Software Localization: An Exploration of the Problems Encountered by Localizers in Transferring Messages from English into Kiswahili

Rufus Karani Munyua, P. I. Iribemwangi and *Tom M. Olali*
University of Nairobi

Abstract

Regardless of translation type, rendering messages from the Source Language (SL) to the Target Language (TL) is a process that involves a chain of translational activities that require the translator to apply relevant strategies and solutions based on situation, context, client specifications and text function among others. All these require possession of relevant translatorial competences. The paper examined the linguistic aspects of English and Kiswahili as the SL and TL respectively that rendered transfer of message from English to Kiswahili problematic during the localization of some of Google's software products. To do this, we did both qualitative and quantitative analyses of the lexical and terminological units (LTUs) in both English and Kiswahili. The results have revealed that there are linguistic challenges in localizing software into Kiswahili considering the technical requirements for authoring software. Thus, it is necessary to develop an approach to mitigate those challenges in order to improve the communicative effectiveness of the localized products as well as their overall usability.

Key words: Localization, transfer, translatorial competence, lexical and terminological units

Introduction

Translation competence is defined as 'the underlying system of knowledge needed to translate' (PACTE, 2003). It is an overall ability of the translator to successfully carry out the transfer process of the source text (ST) to the target text (TT), taking into account a host of many things including the nature (genre) of the text, its purpose and the target reader. It comprises sets of sub-competences: technological, cultural, linguistic skills and transfer. Translation competence, it is argued should be achievable, in terms of performance in transfer competence and production, through the awareness of the relative merits of different transfer

strategies and careful selection from potential translation solutions (Schäffner*et al*, 2000). It is against this backdrop that this study specifically examined the transfer competence for the case of localization translators in Google.

Malmkjær (2009) describes transfer competence as the knowledge of the translational relationships that allows a translator to match languages appropriately when translating, as distinct from their ability to use their languages individually. It is the kind of competence that comes about when the localization translator is able to marry subject equivalence with linguistic, textual and cultural competences to deliver a localized text material that functions successfully in the target audience.

Transfer competence is a key component in software localization as it is the one responsible for ensuring the localized texts adhere to structural and semantic requirements of technical texts that are a characteristic of software, key among them being clarity, conciseness and briefness. This is done for the simple reason that the primary function of LSP (where software localization falls) is conveyance of information. Usability research has also shown that users normally do not have all the time to scan screens to find the content that interests them. Therefore a brief, unambiguous text would help in decreasing their processing cognitive load and highlighting the specific content that they are interested in on a particular page. In order to achieve this goal, unnecessary repetitions and content that are common knowledge among the targeted discourse community is avoided.

Linguistic Challenges in Transferring Messages from ST to TT

There are a myriad of linguistic issues and challenges which make transfer of message from ST to TT problematic to the localization translators as technical mediators. Some of them are TT related while others are TT related. We will discuss some of the linguistic features from components of the grammar and textual elements that are within the scope of lexical and terminological units (LTUs).

Where the ST Referent Does Not Show Clear Grammatical Markers

Although there are some broad similarities between Kiswahili and English morphology, Kiswahili has some characteristics that differ from English, for example the fact that Kiswahili nouns are often bound and need a prefix, unlike in English, where most nouns are free. Other times, essential part(s) of English grammatical structure are embedded in the grammatical structure resulting in vague use of reference and pro-forms that may confuse the translator. This problem is particularly common with segments that are made up of single word LTUs as demonstrated in the following examples:

(1) Completed
(2) Processing

The terms above lack important linguistic cues that would assist the localization translator to understand what they represent. Firstly, it is not clear which noun is being referred to, whether inanimate or animate. This is because Kiswahili verbs must take an affix denoting the noun. The problem with lexical units such as the ones above was that if the localization translator made an error by assuming the wrong referent, this had serious implication on the message and distorted the meaning significantly. From reviewer interviews, this was cited as one of the biggest source of errors by localization translators accounting to 75% of errors resulting from ST grammatical elements such as gender and tense.

