

The great STE myth

Michael Bergstrom deliberates the effectiveness of Simplified Technical English.

STE is a waste of time and money, and it can result in poor-quality technical documentation. It is the Esperanto of the technical world and is doomed to failure in its present form.

I would like to make clear that this statement is my opinion and does not necessarily reflect the opinion of the ISTC or of its members. My statement will undoubtedly rustle a few feathers, but hopefully I've now got your attention. This article intends to tackle some of the myths that are propagated by STE proponents who, in my experience, comprise largely:

- Theoretical linguists
- Associates of companies that produce and market STE compliance software
- Associates of the ASD STE standards organisation.
- Junior technical communicators with limited technical background who have succumbed to the STE propaganda.

But that's enough feather rustling, let's start with explaining what STE is.

STE (Simplified Technical English) is a short way of describing technical English that is written in compliance with the specification ASD-STE100. The definition taken from the official ASD-STE100 website (www.asd-ste100.org) reads as follows:

ASD-STE100 (STE) is a controlled language developed in the early Eighties (as AECMA Simplified English) to help the users of English-language maintenance documentation understand what they read. It was initially applicable to commercial aviation. Then, it became also a requirement for Defence projects, including Land and Sea vehicles. As a consequence, today, primary texts of maintenance manuals are mostly written in STE.

On commercial aviation, since 1986, STE has been a requirement of the ATA Specification i2200 (formerly ATA100) and ATA104 (Training). STE is also a requirement of the S1000D Specification. The European Defence Standards Reference (EDSTAR) recommends STE as one of the best practices standard for writing technical documentation to be applied for defense contracting by all EDA (European Defence Agency) participating member states.

Well, the first thing that is clear from the above text is that it is not written in STE! (it's not even written in plain English!) I find it perplexing that an organisation promoting its official standard for a simple way of writing English

would publish a definition of such poor quality on its official website. Not only does the text break many of the STE rules, it also contains inconsistencies in spelling and capitalisation. To me, that speaks volumes. Not least that STE is not applicable to all types of documentation. So, let's try my definition of STE, this time written in Plain English (which by the way is applicable to all types of documentation)

STE is a version of English that uses simple language and restricted vocabulary and grammar.

I'll bullet point some of the key features of STE (not all):

- There are about 900 words in the STE general dictionary
- You cannot use words that are not approved or are unknown
- You can add industry-specific technical words into the dictionary
- You are only allowed to use one word for one meaning
- You are not allowed to use a word for more than one part of speech; that is, you are not allowed to use a word as both a verb and a noun (for example, "check" as a verb is not allowed)
- You are restricted with the grammar you can use. It disallows some grammatical constructions
- There is an absolute word limitation on sentence length and paragraph length.

The spirit of what STE is attempting to do is good. Indeed, it has guidelines that share the same principles as Plain English, for example,

- Use simple English
- Use the active voice
- Use the imperative case for procedural steps
- Keep sentences and paragraphs short
- Use bullet points and lists where possible

The difference between STE and Plain English is, however, that Plain English provides constructive guidelines, whereas STE attempts to enforce good practice with arcane rules. And this simply does not work for most types of text.

So now I've explained what STE is, I'd like to tackle some of the mythical statements I have encountered in various documents, on various websites and at various seminars.

The myths

Myth 1: STE enjoys widespread use

I have done a lot of research trying to find evidence of this. But such evidence is curiously

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elusive. I have been in search of some solid figures for a couple of years now. I have scoured the web, I have asked several STE proponents and I have even asked the standards organisation itself. But nobody has been able to (or is willing to) give me any figures supporting its “widespread use”. So, until somebody can provide me with some facts (as opposed to conjecture), I am confident with my assumption that it does not enjoy widespread usage, and that it actually has a very niche market.

Allow me to qualify “widespread usage”. According to the latest UK government statistics:

At the end of June 2018, there were 4,075,891 companies on the total register and 3,798,095 on the effective register.

This is just incorporated companies in the UK. For the sake of simplifying this discussion, let's round it to four million. So, what would you consider widespread usage? 90%? 50%? 10%? 1%? of this number? 1%, would be 40,000 companies and 0.1% would be 4,000 companies. I would bet a significant amount of money that if the figures were available, the number of companies in the UK using STE would not even run into four figures: 400 companies (a very generous estimate) would be 0.01%. Even if it is as much as this, this does not exactly qualify as “widespread usage”.

By contrast, the Plain English Campaign is proud to publish figures on its website. More than 1,600 organisations pay for the privilege of using the Plain English crystal mark, and countless other companies use Plain English but don't pay for membership or the crystal mark.

Myth 2: STE is good for all types of technical text

Absolutely not!

Proponents argue that the use of STE can be widened beyond procedural text to encompass all types of text. Although some companies attempt to do this, I would strongly advise them not to. STE is very bad when it comes to conveying the meaning of complex technical ideas. When you are limited to just words, without the benefit of tone of voice and human body language, it is very difficult to convey complex ideas. Words alone account for a small portion of a total communication experience. Body language and tone of voice count for the major part. But as technical communicators, we only have words, as we can't talk to our readers face-to-face. So we need to keep hold of all the tools we have to perform this difficult task.

