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**INVOLVEMENT OF ARTIFICIAL INTELLIGENCE IN THE  
TRANSLATION PROCESS WITHIN THE UNITED  
NATIONS SYSTEM, PARTICULARLY WITHIN THE  
WORLD METEOROLOGICAL ORGANIZATION (WMO),  
AND EVOLUTION OF THE TRANSLATOR'S  
PROFESSION IN THESE BODIES IN RECENT YEARS**



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## **Foreword**

The writing of this thesis represents the culmination of my second year as a student as part of the Master in Translation and Editing within the Université Jean Monnet of Saint-Etienne. The aim of this thesis is to propose a reflection on the future of translation and translator's profession with the arrival of artificial intelligence. This work is based on the knowledge and experience acquired during my five-month internship within the World Meteorological Organization (WMO), a United Nations specialized agency headquartered in Geneva. Extensive research on this subject, based on quotations, literary or academic references, reliable sources from the United Nations and other, enabled me to enrich this work. As part of this work, we will therefore be interested in the involvement of artificial intelligence in the translation process in the United Nations system, and particularly within the World Meteorological Organization, and we will reflect on how the translator's profession evolved in these bodies in recent years.

## **Introduction**

Communication is essential, which makes translation even more important so that people of different nationalities can communicate and have access to the same information, without distortion. The practice of translation dates back to the origins of human language. At that point, we can mention Saint Jerome, the patron saint of translation appointed by the Roman Catholic Church to translate the Bible into Latin. He contributed to the evolution of translation, notably by the fact that, according to him, translators should adopt a translation ‘meaning for meaning’ rather than ‘word for word’. We can even consider that everything in this world is a translation of something.

In recent years, however, translation has undergone significant evolution, particularly with the arrival of artificial intelligence. Indeed, thanks to algorithms, it is now possible to instantly translate a text from a source language to a target language. With the advent of Internet, translators also have access to a wide range of online resources and translation tools. As a result, the translator’s profession has undergone major changes, since it is no longer just a question of translating, but also of carrying out other tasks such as, for example, alignment or post-editing. We can refer to the United Nations system, which has undergone major changes in linguistic services in recent years, and in particular the World Meteorological Organization, a United Nations specialized agency in meteorology, where I spent five months as an intern in the linguistic department. Despite the arrival of artificial intelligence in the field of translation, the United Nations system remains a system with common and strict rules which requires human presence to ensure the cohesion and accurate translation of documents. Within these bodies, translators have many responsibilities, they must adopt a neutral point of view and must ensure confidentiality. They work behind the scenes even if they have many responsibilities since errors of interpretation or confusion can have serious repercussions. Moreover, open-mindedness and curiosity represent essential qualities for a translator, especially for those working in an international multi-cultural environment, as well as human collaboration and communication. Even though many developments have taken place in the translation field, the presence of a human translator is still essential, particularly within the United Nations system and within the World Meteorological Organization, to ensure an accurate translation, without any mistranslation or other mistakes. Consequently, it raises the question how to train future translators in today’s digital environment and especially with the arrival of artificial intelligence.

In this regard, we are going to look at what role does artificial intelligence play in the translation process in the United Nations system, and particularly within the World Meteorological Organization (WMO) and how has the translation profession evolved in these bodies in recent years? First, the translation discipline in the United Nations system, and particularly within the World Meteorological Organization will be examined. Then, we are going to look at artificial intelligence at the service of translation in the United Nations system, and particularly within the World Meteorological Organization. Last, we are going to analyse the evolution of the translator's profession in these bodies in recent years.

# **I. Translation in the United Nations system, and particularly within the World Meteorological Organization (WMO)**

## **A. Presentation of the United Nations system and the World Meteorological Organization (WMO) and importance of translation in these bodies**

The United Nations Organization is an international organization headquartered in New-York with 193 member states, headed by the General Secretary António Guterres. The six official languages of the United Nations are English, French, Spanish, Chinese, Russian, and Arabic and the UN Charter defines six main bodies that make up the UN system. Indeed, when we talk about the United Nations system, also called the “UN family”, we are talking about the funds, programs and specialized agencies that are part of the UN system. Each of these entities has its own work, its own budget, and its own Member States. The programmes and funds are financed through voluntary rather than assessed contributions. Regarding the specialized agencies, they are autonomous international agencies working with the United Nations, funded by both voluntary and assessed contributions. The UN’s main mission is to maintain international peace and security. It is also about developing good and respectful relations between nations as well as to achieve international cooperation by solving international problems of economic, intellectual, social, or humanitarian nature. The aim of the United Nations is to bring all countries together to take global action that will have a positive impact on people's lives and on the planet.

The World Meteorological Organization (WMO), where I completed a five-month internship, is one of the UN’s specialized agencies. It is headquartered in Geneva, Switzerland (annex 1) and aims to facilitate the free international exchange of meteorological data and information. It is governed by the World Meteorological Congress, composed of 193 Member States and Territories, which meets every four years to set policies and priorities. The Congress is led by an Executive Council led by the President. WMO originated from the International Meteorological Organization (IMO), which originated from the 1873 Vienna International Meteorological Congress. It became the World Meteorological Organization (WMO) in 1950 by the ratification of WMO Convention. WMO plays a unique and powerful role in contributing to the safety and welfare of humanity through its Programmes. It supports the implementation of several environmental conventions which contribute towards ensuring the sustainable development and well-being of nations. The Organization establishes an “international collaboration and

cooperation regarding the state and evolution of Earth’s atmosphere, its interaction with land and oceans, weather and climate, and the resulting distribution of water resources”<sup>1</sup>. Recently, the World Meteorological Organization adopted the Early Warnings for All Action Plan during COP27, which represents one of the largest action plans implemented by WMO in recent years. The aim is to protect people and assets from hazards such as floods, heatwaves, storms, and tsunamis. “Early warnings save lives and provide vast economic benefits. Just 24 hours’ notice of an impending hazardous event can cut the ensuing damage by 30 per cent”, declared the former WMO Secretary-General Prof. Petteri Taalas.



*Figure 1: Early Warnings for All Initiative*

To ensure the safety of countries and their populations, WMO is developing other programs such as the WMO Space Programme<sup>2</sup> which aims to achieve maximum benefits from Earth observation satellites for all WMO application areas. We can also take the example of the World Climate Research Programme (WCRP) which “coordinates and guides international climate research to develop, share and apply the climate knowledge that contributes to societal well-being”<sup>3</sup>. Translators working in this organization must therefore have knowledge of these programs and therefore in different areas such as climate change, oceanography, hydrology or even space.

During my internship within the World Meteorological Organization, my main job was the translation and post-edition of various documents related to meteorology for different important events such as the seventy-sixth Executive Council as well as the nineteenth World

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<sup>1</sup> <https://public.wmo.int/en>

<sup>2</sup> <https://public.wmo.int/en/programmes/wmo-space-programme>

<sup>3</sup> <https://public.wmo.int/en/programmes/world-climate-research-programme>



Meteorological Congress organized by the Organization every four years. Working in organizations depending on the UN system, allows translators to be able to observe world affairs and international diplomacy and to be at the forefront of the decisions adopted and information transmitted. Translation plays a central role in ensuring that meetings and conferences run smoothly in all the UN's official languages. The translator's main role is to report on activities and disseminate information clearly. Within the UN system, and within WMO, the translator must use standardized terminology and consequently contributes to the enrichment and updating of the UN multilingual database: UNTERM. Translation represents a step in the documentation process between editing and editorial and desktop publishing and is a very demanding job. Indeed, the translator must ensure the accuracy and completeness of the translation in conveying both the meaning and the tone of the original document. Moreover, the translator must ensure consistency within series of documents by checking the official terminology, the specialized terms or phrasing. He or she also must adhere to the style and the usage rules of the translation service for which he or she works. However, the most important work of the translator is to understand the subject and the nature of the document and be aware of any political nuance. In addition, within the UN system and within WMO, the translator has many responsibilities because he or she is the one responsible for producing documentation such as correspondence, publications, and other documents to support various meetings. Translators may also have to comply with confidentiality rules regarding certain documents that must not be circulated. During my internship within WMO, for example, I post-edited a confidential document concerning the nineteenth Meteorological Congress elections.