In cases where context was not sufficient to tell what the referent is, only project experience would help imagine that in such cases, it is the device that is doing a task and not a human being. Otherwise without such experience, the localization translator would resort to guesswork which has potential of producing a misleading Kiswahili equivalent. If, for instance, he assumed the referent is animate and rendered the term in (1) as *amekamilisha* instead of *imekamilika*, the message would be substantially distorted thereby preventing achievement of ST informative function. Such errors are quite intolerable among software users.

The second problem is tense whereby, the localization translator is unable to tell whether the ST is in past tense or in the present perfect tense. In Kiswahili, both tenses are marked differently. In the above case, it was difficult to tell whether the verb is in simple past tense or in perfect past tense since in digital texts, non-finite verbs such as the one in our example are used in nominal and adjectival function because there is no need for tenses, other than the present tense.

Polysemy

Polysemy was also identified as a major cause of transfer problems and it was found to exist in virtually all parts of speech: nouns, verbs, and adjectives. Data revealed a number of common content terms in the ST that one would expect to carry simple, single meaning but instead were found to carry a number of related meanings, or senses in localization context. One critical aspect of such polysemous terms that we found is that their different senses though closely related were not very similar to each other. As Klein and Murphy (2001, 2002) notes, there is evidence showing that there is little semantic overlap between senses, supporting the view that senses of a polysemous word must then be represented separately. This, we can illustrate using a commonly used term "open" which when used in one sense means 'make operational', as in *open an Hangout* versus senses of 'turn on', as *Open the App*.

The senses above are clearly closely related, as they are both carrying the sense of 'starting something'. Nonetheless, one is not conceptually similar to the

other and there are specific contexts when their senses must be brought out with utmost specificity, lest the message is distorted or missed altogether. The former has the sense of 'starting', and the later, 'turning on'. Incidentally, one of these senses is usually core, in the sense that it is fairly constant across different products. For this case, the sense of 'starting' is the core, meaning that it is the dominant sense.

When encountering a polysemous word with no biasing context, it was reported by localization translators and revisers that there was a tendency of simply retrieving the core meaning and applying it. This is supported by Duffy, Morris & Rayner's (1988) argument that if one meaning is significantly more frequent than the other, then that meaning tends to be more activated, and the less frequent one less so.

Transfer problems caused by polysemy emanated from the fact that there were instances when the peripheral sense was to be applied. Thus, localization translators were required to discern this difference and offer the right equivalent for the peripheral sense, which, often times was not provided for in the glossaries and language resources such as bi-lingual dictionaries. A common example from the data and which runs across all products is *information.* The most common context of its usage is in informative messages where users are provided with a link to access more information about software functionalities. In all the cases, 'details' is core sense. However there are other peripheral senses such as 'news' and 'explanation' as demonstrated in the sentence below.

(3) We have received **information** that your blog has been soliciting user's sensitive personation **information** such as passwords and credit card details etc.

The first 'information' in the above sentence brings out the sense of 'news' and the second one, 'details'. A combination of both linguistic and transfer competences are necessary to spot this unique context where a sense different from the core is required in order to correctly achieve its function in the TT by rendering it as:

*Tumepokea **habari** kuwa blogu yako inajaribu kukusanya **taarifa** nyeti za binafsi za mtumiaji kama vile nenosiri, maelezo ya kadi za mikopo n.k*

Multifunctional Words

Words that can be used as different parts of speech were also found to cause transfer problems as they caused the segments containing such words to have deeper structures, hence resulting in different comprehensions as exemplified by the following:

Table 1: Multi-functional LTUs

English	Equivalents +parts of speech
(4) Display	*onyesho* (noun) A visual output device used to display information. *onyesha* (verb) To show something; often used in the context of displaying ads *Onyesho* (adjective)
(5) Search	*Tafuta* (Verb) To try to locate something (a file, a folder, a computer, a text). *Utafutaji* (Noun) The process of seeking a particular file or specific data.
(6) Set	*Weka* (verb) *Seti* (noun)

From a linguistic point of view, the translation of multi-functional terms such as the ones above was problematic when they appeared as stand-alone and the context was lacking or insufficient. Often times, the content to be translated is usually disembodied due to the format in which it is authored, stored, and/or maintained. A common example is the database content used to drive many software applications which occurs in strings that may be displayed as labels in the software interface, values in menus, pull-down lists, dialog boxes or within pop-up messages that inform the user about the status of the application (Dunne, 2006). If a word such as 'display'stands alone, the task of translating is daunting since the localization translator cannot tell if it is referring to the noun, verb or even an adjective. Even when there is a context but which is insufficient, the problem still can present itself as in the following case.

