

Chapter 1 : Understanding Translation - Anne Schjoldager - Google Books

Interpreting, just like translation, is fundamentally the art of paraphrasing—the interpreter listens to a speaker in one language, grasps the content of what is being said, and then paraphrases his or her understanding of the meaning using the tools of the target language.

This is known collectively as the human genome. The human genome contains around 30 genes, each of which codes for one protein. Large stretches of DNA in the human genome are transcribed but do not code for proteins. The nucleotide sequence of the human genome is now known to a reasonable degree of accuracy but we do not yet understand why so much of it is non-coding. Some of this non-coding DNA controls gene expression but the purpose of much of it is not yet understood. This is a fascinating subject that is certain to advance rapidly over the next few years. Each of these single strands acts as a template for a new strand of complementary DNA. As a result, each new cell has its own complete genome. This process is known as DNA replication. Replication is controlled by the Watson-Crick pairing of the bases in the template strand with incoming deoxynucleotide triphosphates, and is directed by DNA polymerase enzymes. It is a complex process, particularly in eukaryotes, involving an array of enzymes. A simplified version of bacterial DNA replication is described in Figure 2. This makes it impossible for DNA polymerases to synthesize both strands simultaneously. A portion of the double helix must first unwind, and this is mediated by helicase enzymes. The leading strand is synthesized continuously but the opposite strand is copied in short bursts of about bases, as the lagging strand template becomes available. The resulting short strands are called Okazaki fragments after their discoverers, Reiji and Tsuneko Okazaki. Bacteria have at least three distinct DNA polymerases: Pol III can then take over, but it eventually encounters one of the previously synthesized short RNA fragments in its path. The initiation of DNA replication at the leading strand is more complex and is discussed in detail in more specialized texts. This leads to mismatched base pairs, or mispairs. DNA polymerases have proofreading activity, and a DNA repair enzymes have evolved to correct these mistakes. Occasionally, mispairs survive and are incorporated into the genome in the next round of replication. These mutations may have no consequence, they may result in the death of the organism, they may result in a genetic disease or cancer; or they may give the organism a competitive advantage over its neighbours, which leads to evolution by natural selection. Transcription Transcription is the process by which DNA is copied transcribed to mRNA, which carries the information needed for protein synthesis. Transcription takes place in two broad steps. As with DNA replication, partial unwinding of the double helix must occur before transcription can take place, and it is the RNA polymerase enzymes that catalyze this process. Unlike DNA replication, in which both strands are copied, only one strand is transcribed. The strand that contains the gene is called the sense strand, while the complementary strand is the antisense strand. The mRNA produced in transcription is a copy of the sense strand, but it is the antisense strand that is transcribed. Transcription ends when the RNA polymerase enzyme reaches a triplet of bases that is read as a "stop" signal. The DNA molecule re-winds to re-form the double helix. Alternative splicing In alternative splicing, individual exons are either spliced or included, giving rise to several different possible mRNA products. Each mRNA product codes for a different protein isoform; these protein isoforms differ in their peptide sequence and therefore their biological activity. Several different mechanisms of alternative splicing are known, two of which are illustrated in Figure 6. Splicing is important in genetic regulation alteration of the splicing pattern in response to cellular conditions changes protein expression. Perhaps not surprisingly, abnormal splicing patterns can lead to disease states including cancer. This process, catalyzed by reverse transcriptase enzymes, allows retroviruses, including the human immunodeficiency virus HIV , to use RNA as their genetic material. Here, it directs protein synthesis. The ribosome is a very large complex of RNA and protein molecules. Each three-base stretch of mRNA triplet is known as a codon, and one codon contains the information for a specific amino acid. The tRNA is then expelled from the ribosome. Figure 7 shows the steps involved in protein synthesis. Figure 7 Translation a and b tRNA molecules bind to the two binding sites of the ribosome, and by hydrogen bonding to the mRNA; c a peptide bond forms between the two amino acids to make a dipeptide, while the tRNA molecule is left

uncharged; d the uncharged tRNA molecule leaves the ribosome, while the ribosome moves one codon to the right the dipeptide is translocated from one binding site to the other ; e another tRNA molecule binds; f a peptide bond forms between the two amino acids to make a tripeptide; g the uncharged tRNA molecule leaves the ribosome. The reaction of esters with amines is generally favourable but the rate of reaction is increased greatly in the ribosome. The amino acid is transferred from the tRNA molecule to the protein. The presence of modified nucleosides is important in stabilizing the tRNA structure. Some of these modifications are shown in Figure