To better understand the composition of the United Nations system, here is a diagram showing the main UN bodies and their respective role and contribution:

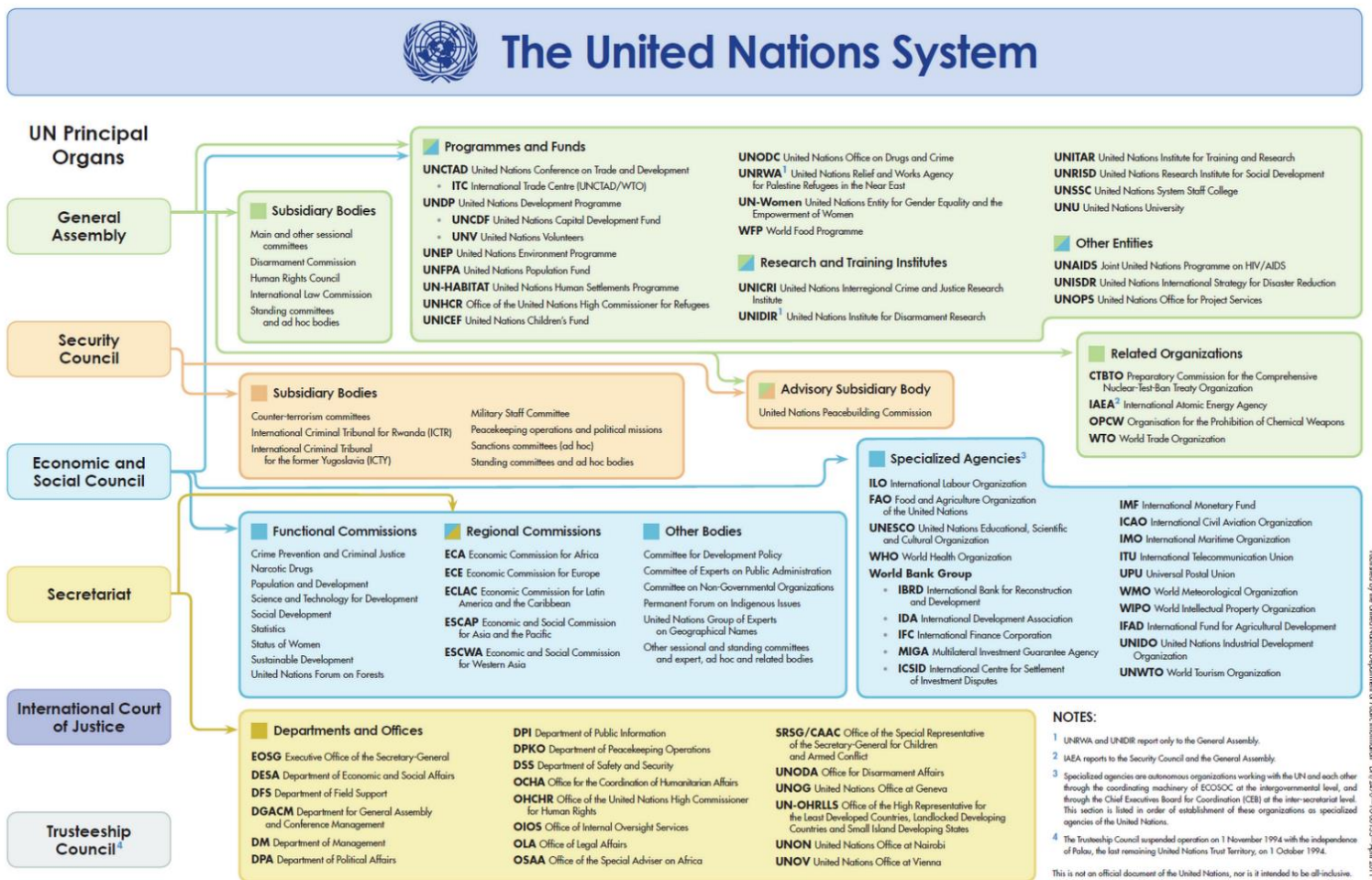


Figure 2: United Nations system diagram

As we can see on this diagram, the UN system is composed of six main organs which are the General Assembly, the Security Council, the Economic and Social Council, the Secretariat, the International Court of Justice, and the Trusteeship Council. Each of them contains other sections such as “Departments and Offices” or “Programmes and Funds”. Within the Economic and Social Council in blue, we can see the section ‘Specialized Agencies’ containing numerous UN agencies such as the International Labour Organization (ILO), the World Health Organization (WHO) and consequently the World Meteorological Organization (WMO).

## B. Constraints related to the United Nations context

Within the United Nations system, and particularly within the World Meteorological Organization, translators have specific functions, sometimes different from those performed by translators working as freelancers or working in translation company. Indeed, their role is first to guarantee the accessibility of documents and therefore of information in the WMO official languages, which are English, French, Spanish, Arabic, Russian, and Chinese. Their role is to provide accurate translation in their working language, without errors or ambiguity. However, translators working for these bodies are confronted with numerous constraints related to standards, terminology or even the use of certain tools. Indeed, within the World Meteorological Organization, the subjects treated are related to meteorology such as oceanography and hydrology, for example, and which requires translators to have a good knowledge of meteorological terms. Indeed, unlike a freelance translator who can translate documents on a wide range of subjects, WMO translators mainly translate related-meteorology documents. It is therefore necessary to have a good knowledge of meteorological terms in the source language, which is English, but also a good knowledge of the equivalence of these terms in the working language which was French for me during my internship.

During my internship within this Organization, I translated a variety of WMO official documents on a board range of subjects from English into French. For example, I translated correspondences from the Secretary-general, I translated a video which summarized the World Meteorological Day I attended on March 23, also celebrating the Organization's 150<sup>th</sup> anniversary. Moreover, I translated session documents for the seventy-sixth Executive Council and the nineteenth World Meteorological Congress as well as a highly technical document on meteorology entitled *April Seasonal Update*. These documents were sometimes complex to translate because they required a specific knowledge of some meteorological terms but also a knowledge of meteorological phenomena. Consequently, working as a translator in a specialized agency of the United Nations often requires specific knowledge in the field in which the agency is specialized. In this regard, to ensure cohesion in the translation of meteorological terms, WMO has a handbook called "International Meteorological Vocabulary", which includes translations of many specific meteorological terms, as well as short definitions. Translators can therefore refer to this handbook to acquire knowledge about a given term and understand the context in which it can be used as well as to ensure a common translation of that term. Once the translators have a good knowledge of these meteorological terms and weather events, they can translate documents

such as individual letters, reports, resolutions, and other. For example, we can see below the terms “sea breeze” and “sea breeze front” and their corresponding definition in French as well as their definition in both languages. This “International Meteorological Vocabulary” is available to the public in digital format in WMO E-library.<sup>4</sup>

