Translating Information Technology Terms into Tamil : Challenges and Perspectives

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Abstract

That the job of translation of scientific and technical terms has not attracted much participation as has the literary and religious texts done is a fact that can hardly be denied. While we have registered ourselves as pillars of Information Technology, that we have not shown our strength in our language is a sad fact to accept. While there has been a strong desire from us to teach our children through our own mother tongue, we have taken only minimal steps in bringing out texts of science in our languages. It is a reality that we have to accept. But the advent of Information Technology, especially Internet in our every day walks of life has made this need essential and vital. The need for translating the texts related to computer science and internet usage is realized more now than at any other time because the world is rather progressing fast in these fields.

Scope of the paper

The growth of a language and its community depends mainly on the strides it makes in the fields of science and technology and hence it becomes necessary for any nation builder to import the new developments in science from other parts of the world through translations. Now a new dimension is added to this need which makes us to have more concern. Data exchange through Internet has become the basis of growth in any field in this world. If this exchange has to be done through an alien language, then the expected result could not be achieved. The intended objectives could be achieved quickly within the timeframe if the data exchange through internet could take place through the language of the user. To make the younger generation keep abreast of and the common people to utilise the recent developments in the fields of science and technology the use of internet has to be facilitated through one's native tongue. This paper attempts to focus on both the challenges and perspectives that we face while translating Information Technology terms into Tamil. At one level, we have the task of translating the texts dealing with these registers. At the other level, we have to translate and standardise the technical terms relating to these two disciplines. A general discussion is offered here based on the observations of the sporadic and sometimes systematic attempts at these two levels.

Texts on theory and usage :

A major division can be made in these two areas of computer science and internet usage. They are texts on theories and texts on their practical applications. The first category includes textbooks and books dealing with this science. The classification becomes meaningful

if the translator looks at them from the point of view of the receptors of these translations because each category has a different purpose and audience.

The textbooks on this science range from the simplest books on the basic principles of logic and computer science to the special treatises and books on the complex and technical aspects of application of this science. The receptors of these textbooks in translation are students at one end and a select few readers at the other end. Books on theories discuss facts on the already existing theories and put forward new theories refuting or complementing the already existing ones. Hence these translations also need to carry out the equivalences already employed for the existing concepts and have to coin technical terms for the new ones taking into account of the existing equivalents.

The texts on the usage, application and on the uses of computers and internet are addressed at first to the public and then the discerning readers. In this type of texts the message has to reach the audience, here the receptors of the translations, instantaneously unlike the textbooks that set the basic ground for further development.

The difference in the nature of these two groups of texts lies in their appeal to the audience. The students who use the text get them registered in their practice and develop them in future using the inputs they receive through these translations. Hence the translator has to be very cautious in exposing them to the correct equivalences. In the second category, which consists mainly of easily readable articles, essays and write-ups on the use of computer science, what matters more is the message and not the language. The public or the common users and readers need to know about the use of technology and not more about the technology itself. Hence in translating such texts importance is given to the matter and not to the form. This results in providing more than one equivalent to technical concepts and often in transliteration of the terms.

Translation Process :

What makes the translation of scientific and technical texts significantly different from the translation of literary texts is the probability of one to one correspondence for the concepts and terms. Since the scientific concepts are explained and the technical terms are used in unqualifiedly objective terms, it becomes easy for the translator to arrive at the corresponding equivalents and to use them in all occurrences wherever necessary. There can never arise the possibility of occurrences that carry semantic implications of different nature. But yet we have problems. At one end, there are codes, symbols and certain technical terms that cannot be translated but transliterated. At the other end, there are terms that need to be both translated and transliterated.

Dynamics of Technical Translation :

Technical translation is one part of specialized translation; institutional translation, the area of politics, commerce, finance, government etc is the other. Institutional translation is cultural while technical translation is non cultural and therefore universal. This shows and affirms the fact that the benefits of technology are not confined to one speech community.