When you read a technical description, an article, or a text book, it is very apparent that each publication has its own methods of making the text as palatable and engaging as possible. So, the text takes on a “body language” of its own. This textual body language oils the text, making it flow well and easier to understand.

The text needs the subtleties and richness that the English language provides, otherwise it becomes difficult and clunky to read.

With technical texts, you are generally not reading for pleasure. You are reading to obtain as much technical understanding for as little effort as possible. Hifalutin, complex writing, used to be fashionable, because it was considered “professional”. It used to be more important to show off your literary prowess than to write English that would have the best chance of conveying a complex idea. The writing of technical descriptions should be as plain and simple as possible, but it should also use the textual body language so that it flows well and is easy to read. If you disallow most of the words in the English language, ban valid grammatical constructs, and then start replacing these with words and constructs that are not perfect but “will do”, you run the risk of rendering the text difficult to read, or even worse, incomprehensible. You also run the risk of changing the meaning of the text, which of course could be a disastrous intervention.

In short, STE is only suitable for simple procedural text.

Myth 3: STE improves consistency

When surveying technical communicators with the question: “What is the most important aspect of good technical writing?” It is surprising how many come back with “consistency”.

NO IT IS NOT! I argue it is better to be 90% right than 100% wrong!

The most important aspect of good technical writing is conveyance of meaning. It is true that good consistency may improve the conveyance meaning, so consistency is important if it helps in this respect. One area in which consistency is essential for the accurate conveyance of meaning is with technical terminology. It is vital that we have consistency in the terms we use to describe technical things. STE can help here if the technical terms are added to the technical dictionary. But this is not the preserve of STE. Plain English and even traditional English recommend terminology lists and glossaries to ensure that the correct term is used to describe a technical object. These terms can be put into a Plain English checker as well as an STE checker. Or they can be added to the custom dictionary of a word processor or CMS.

STE proponents will argue that STE inherently results in more consistent language than Plain English, simply because with a severely restricted word count, it must do so mathematically. However, this is not necessarily the case. When writing STE, the usual process is to:

1. Write normal English.
2. Run it through an STE checker.
3. Replace non-approved and unknown words for approved ones.

When you are limited to just words, without the benefit of tone of voice and human body language, it is very difficult to convey complex ideas.

4. Rewrite where necessary.
 5. Check the compliance rating to ensure it has reached the set standard.
 6. If it passes, continue. If it fails, go to step 3.
- Different technical communicators will have different interpretations of how to do this. Some may take STE very seriously and attempt to achieve more than 90% compliance. Some may take a more relaxed approach and achieve ratings of less than 70% compliance. Some will replace a non-approved word with one STE-approved word, while others may replace the same non-approved word with a different STE-approved word, while others may simply accept the non-approved word.

You can see where I am going with this can't you? Yes, it can even be detrimental with regards to consistency.

Myth 4: STE is an efficient way of writing

STE proponents will argue that using a restricted vocabulary and grammar set makes the process of documentation efficient.

It doesn't!

The implementation of STE can be immensely expensive. Yes, the standard is now free, and there are inexpensive STE checkers available (some are expensive though, so watch out!). But authoring and editing time is NOT free. It is a very expensive resource for your organisation.

Only if you have been writing STE for a long time will it be natural for you to write in STE natively. Most technical communicators will:

1. Write in their native "normal English".
2. Run the text through a STE checker.
3. Rewrite it to attain the required compliance level.

The amount of time this takes depends on the author's experience level. If you are inexperienced in writing STE, the overhead of achieving STE compliance can be huge. The overhead decreases as the author becomes more experienced at writing STE, but there will always be an added cost.

Myth 5: STE makes text easier to translate

This one really infuriates me! In a doomed quest to widen the uptake of STE, some bright spark decided to play the translation card. A brilliant move that has managed to fool many. The STE community now cites "translation" as one of the key "benefits" of STE. This false claim plays on the obvious principle that simple text is easier to translate than complex text. But this is the role of good technical English, NOT STE.

Let's take a step back and ask ourselves again why STE was established in the first place: **to provide content in English for readers with limited English.**

In other words, STE was designed to *avoid* translating material. It was never intended to be translated, and the arguments laid out in this

article also highlight why you shouldn't even attempt to translate it. But OK, for now, let's put this aside and look at the statement again:

"STE makes text easier to translate!"

This is a very sweeping and unqualified claim. Firstly, it does not state what STE is compared with. You may as well say "A 10-cm length of string is longer!" Longer than what?

Certainly, compared with legalese, Shakespearean literature, or even just badly written English, it is easier to translate. But it is certainly not easier to translate than well-written plain English. It is in fact much harder for the translators. Technical translators are trained in translating technical English into their native language. They are highly competent in the source language (they would not be translators otherwise). In general, technical translators are not trained in STE (which can be quite different and sound very "un-English"). Technical translators prefer clear, concise, well-written plain English. They do not like to translate English that is clunky and has been artificially tampered with.