<p><b>S0440</b>    <b>sea breeze</b> lake breeze, onshore wind</p> <p>Wind in coastal regions, blowing by day from a large water surface towards the land as a result of diurnal heating of the land surface.</p>	<p><b>brise de mer</b> brise de lac, vent du large</p> <p>Vent des régions côtières, soufflant le jour à partir de grandes surfaces d'eau vers la terre ferme par suite du réchauffement diurne du sol.</p>
<p><b>S0450</b>    <b>sea breeze front</b></p> <p>Frontal surface forming between a layer of air which has been warmed over land and an underlying relatively cool and shallow layer flowing from an adjacent large water surface when a <i>sea breeze</i> blows.</p>	<p><b>front de brise de mer</b></p> <p>Surface frontale se formant entre une couche d'air réchauffée au-dessus du sol et une couche sous-jacente relativement fraîche et peu profonde provenant d'une grande surface d'eau sous l'effet d'une <i>brise de mer</i>.</p>

*Figure 3: example of the translation and definition of meteorological terms from the 'International Meteorological Vocabulary'*

Moreover, in the documents to be translated, there are many acronyms in the source language, which is English. For example, during my internship I encountered the acronym WIS that means World Information System and that corresponds to *Système d'information de l'OMM* (SIO) in French, or UNFCCC which corresponds in English to United Nations Framework Convention on Climate Change, and which is translated in French as *Convention-cadre des Nations Unies sur les changements climatiques*. All these acronyms are ‘universals’ which means that there is only one possible translation, that must be verified in UNTERM by the translator to ensure that their translation of the acronym corresponds to the official translation given by the UN system. UNTERM is “a multilingual database for official terminology relevant to the work of the United Nations. It is a public website used by UN delegates and staff, as well as other users who are interested in the work and activities of the United Nations around the world.”<sup>5</sup> In the UNTERM portal, we can see that the role of UNTERM is to provide “official terminology in the six official languages of the United Nations – Arabic, Chinese, English, French, Russian and Spanish – in

<sup>4</sup> [https://library.wmo.int/doc\\_num.php?explnum\\_id=4712](https://library.wmo.int/doc_num.php?explnum_id=4712)

<sup>5</sup> <https://unterm.un.org/unterm2/en>

line with the General Assembly mandate on multilingualism. UNTERM contains terminology entries from entities across the UN system. To ensure consistency across the UN system, the database is managed by UN language staff specialized in each subject.” This database helped me a lot during my internship because it allowed me to discover the meaning of some acronyms. For the French language, the database was extensive and included many acronyms. However, for some colleagues using Russian or Chinese, for example, the database is not yet complete and does not have all the acronyms available.

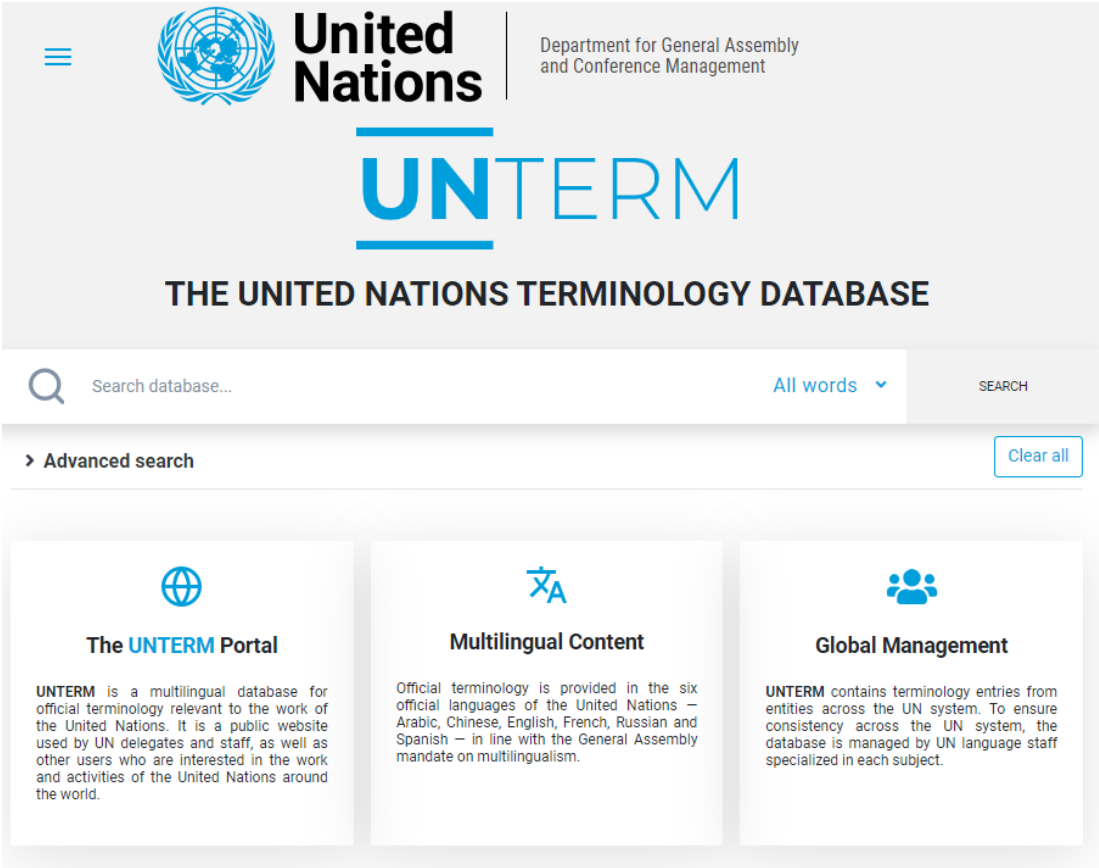


Figure 4: UNTERM portal home page

Within WMO, translators are confronted with another constraint when it comes to the size of the documents to be translated. Indeed, before translating a document, it is therefore necessary to know its size and the deadline by which the translation must be completed to guarantee a good organization with the whole team. Indeed, sometimes they can be session documents, reports from the Executive council totalling 14,000 words for examples. On the contrary, they can also be short documents such as circular letters, individual letters totalling 600 words for example. It is

therefore important for the translator to find out in advance about the nature and size of the document to be translated to ensure a good organization in the work to be done. Moreover, the United Nations Organization depends on every event which takes place in the world. Consequently, some international crises can lead to a flood of urgent texts to be translated. The subject of the texts is also unpredictable since everything depends on these events. Translators can therefore be confronted to translate urgent documents on a wide variety of subjects.

Moreover, at the beginning of my internship, I was given a French “*Manuel d’édition*” which contains all the WMO standards that should be applied when translating a document. For example, within WMO, it was decided by members of the linguistic department that the expression ‘Regional Association’ is no longer translated as ‘*Association régionale*’ in French but as ‘*Conseil régional*’. We can also mention the term ‘*Règlement général*’ that must be written in italics if it refers to the publication but must be written in straight type in other cases when it refers to a set of rules. Moreover, when a city name is followed by the country name, the latter must be enclosed in brackets. These common rules, that have been discussed and agreed by the linguistic team, enable translators to be coherent with their translation and those of their colleagues. The aim is to provide a common translation in the six WMO official languages, using the same translation of some terms or acronyms. Below are examples of some of the clarifications or common rules we can find in the “*Manuel d’édition*”, which allows member from the linguistic department, and especially translators, to use the same translation for some terms and consequently be coherent with each other, without misinterpretation or mistranslation.