Hence we need to bring any part of technology that is beneficial to our people in our language. That is the primary duty of a generation to its offspring.

Technical translation is primarily distinguished from other translations by terminology, although terminology usually makes up about 5-10% of a text. But they form the vital part of a translating process of a technical text. Hence most of us first decide and devise the glossary of technical terms and then proceed to translate the text.
Technical texts are free from emotive language, connotations, sound effects and metaphors, if they are written well with the characteristics of a technical text.

Text Books and Books :

If we take into account the textbooks in Tamil on computer application, we have to lament over that. Because of the policy of the Government of Tamilnadu to introduce Tamil medium, we have textbooks on Computer Science in Tamil at the eleventh and twelfth standards only. The text books in Tamil for the eleventh standard which are even now in use, are the worst examples of how a text on science should not be translated. "அடிப்படை மொழி" for BASIC "உணவுப்பட்டியல்" for menu, "தாமரை" for LOTUS -- are some of the ' classic ' equivalents that glare at us.

The twelfth standard text book has been authored by the present writer, keeping in mind the norms of a technical translations, which has incidentally been commended by the specialists in the field.

There are other types of books for popular use. They treat the subject in an interesting manner shorn of technical jargons, with the lay men as their target readers. Books written by authors like the popular writer Sujatha, come under this category. Sujatha's contribution in this regard is significant. It is to be noted that his aim, as stated in the foreward of his book, is to introduce this science to Tamil, for as he has observed, experts from Japan and France have learnt this science through their mother tongue only. A third type of texts is found in the very serious attempts of scholars in Tamil language and Computer Science from the Anna University, Chennai and Tamil University, Thanjavur.

A comparison of the various equivalents used by these writers brings to light the problems they have faced in coining certain equivalent terms. Most of them try to use transliteration for 60 % of the terms. Words like ' computer ' , ' oxide ', ' binary ', have found transliteration; while phrases like ' tuned circuit', ' control card ' , and ' input unit ' etc., have found effective equivalents.

Combining translation and transliteration for a simple phrase is widely prevalent in the texts discussed above. Examples :

tunable magnetron -- இசைவிக்கும் மேக்னட்ரான்
integrated circuit -- இண்டக்கிரேய்ட் இணைப்பு
electron gun -- எலக்ட்ரான் துப்பாக்கி

Some times two equivalents, one in translation and the other in transliteration are provided by the same author.

Examples : atom -- ஆட்டம், அணு
gate -- கேட், கதவு
mask -- மாஸ்க், மறைப்பு

But it is also to be noted that some of these writers from whom these examples have been taken out, have introduced newly coined equivalents at a later stage. In some cases they have replaced the earlier equivalents with new equivalents. Such revisions show the dynamism of the translators.

In the eighties (1984, 1987 and 1988), the Computer Centre at Tamil University headed by Prof K.C.Chellamuthu published a few textbooks in Tamil on Computer Science. It is not an exaggeration to say that they set themselves as the best examples of how a text book on Computer Science should be written. The author sets the following as his objectives:

a) any syntactic ambiguity in the translated text is to be weeded out completely.

b) words from ancient literature of the target language that are found as appropriate equivalents, but not in current use should be used. Thereby an appropriate equivalent is found and at the same time a word gains currency; and,

c) when there are two equivalents that are considered appropriate, both of them should be provided for the test of survival so that one will gain more currency than the other and will get established by use.

The supplementary approach, cited as third, is the appropriate technique for standardizing technical terms. This leads to the selection of the closest possible equivalent by the users. Following are some examples from his books.

auxiliary storage -- துணை நினைவகம், துணைக் கொள்ளகம்

chip -- பல்மின் சுற்றட்டி -- பல்மின் சுற்று சேர்ப்பி

random access --- கட்டற்ற அணுக்கம், முறையில்லா அணுக்கம்

IT news for popular use :

At present, one can find now almost all magazines and newspapers allotting one or two pages on application of computer science and internet. There are four magazines in Tamil exclusively on Computer science and Internet. These show the interest of the public in understanding the application of this science and technology to their day to day life. The writers who contribute to these pages have approaches and styles of their own in providing equivalents in Tamil for the technical terms. Since the target audience are mostly bilingual, the terms are often transliterated. But there has been a constant attempt to introduce and follow Tamil

equivalents wherever possible. One magazine has a glossary of technical terms as a regular feature.