Myth 6: STE saves translation costs

Well. This is certainly true if STE is used for the purpose for which it is intended; that is, to NOT translate the material in the first place! Again, the statement fails to provide the comparison baseline.

I believe this claim compares STE against what I call "traditional English" (the hifalutin literary masterpieces I mentioned earlier). If this is the case, the reduced word count may result in cheaper translations. But I can safely claim with a significant amount of authority that:

STE IS NOT CHEAPER TO TRANSLATE THAN PLAIN ENGLISH.

The two reasons that the STE proponents flaunt to back their translation claim are:

1. Reduced word count
2. More matches in translation memory.

I'd like to address each point in turn:

Point 1: Reduced word count.

When comparing STE with Plain English, this is simply not true. In fact, STE results in a higher word count than plain English, because it disallows some words and grammatical constructs, which results in rewriting into clunkier English. Let's look at the following step of a procedure, written in plain English and then in STE.

First in plain English:

- Check the temperature.

Now in STE:

- Do a check of the temperature.

For this procedural step, plain English uses three words. But because STE does not allow "check" as a verb, it is replaced by "Do a check of". This results in a sentence length of twice the number of words and, therefore, *twice* the

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translation cost for this sentence. This is just one small example. Furthermore, it sounds very un-English and may confuse the translator who is expecting normal English. Because STE places restrictions on the words and grammar used, the text ends up being clunkier and less flexible. This results in the requirement for more words to express the same meaning than for plain English. So overall word count is increased when compared to well-written plain English.

Point 2: More matches in translation memory

These days, translation companies use translation memory to store words and phrases. The stored material is then compared against the new text to be translated. Identical phrases are identified as “exact matches”, while similar phrases are identified as “fuzzy matches”. This helps the translator to speed up the translation. Sometimes (not always!) the translation agent passes these efficiencies on to the customer by giving discounts according to the number of exact and fuzzy matches.

Logic says, therefore, that with a much lower vocabulary, and restrictive grammar rules there will be more matches. Although this may be true for the short term, it is not necessarily the case for the long term. All vocabulary and phrases are stored in the translation memory, so in the long term it is just a case of building up the translation memory. But even in the short term, a few more translation matches will not make a significant difference to the cost, when looking at the entire cost of the translation project.

Although the first translation of new STE material, may yield a slightly higher number of matches than the first translation of non-STE material, the difference in translation cost will be marginal. This minimal cost saving is more than outweighed by the longer word count of the text anyway.

My conclusion: Plain English is cheaper to translate than STE.

Use the right tool for the job

The STE dictionary of permitted words comprises about 900 general words. In addition, it permits the use of “technical names” and “technical verbs” specific to your industry, providing there is no clash between any of the technical names and verbs (for example, screw).

By contrast, the standard English dictionary consists of half a million words or more, of which between 10,000 and 50,000 words are commonly used. We need a good chunk of this vocabulary to convey meaning properly. That’s why the vocabulary is there in the first place.

A dictionary of 900 general words plus technical words is simply not sufficient for most technical communication. It may be sufficient for very simple text types such as

maintenance procedures, but it is not enough to describe complex concepts without losing meaning or making the text difficult to read and translate, no matter how skilled you are at writing STE.

Imagine you are a mechanic and you need to loosen an 11-mm nut. In the toolkit there is no 11-mm spanner because a new company policy resulted in the removal of all odd-numbered spanners to increase the efficiency of spanner usage. A note inside the toolkit explains that you can use a 12-mm spanner and a matchstick to undo the 11-mm nut. Well, this solution may do, but it is not perfect. It will take you longer and you may end up with a damaged nut if you are not careful.

I think you see what this analogy is trying to point out.

Does STE have a place in the world of technical communication?

After reading this article, you will be surprised to hear my answer: yes it does (albeit a small one).

It belongs in the place for which it was originally intended, and confined there under lock and key and surrounded by armed guards, so there is no chance of escape. That place is for service and maintenance procedures for safety-critical equipment, where the documentation must be in English and the audience has limited knowledge of the English language. It is suitable for this niche, and this niche only.

Should you use it?

My advice is to only use STE where regulatory compliance forces you to do so. Don’t voluntarily shackle yourself with this standard. Rather, invest your money in training your technical communicators to write sensible Plain English. Create a useful style guide and terminology list to which your technical communicators can refer. Trust your technical communicators to do a competent job without attempting to control their output with STE compliance software and STE editing personnel. **C**



Michael Bergstrom is a chartered electrical and electronic engineer. He started to specialise in technical communication from 1994. He has had roles as an electronic design engineer, product manager, technical translator, technical author, documentation manager, as well as being a freelance technical documentation consultant for many years. He considers himself as “An engineer who can write” rather than “A writer who can engineer”.

Only use STE where regulatory compliance forces you to do so.

References and further reading

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