### **Conseil régional/association régionale**

Depuis le Quatorzième Congrès (mai 2003), l'expression «Regional Association» se traduit en français par «conseil régional».

On utilise l'expression «association régionale ou AR» uniquement lorsqu'un passage d'un ancien rapport (pré-2003) est cité ou bien dans la cote d'une résolution adoptée avant 2003 ou dans le titre d'un ancien rapport. Il arrive parfois, si l'on fait référence à une ancienne session où il était encore question d'associations régionales, que l'on écrive «le Conseil régional (anciennement Association régionale)».

**À noter:** Lorsque dans un même texte il est question d'un conseil régional et du Conseil exécutif, il convient d'utiliser le titre complet dans chaque cas pour éviter toute confusion.

### **Coupages de mots**

#### **Règles générales**

Deux coupures de mots possibles:

- La coupure syllabique

Exemple: ca-tas | tro-phe

- La coupure étymologique

Exemple: Hé-mi | sphè-re

On ne coupe pas un mot:

- Avant ou après un «x» ou un «y» placé entre deux voyelles

Exemple: dixième, mais pay-sans

- Avant ou après une apostrophe

Exemple: au-jour-d'hui

On ne coupe jamais un sigle.

*Figure 5: example of clarifications found in the 'Manuel d'édition'*

In addition to strict rules concerning the translation of acronyms and the use of certain terms, there are also rules concerning the layout of documents. Indeed, the header of each WMO official document must be the same which means that it must contain the WMO logo, the address, the title of the document as well as the date on which it was written and the place. In addition, for session documents and correspondences, a common layout must be respected by all translators of the different official languages, so that the translated document corresponds fully to the source document. For example, in WMO e-library we can find the “WMO corporate visual identity guidelines” which “aimed at strengthening the Organization’s identity through branding”<sup>6</sup>.

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<sup>6</sup> [https://library.wmo.int/index.php?lvl=more\\_results&autolevel1=1](https://library.wmo.int/index.php?lvl=more_results&autolevel1=1)

We can find, for example, the layout of the WMO logo with exact reference to the colour which is ‘Pantone 293. CMYK equivalent: 100% cyan / 70% magenta’, as well as the WMO logotype with language variations:



WMO logo with full name, in vertical format



The exact colours for the WMO logo are as follows:

**WMO blue:**  
Pantone 293. CMYK equivalent: 100% cyan / 70% magenta.

*Figure 6: example from the “Corporate Visual Identity Guidelines”*

**WMO logo with the full name in the six official WMO languages, in horizontal format, available also in vertical format**

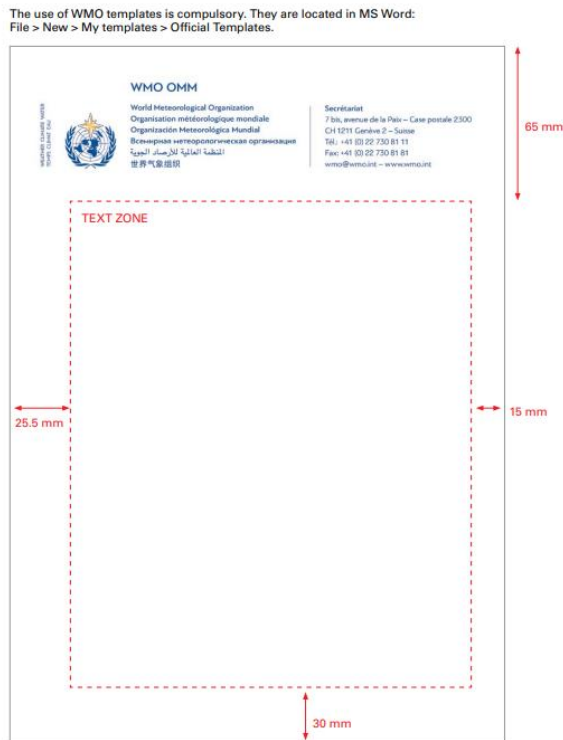


*Figure 7: WMO logo in the six official WMO languages from the Corporate Visual Identity Guidelines*



We can also find any other information regarding the layout, such as the letterhead:

### Bilingual A4 letterhead (210 x 297 mm)



*Figure 8: WMO official letterhead*

Consequently, the translator part of the United Nations, and part of WMO, is confronted to a wide range of constraints related to terminology, layout, acronyms, etc. The translator has consequently less freedom than a literary translator, for example, as numerous rules must be respected to ensure a coherent and unambiguous translation. The aim is to convey information efficiently and clearly. Within the World Meteorological Organization, it therefore exists a large variety of documents and resources which aim to help the translator producing an accurate and coherent translation.

### C. A translator who does more than translate. A shadow profession?

During my internship, I translated a variety of WMO official documents, such as session documents, technical documents, correspondences, videos and other, but the translator's job does not end there. Indeed, during my internship I have done many other things, more or less related to translation. For example, I attended the seventy-sixth session of the Executive Council, which takes place every year, in the Obasi room within the World Meteorological Organization. During those conferences, from February 27 to March 3, decisions and resolutions were discussed and adopted by several members from different countries. Indeed, the Executive Council "coordinates programs, manages the budget, considers and acts on resolutions and recommendations from the regional associations and technical commissions, and studies and makes recommendations on matters affecting international meteorology and related activities"<sup>7</sup>. During this time, I had the opportunity to go into the interpreter's booth to listen to the interpreters translate the conference. There were two interpreters in each booth, taking turns every thirty minutes. I listened the interpreters of each language for which the meeting was translated which were French, Spanish, Russian, Chinese, and Arabic. It was also possible for each WMO staff member to listen the meeting from their office through a zoom link and have access to the translation of interpreters for the desired language.

During the three days meeting, I oversaw the distribution of the badges to all the participants which allowed me to meet people from different part of the world and learn more about the role they played in the session and within the Organization in general. This session also allowed me to better know the role of the Executive Council, which is to monitor implementation of Congress resolutions, to adopt new resolutions but also to issue recommendations in the field of meteorology or sets the agenda for Congress sessions. Taking part in the seventy-sixth Executive Council also had repercussions on my translations because it allowed me to better know the context and the role played by WMO and therefore facilitate the translation of documents related to this subject. Many weeks before, all the documents needed for this meeting were translated in the six WMO official languages and were then projected in the room during the session, to be discussed by the members. When a decision or resolution were discussed, sometimes some changes occurred, and those changes lead to a change of the document and therefore a change in the translation. In the linguistic department, translators consequently received the document that

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<sup>7</sup> <https://public.wmo.int/en/events/constituent-bodies/executive-council-seventy-second-session-ec-72-online>

have been already translated, to translate the changes and to send back the document again to the meeting in order it appears with the final update to the order. It was a rush because sometimes translators had only a few hours to translate the modifications, but the objective was to quickly update the documents in the six WMO official languages.

The nineteenth World Meteorological Congress, which took place in the International Conference Centre Geneva (CICG) (annex 2) from May 22 to June 2, was held in the same way. Indeed, during this time my role was to welcome the MPs from different countries, to deliver them their badges and to answer their questions if necessary. It was very rewarding to work in this international environment and it allowed me to meet many people, especially MPs and know more about their role in the Organization. The World Meteorological Congress is the supreme body of World Meteorological Organization. This year, it approved the Strategic Plan 2024-2027 to promote WMO's vision that "by 2030, we see a world where all nations, especially the most vulnerable, are more resilient to the socioeconomic consequences of extreme weather, climate, water and other environmental events"<sup>8</sup>.