There have been attempts to bring " dictionaries and glossaries of technical words ". The Saiva Siddhantha Kalagam has brought one which has been updated. Sujatha has brought out "ஆயிரம் கணிப்பொறி வார்த்தைகள்", Anna University has published "கணிப்பொறிக் கலைச் சொல் அகராதி". A recent notable addition to this list is Manavai Mustafa's "கணினி கலைச் சொல் களஞ்சிய அகராதி".

Perspectives :

With all these under observation and based on my own experience as a researcher and translator in the field of translating both literary and technical texts,   I submit below my suggestions with reference to the translation of texts on computer science and internet :

In science, the language is concept-centered; in technology it is object - centered. Computer Science is both science and technology whereas Internet is predominantly technology. In one we have to learn thoroughly the basic vocabulary, the translations and in the other we have to obtain a clear idea of the outline, composition, function and result as well as learn the action verbs with which they normally collocate. A basic objective while translating a technical text or term is that while one translates a text one has to be able to stand back and understand roughly what is happening in real life, not just, or as well as, convincing himself that the sentence or the term he has just translated makes sense linguistically. Every sentence or a term must have a thread of action running through and one should grasp it to give an effective translation.

As indicated earlier, it is the terminology that makes a technical translation different from other types of translation. The first attempt one needs to take up is the listing of technical terms. Then the terms that are not to be translated in that list should be identified first. Pronouns, acronyms , eponyms, measuring units, terms that have become outdated and terms or nouns accepted in the target language, here Tamil, though in transliterated form should not be translated.   Names like Lotus, Netscape and Autocad, eponyms like Ada, Pascal   and acronyms like BASIC are to be transliterated and not to be translated. Units like bit, byte, giga byte need to be transliterated and not translated. Obsolete terms like Card Reader, Hollarith Card, Punch etc., need not be translated. Words like ' key ' which in its transliterated form brings the concept in its true sense need not be translated. விசை, விரல், பட்டி, குமிழ், திறவு and a few more do not bring to the mind of the readers the intended effect; rather they bring a distorted image.

As for acronyms,   there is a tendency to translate the words that are behind the acronyms, and it may end up with incorrect equivalents. Acronyms are an increasingly common feature of all non - literary texts, for reasons of brevity or euphony, and often to give the referent an artificial prestige to rouse people into finding out what the letters stand for. In science and technology they become internationalism and hence need not be translated by any chance, but should be transliterated.

Words for which the available equivalents in Tamil may look derogatory have to be avoided. For example, the equivalent for ' mouse ' ளூ0 in Tamil does not go with the customary approach to the word. Hence as Prof Krishnamurthy has done in his text book, yet another equivalent like "சொடுக்கி" has to be used. 'noise' , 'bus' are other such terms.

After identifying the technical terms that are not to be translated a strategy has to be adopted for translating other terms. As far as possible single word equivalents should be preferred to others, though such equivalents are always rare between any two languages.

When there are more than one equivalent that are found equally applicable, all such equivalent terms may be used in tune with the contexts. These equivalents need not be selected by the translator's will and choice but must be based on the acceptability by the target reader. This will pave way for the test of time and the best accepted term will stand as the best equivalent. For example, for the term " data " we have தரவு, விவரம், தகவல், செய்திக் குறிப்பு etc. Translators select from this group according to the target reader and some times use all at various contexts.

