as many questions as you can. If possible, borrow the coding manual for further study. Chances are that the more complex – and costly to prepare – the entries are, the more sophisticated the linguistic processing will be – although this is not an absolute rule. Enquire in detail about the system's peripheral features – word processing, import/export, corpus analysis, and user friendliness. And try to make sure you know what other systems have to offer in this respect, lest you get overexcited with so-called "unique" features.

After your private demo – and before you start thinking about signing cheques – you'll consult an MT expert. S/he'll give you a good idea of what life with an MT system is like. As in other high-tech fields, if anything can go wrong, it will. S/he may even be able to give you advice about finance, too. All the same, you'll still conduct your own feasibility study, making sure you compare like with like in figuring out potential productivity gains and hidden indirect costs . . . But that's a whole article apart, and one that this LT subscriber looks forward to reading.

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