(7) Search word graph

(8) Search term

When presented with a multi-word lexical units like the one above, the dilemma that the localization translators were faced with was really to tell what the term like 'search' meant? Is it referring to a noun (term used for searching some other information) or a verb that is giving a command (search for the term)?

The fact that the developers usually do not export information to help the translator identify the subject associated with the string and to see which texts belong together was identified as the main cause of this problem. The two senses have a very wide semantic gap making guesswork not an option, lest the communicative effectiveness of the text is lost. A localization translator who renders a similar LTU 'Search views' as *tafuta mara ambazo umetazamwa* (literally, search the number of times you have been viewed) instead of *mara*

ambazo umetazamwa kupitia utafutaji (literally, the number of times you were viewed through engine search), changes the text function from instructive to informative thereby distorting the *skopos* of the ST. It thus called for rigorous query filing with the client to get more context about the use of such terms.

Unfortunately, localization projects come with a reasonable amount of pressure due to time constraints, with 'crazy' deadlines and penalties for the team in case such deadlines are not met. In fact five out of six respondents reckoned that time constraints and short deadlines would either most likely or likely affect their ability to render a translation accurately. This scenario coupled with the fact that filing such queries is a process that requires some level of digital competence, five out of six respondents reported that they relied on their project-related experience to solve transfer problems of such texts, which sometimes did not result to accurate renditions.

Proper Names

Proper names present in the data covered several categories: names of persons, countries, software products and Applications, geographical places, and festivals. In order to be able to present and discuss transfer problems caused by proper names, we further divide them into two categories (Fernandez, 2006) - conventional proper nouns and loaded proper nouns since each of them presented unique transfer problem.

Conventional proper nouns are those that seem to have no obvious semantic meaning; their morphology and phonology do not need to be changed to fit in the target language, or they have an international status (ibid.). Loaded proper nouns, on the other hand, are proper names which are not being used purely as 'identification marks' (Bączkowska 2016) but carry semantic load. These required a great deal of transfer expertise in order to translate them, without affecting their cultural and communicative value.

A general observation about proper names was that regardless of the category, proper names were identified by both localization translators and reviewers as among textual elements that presented transfer problems as a result of many factors. The first one is lack of consistency in their translation particularly names of countries since there wasn't a clear criteria for translating them. Whereas there are names of countries with one-to-one equivalents in Kiswahili, for example Unites States of America- *Marekani*, Russia – *Urusi*, there were others that did not have such equivalence. There are also those ST proper names that have both Kiswahili and English correspondences. A good example is Ethiopia whose Kiswahili correspondence is *Uhabeshi* and Ethiopia in English.Data revealed lots of inconsistencies and instability due to the adoption and application of more than one translation method or technique. It was difficult to tell for instance, when foreignization was to be adopted and which situations

called for naturalization since there was no clear criterion for doing so. For example, it is not clear why 'Cape Verde' was translated as *Kepuvede*, which not only defies Kiswahili phonological pattern that could have borne *Kepuvade*but also the noun structure when it is rendered as one word instead of two as is in the original. Similarly it is not understood why Argentina, Guinea, were naturalized as *Ajentina a*nd*Gine* respectively while Kuwait and Brazil are not. Faced with this state of affair, neither general localization knowledge nor project-specific experiences are adequate in dealing with the transfer problem.

English common nouns that were converted into proper names were another category of loaded proper names that caused transfer problems to the localization translators. These terms caused ambiguity between name readings and common nouns. Good examples are 'Ideas', a Google programme that connects users, experts and engineers to conduct research and feed new technology-driven initiatives, versus 'Ideas' the thoughts/conception, or 'Instant' a Google messaging tool versus 'Instant' an adjective referring to an action occurring at once or immediately. The problem was caused by the fact that although in English, capitalization usually disambiguates proper names and common words, this was not possible at sentence beginnings and in single-term segments, which formed the bulk of terms. This complex localization issue called for a combination of many other competencies and project-experience to aid transfer of information.