The Genetic code The genetic code is almost universal. It is the basis of the transmission of hereditary information by nucleic acids in all organisms. In theory only 22 codes are required: Many amino acids have several codes degeneracy , so that all 64 possible triplet codes are used. For example Arg and Ser each have 6 codons whereas Trp and Met have only one. No two amino acids have the same code but amino acids whose side-chains have similar physical or chemical properties tend to have similar codon sequences, e. This means that if the incorrect tRNA is selected during translation owing to mispairing of a single base at the codon-anticodon interface the misincorporated amino acid will probably have similar properties to the intended tRNA molecule. Although the resultant protein will have one incorrect amino acid it stands a high probability of being functional. Organisms show "codon bias" and use certain codons for a particular amino acid more than others. For example, the codon usage in humans is different from that in bacteria; it can sometimes be difficult to express a human protein in bacteria because the relevant tRNA might be present at too low a concentration. Not all combinations are possible; examples of "allowed" pairings are shown in Figure If not repaired by DNA repair enzymes , these mismatches can lead to genetic diseases and cancer.

Chapter 2 : The Joy of Translation and Understanding - DTS Voice

In the field of translation, one often hears the term localization. However not everyone really knows what it means. Both the terms are important and even related; yet there is a slight difference between translation and localization.

Understanding the Challenges of Translating African Languages Understanding the Challenges of Translating African Languages Africa is a continent of high linguistic diversity with over 2, African languages. Such variety, along with other aspects, imposes challenges on providing translation and localization services involving African languages, especially the rare ones. Language service providers LSPs must do their best to overcome such challenges because African languages such as Afrikaans and Swahili, and Bantu languages, like Zulu, are growing in demand. A Look at African Languages Africa has 54 countries that use a variety of languages, including some that are endangered due to the proliferation of other dominant groups and the influence of Western culture. Afrikaans, a language derived from Dutch, and English have become the most used languages for the government and businesses in South Africa. Some rare African languages are even prone to extinction with the risk of the philosophy, history and medical practices they carry vanishing along with them. In the post-colonial era, African people have grown more aware of the value of their linguistic inheritance. Nonetheless, despite the spread of mid-sized African languages in media and primary school education, only a few are considered official at the national level, and colonial languages still prevail. Fortunately, language policies aiming at multilingualism are being developed to give power to rare African languages. Challenges of African Languages Translation Languages across Africa have witnessed a lot of changes and Bantu groups make a very good example of this phenomenon. Even though Bantu languages have managed to expand over a broad territory, their translation is hindered by several challenges. Problems that are normally faced in translation—such as ambiguity, need for paraphrasing and mismatching—seem to be more prominent when translating a Bantu language to English. This is because available resources like corpora and dictionaries are undeveloped or inadequate. Therefore, translators of African languages need to be exceptionally resourceful and be able to create their own glossaries. The impact of such challenges can be significantly diminished when dealing with professional LSPs who are experienced and equipped with all the necessary translation and localization resources. Interest in this market has given English to African translation great importance because even though locals know English, French or Portuguese, they prefer to read manuals and use mobile applications in their own languages. Apart from the localization of websites and mobile applications, there is an increasing demand for translating contracts as well as educational and medical materials into African. Moreover, financial institutions have recently received numerous requirements for English to Zulu translation due to the expansion into South Africa and other countries that speak in Zulu. Zulu Translation Services Zulu language, otherwise known as IsiZulu, is one of the 11 official languages of South Africa and is written using the Latin alphabet. Like other Bantu languages, Zulu is distinguished by clicking sounds referred to as click consonants, which are classified into dental, alveolar, and lateral clicks. This Bantu language is of special significance as it is understood by more than half the population of South Africa and by several people in Botswana, Malawi, Lesotho, Swaziland, and Mozambique. The demand for Zulu translation services usually originates from government bodies who would like to communicate easily comprehensible messages to the locals. However, private sector organizations also seek to translate and localize into Zulu in order to reach their African target audience with their native language. All you need to receive reliable translation and localization services for African languages is to choose the right LSP.

Chapter 3 : Understanding Application Translation and Globalization Support

The 5 Best Translation Apps for Learning and Understanding French WordReference - The Best Cultural Translation App. WordReference is absolutely the place to go for cultural translations.