During the Executive Council, I talked with a Spanish interpreter who mentioned that for an interpreter, and for a translator in general, it is important to keep up with the news to acquire all the necessary specialized information if we were to translate a document on this subject. Within WMO, for example, training sessions on a wide range of subjects, like oceanography or atmospheric dust, are organized in Spanish, allowing interpreters, translators and other members who are not specialists regarding these subjects, to know more about some meteorological phenomena. During my internship, I participated to a training on physical oceanography (*Introducción a la oceanografía física: conceptos para entender el funcionamiento de los océanos*), given by Dr Belén Martín Míguez, Scientific Officer, and another one on atmospheric dust (*Curso de formación sobre las tormentas del polvo y arena y sus impactos*), delivered by Dr Sara Basart, WMO Scientific Officer at the Global Atmosphere Watch (GAW) programme and responsible for the WMO Sand and Dust Storm Warning Advisory and Assessment System. These two trainings were very interesting as it allowed me to learn more about some specific topics such as oceanography or atmospheric dust. It enabled me to acquire new specialized knowledge on rather complex subject, that was useful for some translation.

In addition to attending conferences or training sessions, I performed other tasks more related to translation such as the alignment of a wide range of documents thanks to WMO internal

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<sup>8</sup> <https://public.wmo.int/en/about-us/governance/cg-19>

materials. The aim was to ensure that English segments corresponded to French segments, especially to support the functionality of eLUNa, the UN computer-assisted translation tool used within WMO. The aim is then to use the data collected in eLUNa to provide more concrete results. Texts are broken down into sentence chunks based on strong punctuation marks such as periods. In this way, the software's translation memory is enriched each time a translation is performed and aligned. Alignment allows then the translator to save time, as the aligned sentence chunks are automatically proposed to the translator, who only needs to validate them. This alignment work is a great help for translators since when they translate a new sentence, if it has already been translated or if the machine recognizes some words that have been aligned, the result will be directly proposed to the translator who will only have to verify and validate it. Consequently, the translator does not need to entirely translate the sentence again, allowing him or her to save time.

I also post-edited in French all machine-translated information documents for the seventy-sixth Executive Council and for the nineteenth World Meteorological Congress. With new translation tools, post-editing has become an indispensable task for the translator. For my part, it was a question of correcting any mistranslations and other irregularities to make sure that the output produced automatically by the machine was comprehensible and accurate. The translator then needs to do some research and acquire knowledge about the document to be translated. Within the UN system, and within the World Meteorological Organization, as strict rules and standards must be respected, it is important for the translator carefully read the document that has been translated by the machine. Indeed, as we have seen above, many resources are available to the translator, such as UNTERM or the “*Manuel d'édition*” for example, to respect the common terminology of the United Nations since this common terminology and rules are not known by the machine, they are only known by the human translator. The translator is therefore required to check each term or acronym for which he or she has doubts about its translation to always ensure a common translation of certain terms, words, or acronyms in the six official WMO languages.

Translation and post-editing allow the translator to acquire new knowledge thanks to the research he or she has carried out, and to improve spelling. Doing different kinds of research also makes the translator question the meaning of different words. For example, during my internship, I wondered about the difference between “biannual” and “biennial”, or between “*climatique*” and “*climatologique*”. These questions help to enrich our vocabulary and acquire new knowledge. Today, post-editing almost takes over the translation since machines can provide better and better results. However, the presence of the human translator remains essential to ensure that no mistakes that could have serious repercussions have been made. We can consequently notice that the

translator profession is not only about translating but it is also about being curious and interested in other things. The translator may perform other tasks that are more or less related to translation, such as alignment, post-editing or participation in various events. Each of these activities allow him or her to acquire new skills and knowledge and thus enrich his or her translation work while saving time.

However, the translator's profession can be considered as a shadow profession. In fact, the translator provides a considerable amount of work, which is the case within the UN system and within WMO for example, but very often, the translator never shows up: in the case of WMO, translators receive various documents from other departments, translate them into their working language and then send them back to the sender to be used for various purposes. For example, for the seventy-sixth session of the Executive Council I attended during my internship, many documents have been translated by translators in the six WMO official languages. First, it is an upstream work: the translator must do some research to provide the most accurate translation possible of the original English document into its own language. Then, during the Executive Council, many documents including resolutions and decisions are discussed and modified by members. It is therefore also a downstream work as the documents now contained resolutions or decisions that had been changed and therefore had to be re-translated by the translator. During these conference days, translators need to work fast because they often must translate a document that had been modified in the morning for the afternoon or in the evening for the next morning, which represents a lot of work. This considerable work that is done by the translators is often not seen and the translator is never named on the translated document. A good translation is even considered as such when the reader does not notice that it is not the original document but a translation. Consequently, the translator performs a profession in the shadow, even if any error can be fatal, particularly in the United Nations environment where common standards and rules must be respected. A mistranslation of a word or phrase can lead to confusion and can have serious repercussions. For example, in a letter concerning the invitation of some members to a conference or to the seventy-sixth Executive Council, if the translator makes a mistranslation or typing mistake such as indicating March 1 instead of March 3, it can have serious repercussions because the people concerned may come on the wrong date.

## **II. Artificial intelligence at the service of translation within the United Nations system, and particularly within the World Meteorological Organization**

### **A. Computer-assisted Translation (CAT)/Machine Translation (MT)**

Machine translation was born during World War II when the British government wanted to decipher the coded radio communications that Nazi Germany used to send messages. Alan Turing was therefore appointed to carry out this work. The American government was inspired using his technique and wanted to develop it further after the war to understand Russian scientific publications. The first demonstration of a machine translation system translated 250 words from Russian into English in 1954. It was a dictionary that tried to match the source language to the target language with a word-to-word translation. This is how machine translation was born and has continued to evolve. In recent years, artificial intelligence has revolutionized many fields, including the linguistic one. According to the encyclopaedia Britannica, “Artificial intelligence (AI) is the ability of a computer, or a robot controlled by a computer to do tasks that usually done by humans because they require human intelligence and discernment. Although there are no artificial intelligences that can perform the wide variety of tasks an ordinary human can do, some artificial intelligences can match humans in specific tasks”<sup>9</sup>. Artificial intelligence transforms the information into code so that it can be decoded by machines and has enabled the development of new systems in the field of translation. These include machine translation and computer-assisted translation, which use intelligent algorithms to help machines mimic the human brain while limiting errors.