Data from glossaries and Google products also revealed that there was over-use of capitalization where segments show titles in title case and since descriptions do not specify that they are titles, localization translators confuse some of the constituent words as proper names. Consider the following message segments:

(9) *Google+* ***Birthdays*** *only come from the contacts in '****Your Circles****'*

In the example above, it was difficult to determine whether 'Birthdays' was a proper name or a common noun since the description just gave it as a label explaining the birthday settings.

Data revealed lack of clear strategy to localize source culture names. In some instances such names were substituted with target-culture names through neutralization. There are also cases where culture-specific proper nouns in English were replaced with cultural-neutral proper nouns in Kiswahili, for example Jack for Ali, or Musa. The challenge here being that Kiswahili speaking locale is very multicultural and therefore localization translators expressed difficulties in selecting a name that is 'neutral' enough to take care of this diversity.

Acronyms and Abbreviations

Use of abbreviations has been constantly increasing in computer technology. But generally they are used for technical reasons, key among them being to avoid long names and descriptions (Medina, 2017). They are also complex because of their multiple combinations and their unpredictable nature and because most of them are hard to translate into other languages without losing part of their nature or their meaning (Medina). In fact, there are very few abbreviations that have successfully been translated in Kiswahili and their contracted nature maintained. Examples are www (World Wide Web) in English and www (*Wavuti wa Walimwengu*) in Kiswahili. These are exceptions to the common tendency of pure borrowing.

Examples of acronyms such as GIF, FAQs, RAM, ROM are present in virtually all software products. The main problem transferring such acronyms and abbreviations into Kiswahili which we found is that whereas Kiswahili may be rich in other word forming processes: derivation, borrowing, and neology, it lacks capacity to create words through acronymy and abbreviating as compared to English. As a result, there are many English acronyms and abbreviations that localizers are unable to give equivalents in Kiswahili for fear of losing their semantic meaning. Consequently majority of them are transferred verbatim even when there is a possibility of a risk of compromising their communicative effectiveness.

The other problem is the inconsistency in rendition of abbreviations and acronyms in the translation resources available to the localization translators. In some cases, the acronym is first spelled out in Kiswahili then the English one put in brackets as is the case of the first two examples in the list below. Other times, they are transferred as they are in English as shown in the fourth example.

(10) CRM – *mfumo wa kuratibu mahusiano na wateja* (CRM)
(11) DMCA –*Sheria ya Millenia ya Hakimiliki Dijiti*
(12) FAQs –*Maswali Yanayoulizwa Sana*
(13) CVC DNS EPC EV, EULA FTP GEG

Looking at the ST acronyms and abbreviations, they are look-alike in form and one cannot quite understand why the same rule is not applied in their rendition. In (10), the abbreviation is spelled out in Kiswahili and the ST form closed in brackets. In (11) and (12) they are rendered like the first one but without the ST in brackets. The list in (13) is transferred verbatim. Lack of standard criteria of transferring this type of LTUs made work of localization translators be that of guesswork while transferring new acronyms and abbreviations that come up every day with advancement in technology.

The lack of enough capacity by Kiswahili to create words through acronymy and abbreviating as compared to English compounded the problem of transferring

days and months which are a common phenomenon in all text types. In the translation files sent to localization translators, months (January, February, March and the rest are abbreviated as Jan, Feb, Mar etcetera any time they appear in the ST. Likewise, days of the week (Sunday Monday, Tuesday all the way to Saturday) are abbreviated as Mon, Tue, Wed, Thur, Fri, Sat and Sun as shown in the screenshot below.

Message 51	**VegaAndroid : 5573111768585039681**

Message text

Tue

Description

Day of week: Tuesday. [CHAR LIMIT=3]

Message 52	**VegaAndroid : 5203182613553690259**

Message text

Wed

Figure 1: A Screenshot of an Abbreviated ST

The main technical reason for abbreviating days of the week and months is the fact that dialog boxes which house most of them have finite sizes and shapes and therefore there is character limitation for both the ST and the TT. This scenario presentslocalization translators with a dilemma as whether to abbreviate such strings or not. If they decide to abbreviate them in Kiswahili in order not to exceed the character limit set, they then risk coming up with abbreviations that made no sense to the software users.