Understanding the Difference June 18, No Comments In the field of translation, one often hears the term localization. However not everyone really knows what it means. Both the terms are important and even related; yet there is a slight difference between translation and localization. So let us understand both these terms in detail, and get a sense of which term is used in what context, and so on. Translation Translation involves conveying the message of a spoken or written communication in another language, without changing the meaning of the message in any way. It could be translated word for word, or not, depending on the syntax and grammar of the target language. A good translator always considers cultural nuances and thinks how best to translate idioms and colloquialisms. A literal, word for word and bad translation would be: They may not use these words exactly, but if they use the literal translation of beating around the bush, this could be the meaning conveyed. I almost feel sorry for the reader who is sure to be dumbfounded. So I guess you could safely say that it is important for the person performing the translation to be very well-versed in both the languages as well as the cultures of the source language and the target language. Translation Problems and Solutions Localization Yes, translation is very much a part of localization; but it is more than that. It has a broader goal "to make the reader feel that the content was specifically created for that particular language, and not like a translation. Online translations tools recommended by translators Localization may also be required where translation is not. Can you think of an example? Here too, you may need to change certain things like currencies, address formats, even certain terms, because some words means different things in British English and American English. This is also the case with Spanish " it is spoken in many countries; nearly all of South America, in Central America, and of course, in Spain. But there are subtle differences in the usage, in customs, in colloquialisms, terms, and so on. Localization involves accounting for requirements of style, technical standards and the expectations of the readers or users in the target market. Often, there are no exact equivalents for words while translating. That would sound hilarious. It is only when you use localization that you can convey the true meaning of the source text or document. The biggest factor influencing this decision is the content; what type of content it is, and what the goal of that content is. People will buy from you only if they are made to feel special and valued. One of the ways you can do that is to talk to them in the language they know and understand, and love. So a mere translation which does not have a smooth, natural flow, is not going to cut it; you will need to speak to them from the heart. There is likely to be a need for heavy use of local terminology, idioms, pop culture references, colloquialisms and more, to be able to convert a visitor or window shopper into a customer. Dealing with translation feedback Localization in Globalization Localization is very important for any business going global. Though it sounds contradictory, the truth is that when you want to globalize, you need to localize; that is, to globalize your company, you need to localize your products. In America, their burger patties are mainly made of beef, followed by pork " other meats come a long way behind, and they have almost no veggie options. In the Middle East, where the market consists pre-dominantly of Muslim consumers, the chain does not serve pork at all. That is localization for you " complete adaptation to local tastes. Though they changed the slogan in after the Global Financial Crisis, people still tend to associate that phrase with the bank. In linguistic terms, globalization means creating content that is a one size fits all type of solution; it is not obviously, a great one, but it is easy to do, and convenient for the business. It may not however, endear you to your target audience as much as you would want! That is why it is very important to localize " starting with the language, and keeping in mind the cultural nuances. For examples, different numbers, colors and animals are considered lucky, unlucky, sacred or forbidden in different cultures. To be successful globally, it is absolutely essential that you know the local cultures and languages thoroughly and in depth. Otherwise you could end up wasting a lot of time, money and resources. Worse are two examples of products that were successful elsewhere in the world but flopped in some countries because of the unfortunate translations the product names had. Sometimes, to be successful,

you may even need to change the name of your product! So to be a truly successful global business, you need language service providers who can globalize and localize for you equally well – yes, you will need to do some searching, but you will find them! Transcreation and Translation This refers to creatively infusing local flavor into the original copy when you translate it into the target language. You convey the original message, but ensure to include culture specific references and vocabulary that will be appreciated by the target market. The whole idea is to create copy that is more culturally relevant in each target market, but without compromising brand consistency. It is even more complex than localization because it is a holistic approach – it considers the emotional impact that the message will have on the target audience. This form of localization is great to use with marketing content. The main reason being, it allows you to retain brand consistency. A brand has a specific and unique tone and voice, a reputation and a personality; a certain experience that person associates with it. It is vital that in translation, these elements are not compromised in any manner – hence, transcreation. It has been able build an untarnishable trust with their prompt and accurate interpretation. It has become a fast rising player in the translation industry.

Chapter 4 : The Difference Between Interpreting and Translation

She's very understanding. Elle est très compréhensive. Fortunately, he had an understanding wife. Heureusement, sa femme était compréhensive. The job requires an understanding of Spanish. Le poste exige une bonne compréhension de l'espagnol. to have an understanding of sth avoir une bonne.

Chapter 5 : understanding translation Spanish | English-Spanish dictionary | Reverso

If you have an understanding of something, you know how it works or know what it means. They have to have a basic understanding of computers in order to use the advanced technology. American English: understanding.

Chapter 6 : Hamad Translation Award

Understanding The Difference Between Translation and Transliteration Translation A translation is when a translator takes the text of one language (i.e., Greek, Hebrew and Aramaic), which is unreadable to the majority of Christians and converts it to the equivalent text in English (or the common language for another culture).

Chapter 7 : Understanding the Challenges of Translating African Languages | Blog

The Nature Education website, Scitable, is a great study resource for students who want to learn more about, or are having difficulty understanding, transcription and translation. The site contains a searchable library, including many "overviews" of transcription, translation, and related topics.

Chapter 8 : Google Translate

With Reverso you can find the English translation, definition or synonym for understanding and thousands of other words. You can complete the translation of understanding given by the English-French Collins dictionary with other dictionaries such as: Wikipedia, Lexilogos, Larousse dictionary, Le Robert, Oxford, Gravis.

Chapter 9 : To understand in Spanish | English to Spanish Translation - SpanishDict

Translate Understanding. See 6 authoritative translations of Understanding in Spanish with example sentences, phrases and audio pronunciations.