Several translation models are based on artificial intelligence. For example, we can mention the Statistical Machine translation which relies on a system of probabilities and statistics to determine the most likely translation of a given sentence. To achieve this result, this model uses two corpora: a bilingual corpus and a monolingual corpus, which it automatically compares to extract the most probable terms. We can mention another model, that is rather recent, which is the Neural Machine Translation (NMT), which is also based on artificial intelligence. It was created in 2014 and is increasingly used nowadays. The aim of this model is to reproduce the functioning of a human brain. Compared to Statistical Machine Translation, Neural Machine Translation

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<sup>9</sup> <https://www.britannica.com/search?query=artificial+intelligence>

considers the meaning of words and sentences to derive a meaningful translation. The results obtained by Neural Machine Translation are impressive since they result in a very good quality translation and therefore require little intervention from the human translator. Some technology giants such as Google, Microsoft and Facebook are using this system of neural translation. For example, Google has launched "Google Neural Machine Translation" which has reduced errors by 85% compared to "google translation". Indeed, Google translation is not very reliable because it is based on big data, which means that it automatically translates the sentences that are most often found in its database without developing a global approach to the sentence, thus creating many misunderstandings. This aspect is very well summarized by Dzmitry Bahdanau and KyungHyun Cho Yoshua Bengio in their study "Neural Machine Translation by jointly learning to align and translate"<sup>10</sup>: "*Unlike the traditional phrase-based translation system which consists of many small sub-components that are tuned separately, neural machine translation attempts to build and train a single, large neural network that reads a sentence and outputs a correct translation*". There are three types of translation that are based on artificial intelligence: purely automated translation, augmented (hybrid) translation and transcreation. Consequently, there are cases where artificial intelligence can replace translators, cases where it can facilitate the work of translators and cases where translators do a better job than artificial intelligence.

Sometimes we tend to confuse machine translation (MT) and computer-assisted translation (CAT), which are both translation aids but do not have the same function. If we talk about Machine Translation (MT), we are talking about an operation performed directly by the computer, without human intervention which can be considered as an autonomous technology and in this case translate any kind of text and message. This type of translation is used in WMO especially for large documents to provide a support during some sessions such as the seventy-sixth Executive Council or the nineteenth Meteorological Congress. During this internship, I post-edited in French various information documents for these two events. On the other hand, if we talk about Computer-assisted Translation (CAT), then we are using artificial intelligence as an aid for the human translator, allowing him or her to save time and increase productivity but which requires the presence of a human translator. Computer-assisted translation has been used for the past twenty years to record segments of text translated by human translators to reuse them if the context allows. This tool improves the productivity of professionals and therefore saves time, but the human presence remains necessary to verify the translated phrases proposed and accept them or

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<sup>10</sup> <https://arxiv.org/pdf/1409.0473.pdf>

not. Translators who are part of the UN system, and consequently from WMO, use a computer-assisted translation software called eLUNa. It is consequently a computer-assisted translation software specially developed by the United Nations for the translation of its documents, and which I used during my internship to translate a wide range of documents. It integrates previously translated documents stored in bitext translation memories, terminology entries from the UNTERM database and machine translation systems. Via the Unite Conferences portal, we have access to eLUNa but also to a bitext alignment tool that allows us to match segments of a source language text to segments of an already translated target language text. All of this allows for consistency and accuracy of translations within all United Nations organizations.

Translator can therefore base their translation work on artificial intelligence depending on their area of specialization. In the translation field, artificial intelligence is particularly well suited to documents with many words because it allows to save a huge amount of time by only completing a post-editing work. It is also well suited to documents in which many words are repeated because the machine has already recorded many similar words and phrases, which will be suggested again to the translator, and which will allow him to save time. However, in some area of speciality, such as literary translation, artificial intelligence, and therefore the machine, can be a help for the translator but human contribution remains essential. Indeed, the author's style, innuendos, humour or even emotions cannot be transcribed by the machine. Nowadays, other types of translation use artificial intelligence. For example, there is the automatic voice translation, which is available on most high-tech equipment. This is a very practical technology that provides real-time results through speech recognition and synthesis. The adaptive machine translation, which commonly referred to as adaptive machine translation, is a self-learning translation engine. It is often used for large-scale translation projects.

However, oral translation also known some changes with the arrival of artificial intelligence since artificial intelligence prototypes now exist. Consequently, Skype, Waverly Labs developed some technics as well as Pilot that developed an artificial intelligence for headphones allowing simultaneous translation. However, these prototypes need further development before they can be reliably used. Indeed, within the UN system and within the World Meteorological Organization are facing many difficulties because oral translation requires precision and a very thorough comprehension of the speech. Moreover, it is very difficult to recognize a word and therefore to transcribe it into a text to be able to translate it afterwards: artificial intelligence can be blocked



by the spontaneity of the language. It can also be blocked by the speaker's accent. Indeed, during my internship within WMO, I listened people from different nationalities talking in English during the seventy-sixth Executive Council or during the nineteenth World Meteorological Congress, and I noticed that the accent was very different depending on whether the person was French, Chinese, or Indian for example. Consequently, artificial intelligence can face some difficulties during the comprehension and the translation process which can lead to an incorrect transmission of the message. Indeed, when someone is speaking, the human interpreter must always be attentive to intonations, punctuation, hesitations in a dialogue, which can distort the proposed result by artificial intelligence. Consequently, even if artificial intelligence is also making progress in the oral translation field, human expertise remains essential since it is important to have a perfect knowledge of the translated subject and since it is not very possible to know in advance what the person will say.

## B. Advantages and limitations of artificial intelligence in the translation process

Artificial intelligence can bring many advantages to the translation field and can represent a great help for translators. Indeed, the various systems based on artificial intelligence are becoming more and more efficient and therefore allow for an increasingly consistent and accurate translation. In addition, artificial intelligence now enables software to process and translate documents in different languages and from different contexts. Software can be used to translate or to help to translate different types of documents and they are increasingly reliable in terms of results.

An undeniable fact about artificial intelligence at the service of translation is that human translators save a considerable amount of time in their translation work. Indeed, they produce more and faster, which contributes to increase their amount of work, which allows them to save time and money, especially for freelance translators who are paid for each word translated. Indeed, since the machine enables the translator to translate faster, the translator has more time to carry out a greater number of translations, which in turn saves money. Moreover, another fact regarding the advantages of artificial intelligence is that the translator may also show failures due to his level of fatigue, his psychological state, or his current emotions. He or she may therefore make mistakes, misinterpretation, or mistranslation, whereas the machine never stops and is always as productive. The machine can work at any time of the day or night, and almost never malfunctions.

The machine becomes even more efficient as it learns continuously. Indeed, the more translations a translator performs with the software, the more the machine learns new words and phrases that are added to the translation memory. As a result, the machine has an infinite memory compared to humans, and is therefore able to produce increasingly high-quality results. Consequently, artificial intelligence allows translators to translate a large volume of texts in a short time and to produce increasingly accurate translations as the machine is now able to self-corrects.

The new machine translation and computer-assisted translation software seem to be promising, but there are still some limitations to the development of these software. First, we can note that there is a different enrichment depending on the language pair chosen. Indeed, when it comes to rare languages, the software has less resources and the translation is therefore of lower quality. During my internship within the World Meteorological Organization, machine translation documents were rather well translated, I just needed to correct few mistakes whereas for Russian or Arabic, for example, the result was not as good, and the other interns needed to correct a lot of mistranslations. The dialects are also not very well translated by the machine since few data are available to translate them. Consequently, the intervention of a native human translator of the dialect remains essential. Moreover, since it is a machine that translates a text, the latter has no emotion and does not always adapt to the context or to the readership. As a result, some misinterpretations or counter-meanings can be committed, especially for certain types of documents such as literary documents which require specific skills to translate the emotion or the context. The translator is then required to proofread the text to ensure that the target text corresponds to the source text. Even though time is saved in the translation process, the human translator still performs a time-consuming revision process.