For week days, the situation is even worse due to the fact that all of them except *Alhamisi* (Thursday) and *Ijumaa* (Friday) take the morpheme '*juma*' thus it would be problematic abbreviating them keeping the morpheme and a part of the other morpheme while at the same coining an abbreviation that is comprehensible.

ST acronyms and abbreviations that have plural markers like PCs, GIFs SMSs presents transfer problems especially when they appeared as standalone terms in which case it was impossible to mark plural in Kiswahili.

(14) Say more with photos and GIFs.
Sema Zaidi ukitumia picha na GIF
(15) Send SMSs *Tuma SMS*
(16) PCs/MACs *PC/MAC*

The messages above perform referential as well as appellative functions. (14) forexample is appealing to the user to use photos and GIFs (Graphics Interchange

Format) to add flare to their stories. Plural markers for the referents (GIFs and PC/MAC) are essential in bringing clarity to the message because, in their singular form, the said referents may not achieve the effects required, which could be "types"(of GIFs, PCs/MACs). Unfortunately, there is no way that plural can be marked in Kiswahili without adding an adjective like "*nyingi*". If this was the case, then the rationale for using acronyms and abbreviations to avoid long names would be lost.

Lexical Choice Dilemma: Loanwords vs Precise Technical Terms

Lexical choice, one of the main problems in localization at the lexical level, gave rise to transfer dilemma whereby localization translators were required to make a decision whether to use neologisms versus loanwords and the second dilemma involved choice between use of precise technical terms versus general terms. Consider the following examples:

(17)	Celebs	*Watu mashuhuri* versus *Maseleb*
(18)	Sticker	*Kibandiko* versus *stika*
(19)	Media	*Kiambatisho* versus *midia*

As for the first dilemma, results obtained from the localization translators who participated in the study revealed that borrowed words were preferred to coined ones. The participants stated that the rationale behind such a preference is that the coined neologisms stood the risk of not conveying the information inherent in the original terms. The reason for this failure can be explained by Talebinejad et al (2016) who claim that neologisms are primarily coined with regard to the linguistic aspects of the terms, or rather breaking the terms into their linguistic components. As a result of this, in (19)'media' was rendered as *kiambatisho*. This is after considering its semantic meaning that 'media' are just 'tools used to store and deliver information or data'. Thus, they share the same semantic field with *kiambatisho* (attachment). The same applied to 'celebs' in (17), a term which simply means a person who is well known and gets lots of public attention, or attention from other people. The term was rendered as *watumashuhuri* (literally important people).

The above terminological choices to a great extent risk disregarding the informative aspects central to effective communication. Whereas '*maseleb'* and '*midia'* cannot be construed to mean anything else, *watu mashuhuri* could be taken to generally mean important people based on their place in the society and whether they are valued by the society regardless of their socio-economic status. This is quite different from a celebrity who is famous and highly honoured person because of his/her achievements. With *Kiambatisho*, elsewhere in other products, the term is a known equivalent for 'attachment', therefore using it to mean anything else creates a high possibility of causing ambiguity to the product users.

As the localization translators observed, most of the time, coined Kiswahili terms risked failing to convey the information embedded in the original technical term, and so they preferred to use the borrowed term. Moreover, the fact that Internet has 'exposed' most of the target users to 'netspeak', it is then expected that borrowed terms would be easier to recognize than new coinages which, as we have seen above, some have potential to be ambiguous.

As for the second dilemma, localization translators were confronted with situations where they were to choose between two competing terms, one being a precise but technical equivalent of the ST and the other one, a general term that is communicative but less specific. We use 'technical' here in the sense of being not comprehensible by many Kiswahili speakers because it is either a low frequency term, or they are restricted to a specific region within the Kiswahili speaking locale. Of course their decision was highly influenced by the text type and function. The following are examples from data.