When we proceed with the process of finding an equivalent we have to do a componential analysis of the term. A componential analysis is one where the different semantic components of a term in different contexts are analysed. This analysis will fix the exact meaning of the term For example the term 'firmware' which is a combination of two words. The first one may be used as an adjective giving the meaning " strongly fixed'. It may also be taken as a composite noun giving the meaning " a company ". Here in computers this refers to the programs fixed in ROM chip by the company which by its nature is firm and not flexible like the programs in RAM. Now what are we to take? "firm " meaning ' very strong ' or a software program provided by ' the company'. Translators have used both these variants accidentally both are correct though "strongly fixed" finds a more favoured usage.

Componential analysis of terms will certainly help in fixing the exact meaning. Words like 'bus', 'cursor', 'screen' 'net' 'web' belong to this group of words for which such an analysis is needed. For example, for the word 'register' in the term "index register" one may tend to have the equivalent 'பதிவேடு' . But the best equivalent will be 'பதிவகம்' in consonance with other equivalents like நினைவகம், தேக்ககம் etc. The other word 'index' too has two variants, a noun and a verb. One is 'அட்டவணை ' (table) and the other is ' சுட்டு' (point out to). The translators have used both the variants indiscriminately, which needs to be avoided.

A distinction has to be made between a technical and a descriptive term. In the source text a term may be technical; but since it is quite new and needs some more explanation it may be translated with an equivalent which may be descriptive. This occurs where the signified is quite new and has not gained much currency among the target readers. Or an equivalent may not be available in a single word in Tamil. For example the term 'offline' meets such a situation. Terms like 'notwork' , 'netizen' and 'nastygram' have not yet met with single word equivalents.

Normally, one is used to translate technical and descriptive terms by their counterparts. But what is more important is that one should avoid the temptation of translating a descriptive term by a technical term for the purpose of showing off one's knowledge thereby spoiling the

linguistic force of the source language descriptive term. For example 'காலதர் ' for 'windows' is one such term.

Certain words or phrases may just be in the verge of becoming slangs. They need not be translated directly. For example " mouse potato " and " couch potato" are almost slangs and need not be translated literally. Instead, one can have "கணினிப் பித்தன்" and "டிவி பித்தன்" . Here again the acronym டிவி suits much more than "தொலைக் காட்சிப் பெட்டி".

Certain terms which are quite homely and colloquial may suit certain technical terms. Since such terms bring home the meaning of the terms to the readers, they may be used without resorting to a literal translation of the terms. For example, the term 'cache memory' may be translated into "அஞ்சறை நினைவகம்" where அஞ்சறை is a common kitchen equipment which has a synonymous function to cache memory.

In the same way words from ancient or modern literature may very well be adopted for suitable technical terms. For "artificial intelligence" we may use "நுண்மான் நிழைபுலம்" may be used,

Attempts are often made to provide a glossary or dictionary of technical terms. Some have come through already. A fact that has to be borne in mind is that this arduous job cannot be undertaken by an individual. There need to be a committee consisting of an expert in the particular science, a linguist, a translator and a lexicographer. An individual may know the technology and the languages involved. But the exposure and the experience in using the language by the particular language expert will certainly be higher and his presence is essential.

Once the terms are finalised or selected according to the contexts, then the format of the text should be the next consideration. As a technical translator, one has to vary his format in relation to his customer, viz. the target reader. If the translation is for the reading of a group of people who just want to know the things superficially, just for that time it may be in a house-style. If the translation is for a publication, it has to be an intense one with the reading of all reference articles and books as a mandatory pre requisite.

Never stops but continues :

Any technology nowadays is an explosion. Computer science and internet usage escalate sequentially and have occupied a place on the frontier knowledge where one has to be most uptodate. One has to access the Data banks, terminology bureaus, information kiosks, the latest edition of all books and the latest journals on the subject. There is nothing wrong even in going for refresher courses in the selected fields. These along with the suggestions presented above can make a translator's job more adequate and satisfactory. Even then a translation has to be periodically revised because newer things appear and get the place of the older ones.

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