In addition, the machine is not yet capable of translating everything. Indeed, it encounters difficulties when it must transcribe the emotion of a text, the style of the author or the irony of the text. The translation software can translate the common language in a qualitative way because the software has many resources and a large comparative database. However, when it comes to a special language, for example, the software has fewer resources, and the quality of the translation is therefore lower. This is the case, for example, for the translation of SMS or puns. We can also take some examples of French expressions which have one possible translation and consequently which cannot be translated by the machine. For example, in French we use the expression “*L’habit ne fait pas le moine*” which is translated in English as “You can’t judge a book by its cover”. However, if we use DeepL to translate this expression, for example, it is proposed “Clothes don’t make the man”, and the expression loses its meaning. The translator must also adapt to the culture

of the country for which the document is being translated, something that the machine is not yet capable of doing. Moreover, if we only use machine translation, the result can be monotonous and boring to read. It is therefore important to make original choices by adding some synonyms or expressions, for example, to make the final text more pleasant to read.

One of the limitations of using translation software is also the translation of long texts. Indeed, we can notice that the shorter the text is, the better the translation will be. On the other hand, for long texts, we notice a lack of coherence with many misunderstandings or badly translated expressions. For example, during my internship within WMO, I post-edited in French large-size machine-translated documents. Sometimes they contained more than 50 pages and it was therefore obvious to notice some incoherences in the texts. Consequently, the translator can find an aid from computer-assisted translation and machine translation tools, but it cannot really be replaced because the human presence is always needed, at least to ensure the accurate translation. As seen above, artificial intelligence is consequently a technology that has greatly contributed to the development of the translation field, and which contains many advantages. However, it still needs to perform well to meet the strict requirements of machine translation and consequently contains limitations. Most translators are using artificial intelligence to translate various documents and many engineers are still working on the subject to further improve its use in the coming years and thus achieve better results.

The United Nations Organization Secretary-general, António Guterres, emphasized on July 18, via UN News, the potential of artificial intelligence to accelerate human development while also cautioning against the malicious use of what is revolutionary new technology. Consequently, as mentioned on the UN News website<sup>11</sup>, Guterres said that “if artificial intelligence became primarily a weapon to launch cyberattacks, generate deepfakes, or for spreading disinformation and hate speech, it would have serious consequences for global peace and security”. As Guterres said, artificial intelligence consequently represents a great development for human in many areas and is increasingly used within the United Nations system but can also represent a threat especially within the United Nations where the consequences could be severe.

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<sup>11</sup> <https://news.un.org/en/story/2023/07/1138827>



*Figure 9: the UN Secretary-general, António Guterres, addressing the UN Council on the threat of artificial intelligence to international peace and security*

### C. A profession that requires open-mindedness, curiosity and human collaboration

During my internship within the World Meteorological Organization, I noticed that, even though translating is an independent profession, communication, curiosity, and open-mindedness are still essential qualities to deliver an accurate work. Indeed, to become a translator, it is important to be interested in the outside world, in other cultures, and to keep up to date with news. For my part, I decided to download the UN News application to keep abreast of all the latest events in the world and within the United Nations, as well as decisions taken by the Secretary-General and other UN agencies. Indeed, reading the news is a great way of acquiring new knowledge and enriching our general culture on many subjects that we might be called upon to translate. Thanks to the UN News application, it is possible to have access to the latest news regarding all the subjects related to the United Nations. For my part, it also allowed me to enrich my vocabulary by learning news specific words and sentence structures that I reused in various translation works. The UN also has its own Journal, the Journal of the United Nations<sup>12</sup>, which

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<sup>12</sup> <https://journal.un.org/en/new-york/all/2023-07-26>

aims to provide recent and detailed information on today's and upcoming meetings at New-York headquarters and to watch them live.

The translator must therefore constantly keep up to date with the news and what's going on in the world, but the United Nations also plays an important role in this transmission of information. In fact, the UN has a duty to inform and raise awareness not only among its members, but also among all the planet's inhabitants. In this regard, the UN Department of Global Communications<sup>13</sup> offers a wide range of multimedia content across multiple platforms such as television, press releases, videos, UN website as well as social networks to promote better knowledge and understanding of the work of the United Nations throughout the world. People from different countries can therefore have access to reliable and detailed information about decisions taken within the United Nations and events or crisis around the world. The Department proposes to have access to this news in more than 80 languages which perfectly embodies the multilingualism principle promoted by the United Nations. For example, we can see below an example of WMO publication<sup>14</sup> that appeared on the Instagram social network on July 26. This publication aims to raise awareness and inform people around the world about wildfires that have devastated several countries and forced the evacuation of thousands of people.

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<sup>13</sup> [Department of Global Communications | United Nations](#)

<sup>14</sup> [https://www.instagram.com/p/CvJ0hLhI4Wa/?utm\\_source=ig\\_web\\_copy\\_link&igshid=MzRIODBiNWFlZA==](https://www.instagram.com/p/CvJ0hLhI4Wa/?utm_source=ig_web_copy_link&igshid=MzRIODBiNWFlZA==)



*Figure 10: WMO Instagram publication on wildfires consequences in July 2023*

Moreover, during my internship within the World Meteorological Organization, I noticed the importance of communication, particularly between translators, proof-readers, publishing assistants, terminologists or even with interpreters. Within WMO, translators may also collaborate with scientists, specialists or with people from other departments, asking them questions about certain meteorological phenomena, for example, or requesting some clarification. Indeed, even if translators working for WMO, for example, have a good knowledge in the meteorological field, they remain linguists and not meteorologists or scientists. Consequently, they often ask some clarification about specific words, expressions or phenomena to scientists or specialists. In this regard, we can notice that teamwork is crucial, even if the translation profession is an independent profession. During my internship, there were several convivial moments with colleagues, enabling us to discuss a wide range of subjects (annex 3). Indeed, the people working within WMO are of different nationalities, which enables us to discuss our respective cultures, as well as the translation of certain words or expressions that differ from one country to another. These discussions were very enriching and provided a window on the world, which is also necessary when we work in the translation field. Every Wednesday we also had a meeting with the whole

linguistic department team via Teams. This enabled us to discuss our doubts with the chief and other members of the team, ask questions, and talk about the future tasks. Consequently, we tend to think that the translator's profession is an independent profession but to provide a good translation, it is important to know perfectly what the document is about and consequently ask questions, talk with others, communicate to be sure to translate as accurately as possible, without misunderstanding that can lead to mistranslation and which can have serious repercussions for the translator.

During my internship within WMO, I also had the opportunity to attend two important sessions. First, the seventy-sixth Executive Council, which took place in the WMO building from February 27 to March 3. The second one is the nineteenth World Meteorological Congress organized by the Organization, which took place from May 22 to June 2 at the International Conference Centre of Geneva (CICG). It assembled all 193 Member States and Territories of the WMO. During these two events, I assisted WMO Conference Services at the registration desk with the preparation, printing, and distribution of accreditation badges to participants. I also helped the staff from conference Services serving as Conference Operations attendant and I attended the various conferences to answer any questions members might have. During the World Meteorological Congress, every day a reception was held in the evening, enabling all members to get together and discuss various topics. Indeed, as mentioned above, communication is very important, and during these convivial moments I was able to talk with members from different countries such as Burkina Faso, the United Arab Emirates or China. It was a great way to discuss on a wide range of subjects and to learn more about different cultures and nationalities. It also allowed me to have an international perspective and made me more open-minded. The translator's profession therefore requires to be open-minded, interested in other cultures and countries, and being curious. It is important not to be afraid to ask questions, to take an interest in different people even if they are not necessarily related to the translation profession. This contributes to enrich the general knowledge, which is essential to this profession. To take a step backwards regarding artificial intelligence, we can consequently note that human collaboration remains essential in the translation profession. Indeed, even if artificial intelligence is a great help for translators, it cannot replace teamwork, collaboration or discussions that are crucial to provide a quality translation, especially without any misunderstandings. Artificial intelligence will never be able to replace this collaborative effort, especially within the United Nations system and within the World Meteorological Organization, where harmonious communication is essential, without which errors could be fatal.