(20) Deadline exceeded *Imepita tarehe ya kumalizika* versus *makataa*
(21) Share *Shiriki* versus *tumiana*

In (20), *makataa* is the formal equivalent for 'deadline' but it is known to very few language speakers, mainly the Kiswahili language technocrats. So, although this would be the most specific, localization translators settled for *Imepita tarehe ya kumalizika* which is a less specific but more communicative paraphrase. As pointed in the previous paragraph, the text is informative and since the message is meant for all users including the 'laymen' then communication takes precedence over accuracy.

(21) is different though. The term *shiriki* is one of the most used terms especially in social media and interactive Apps like Google Shoelace (formally Google+), Google Photos, YouTube and Hangouts, where 'share photos, video, emoji, location and so on is common. Among Tanzanian users, *shiriki* is the known equivalent for 'share'. However, Kenyan users prefer *tumiana*. Despite this fact localization translators chose *shiriki*. Due to the high frequency usage of the term, it is picked with hope that eventually it will gain acceptance and popularity among Kenyan users as time goes by.

Context Issues

The issue of lack of or inadequate context was cited by 100% of localization translators as another cause of transfer problems. This is largely because localization of a software product involves translating text embedded in various parts of the software interface and deconstructing that context is required in order to access the information to be translated (Dunne, 2006). This deconstructive process represents one of the greatest challenges for translators working today. Figure 2 shows an example of a software interface (in this case, a dialog box) as

it appears in English. Figure 3 shows the source file with which the translation team must work in order to localize the software.

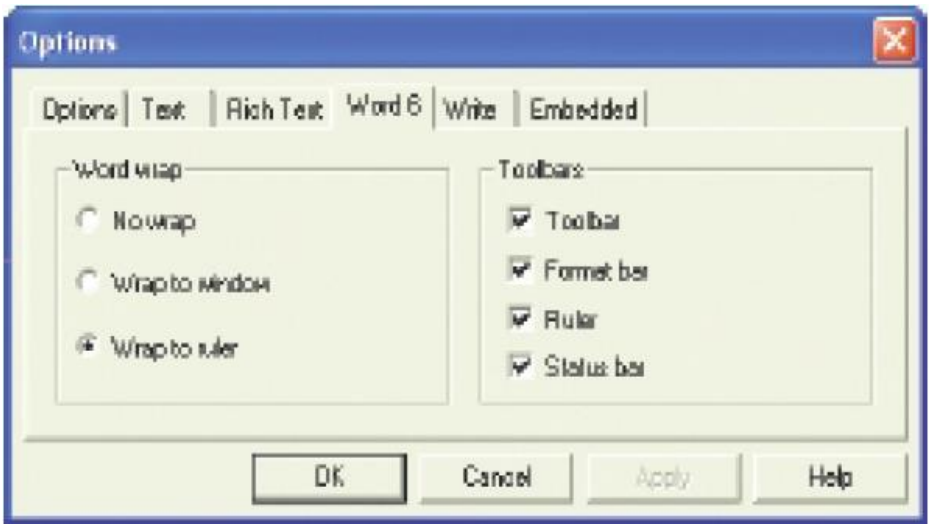

Figure 2: GUI (Dialog Box) of English Software to be Localized

SOURCE: Dunne, 2006:79

```
IDD_OPTIONS_WRAP DIALOG DISCARDABLE  0, 0, 280, 86
STYLE WS_CHILD | WS_VISIBLE | WS_DISABLED | WS_CAPTION
FONT 8, "MS Sans Serif"
BEGIN
    GROUPBOX        "Word wrap",IDC_BOX,7,7,128,72
    CONTROL         "&No wrap",IDC_WRAP_NONE,"Button",BS_AUTORADIOBUTTON |
                    WS_GROUP,13,21,81,10
    CONTROL         "&Wrap to window",IDC_WRAP_WINDOW,"Button",
                    BS_AUTORADIOBUTTON,13,39,81,10
    CONTROL         "Wr&ap to ruler",IDC_WRAP_RULER,"Button",
                    BS_AUTORADIOBUTTON,13,57,81,10
    GROUPBOX        "Toolbars",IDC_BOXT,144,7,128,72
    CONTROL         "&Toolbar",IDC_CHECK_TOOLBAR,"Button",BS_AUTOCHECKBOX |
                    WS_GROUP | WS_TABSTOP,153,21,68,10
    CONTROL         "&Format bar",IDC_CHECK_FORMATBAR,"Button",
                    BS_AUTOCHECKBOX | WS_TABSTOP,153,35,68,10
    CONTROL         "&Ruler",IDC_CHECK_RULERBAR,"Button",BS_AUTOCHECKBOX |
                    WS_TABSTOP,153,49,68,10
    CONTROL         "&Status bar",IDC_CHECK_STATUSBAR,"Button",
                    BS_AUTOCHECKBOX | WS_TABSTOP,153,63,68,10
END
```

Figure 3: Source File of Same GUI in which Localizers Work

Source: Dunne, 2006:79

The above file is an example of what gets to the localization translator finally to translate. It is a file with isolated language strings that provides a completely different context from that of a file containing a full dialog box. Neither the situational nor the linguistic context is provided. A novice localization translator who doesn't have adequate general localization knowledge and adequate digital competence about things like tags and placeholders may not even pick out what is translatable from context.

The transfer of texts in this format becomes difficult because localization translators may look at neighboring text to try to maintain a sense of context, but oftentimes, their view becomes myopic as they become lost among the thousands of text strings (Dunne, 2006). This is what Melby (2010) refers to as co-text, that is the surrounding text within a particular version of one document, and which if it lacks, the localization translator has to rely on other contexts and expertise to localize.

Although description of what each text segment does was usually provided, including which strings to translate and which to leave in English, there are situations in which translators needed extra information to interpret the source accurately without which, their work became a guessing game [and no one likes guessing games] as exemplified in the following:-

Message 230	**AndroidPlusOne : 2178399411223699506**

Message text

Moderator

Description

Text shown under circle's name in navigation if they are a **square moderator** [project:]
[stringname:../../../../vendor/unbundled_google/packages/PlusOne/res/values/strings.xml:string:square_badge_moderator_navigation]

Figure 4: A Screenshot of a Message Description in GTT

The description though lengthy does not give the localization translator sufficient linguistic context which would help him/her to understand what the term means. In fact the description has added another jargon ‘square’ making things even more complicated. This hampers understanding of the term and other situational contexts. In fact, all the respondents interviewed indicated that description did not help them all the time to figure out the meaning of the strings or terms. When further interrogated why this was the case, two of them cited inadequate information while two others said it was because some descriptions were equally too technical.

Related to this is the fact that localization translators lacked real-world experience using the products as it takes time to embed the translations in the software itself. Ideally, such experience would have cultural and linguistic significance in localization. Just the way a translator would stand a better chance to produce a more accurate translation of a documentation for a piece of machinery if s/he was given an opportunity to first operate it, or see it being operated by another person or in a video, a localization translator would benefit more if they had an experience with the software in the devices that are using it.

In conclusion, we see that the balancing act of maintaining clarity and using precise technical terms constitutes a very important aspect of transfer competence. On one hand, sometimes use of precise, accurate technical terms might baffle most readers thereby failing to achieve the intended purpose of the translation. On the other hand, in the quest to achieve clarity, localization translators can opt for general terms which might as well fail to communicate the nuances embedded in the messages. But depending on the text function, s/he has to make a decision as an expert in translatorial action on the best approach to use in order to transfer the right ST function to the TT. Where a specific but little-known technical term is essential, then it is used consistently with the hope that with time, users will get used to its sense. On the other hand, a general term is used in cases where it does not compromise on the communicative effectiveness of the term.

Conclusion

It is argued in many translation theories that whatever can be expressed in one language can also be re-expressed in another language through various forms of correspondence. Nida for instance distinguishes between formal and dynamic equivalence. Catford retains formal correspondence but picks textual equivalence while Newmark has semantic and communicative translation. Nonetheless, we have demonstrated that when it is about technical translation such as software localization, translation between English and Kiswahili requires transfer competencies and greater understanding of the communicative situation in order to deal with intricacies inherent in software translation and localization such as instances of lack of context in the comprehension of a text segment.

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