Consequently, thanks to this internship I noticed the importance of multilingualism. Indeed, to ensure a harmonious communication among people, multilingualism is essential. It is essential particularly within the United Nations as it promotes dialogue, tolerance and understanding and it ensures effective participation of all in these bodies. Within the United Nations, the six official languages are English, French, Spanish, Russian, Arabic, and Chinese, and the use of all the official languages on an equal footing is highly promoted. Other non-official languages are also used in the United Nations system to allow everyone to make themselves understood. Multilingualism contributes to cultural openness and is particularly advantageous for people wanting to participate in globalization. Multilingualism is therefore important both in the office, to be able to discuss with other colleagues from different nationalities and cultures, both during meetings, events or conferences allowing each member to communicate harmoniously and in transparency and which enables them to participate fully in the decision-making process.

Every year, an international forum, called International Annual Meeting on Language Arrangements, Documentation and Publications (IAMLADP) is held to bring managers from over 80-member international organizations employing conference and language service providers, especially translators and interpreters. The aim is to share knowledge and experiences and discuss subjects of common interest regarding languages, documentation, and publications. Many members include the United Nations system but also other institutions such as the European Union institutions, and other international organizations. Once again, international cooperation and collaboration is essential in the language field, especially for the United Nations system and consequently for WMO.



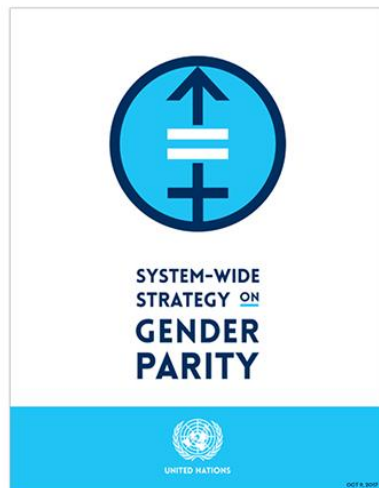
### **III. Evolution of the translator's profession in recent years, especially within the United Nations system and within the World Meteorological Organization**

#### **A. Translator's traditional role within the UN system and within WMO, and evolution of the profession in recent years**

The translator's traditional role within the United Nations system, and within the World Meteorological Organization, is to ensure harmonious communication between member states whose languages and cultures are very diverse. Indeed, the translator allows everyone to have access to a document in its own language and therefore plays a crucial role in the transmission of information thanks to its translation and enable people of different nationalities who speak different languages to understand each other. Moreover, the translator's main role, especially within the UN system and within WMO, is to guarantee the integrity and neutrality of the translation. The translator must not show his or her point of view or emotions and must remain neutral so that the translations are equal in each of the WMO official languages. In addition, within WMO, the translator may be confronted with certain complexities linked to the field of meteorology, the cultural context, or the linguistic level. The translator must ensure that the source text is perfectly transcribed, without adding or deleting information that could have serious repercussions. Consequently, the traditional role of the translator remains the same, despite the many changes the profession has undergone. Indeed, today, within WMO and the UN system in general, translators are working in a totally digital environment. Nowadays, they only use computers to access the many resources and tools that help them translate, even though human collaboration is still essential. It was therefore the case during my internship since nothing is consulted or translated on paper anymore. With the advent of Internet, many resources are now available online which allows the translator to save time and to consult numerous sites, dictionaries, glossaries, and other documents quickly. As we saw in the previous chapter, artificial intelligence is the main change that occurred in the translator's profession. Indeed, with new machine and computer-assisted translation software it is now possible to translate documents with the help of a machine which contains a memory.

In addition to the new resources available, translators have seen many changes in the way they translate and write. Indeed, with the advent of inclusive writing, translators are faced with many

decisions and choices to make. The French translator is especially confronted with this new choice of writing and may or may not decide to translate in inclusive writing, depending on his or her personal choice or the restrictions applied in the workplace. However, not all the world's languages offer the same treatment of gender. English, for example, has few gender markers. When translating from French to English, translators have the choice of whether to use inclusive writing. However, since the French language is highly gendered, the translator may face some difficulties to translate all the text with inclusive writing. The United Nations system aims to promote gender equality and eradicate gender bias. Consequently, the use of inclusive language is strongly encouraged within these bodies. On the UN website, we can therefore find some guidelines including recommendations to help United Nations staff to use gender-inclusive language in any type of communication. They also propose training courses and other resources to help members adapt to these new practices. These resources have been developed by some UN departments and agencies as part of a project entitled “Supporting gender equality in multilingual contexts”. The aim of this project is to create “a working environment that embraces equality, eradicates bias and is inclusive for all staff”<sup>15</sup>, as mentioned on the UN website.



*Figure 11: United Nations poster on the System-wide strategy on gender parity*

Translators are also faced with other linguistic changes, such as the translation of neologisms and anglicisms. Indeed, according to the encyclopaedia Britannica, a neologism is a “new word or expression. The term also refers to the adoption of a new definition for an existing

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<sup>15</sup> <https://www.un.org/en/gender-inclusive-language/>

word or expression. Technological advances are among the main drivers of word creation and adoption<sup>16</sup>. Consequently, translators must always keep abreast of new words used and introduced in their working languages. For example, the Covid-19 pandemic has led to an explosion of new words and phrases. We can take some English examples such as “lockdown”, “self-isolating” and “key workers” which are terms that already existed but that have been increasingly used during the pandemic and that known some changes of their definition in dictionaries. Moreover, some neologisms appeared such as “convexit” in English which refers to the strategy for exiting lockdown, or “antivax” in French which has recently been added to the Larousse dictionary and which is defined as anyone opposed to a vaccine. Translators are also confronted to the choice to use or not some anglicisms. According to the Cambridge Dictionary, an anglicism is “an English word or phrase that is used in another language”<sup>17</sup>. In French, many anglicisms are used such as “weekend” or “parking” for example. However, a translator working for the UN system or WMO can be confronted to restrictions regarding the use of anglicisms. Within the UN system and within the World Meteorological Organization, it is therefore recommended to use as few anglicism as possible. For example, for the English word “feedback” in English, which is commonly used in French in the general language, it is recommended to use the French expression “*retour d’information*”. Indeed, anglicisms can have repercussions on the understanding of the terms. This may lead to an approximate understanding of a word, to a destructuring lexicon, syntax or even to a break in cultural transmission. However, the English language, becoming the language for international communication, has for consequence the use and propagation of many anglicisms in different languages. Within the UN system, it was created in 2011 a glossary which aims to propose suggestions regarding the translation in French of some anglicism. The aim is to avoid anglicisms or loan translation from the French translator since it can have serious repercussions. The non-French-speaking translator can therefore wonder about the consequences of these anglicisms and loan translations.

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<sup>16</sup> <https://www.britannica.com/topic/neologism>

<sup>17</sup> <https://dictionary.cambridge.org/dictionary/english/anglicism>

In her glossary, the author Myriam de Beaulieu proposes the following translation and explications for the term “feedback”:

<b>Feedback</b>	Feedback; retour d'information	L'on traduit littéralement <i>back</i> par « retour » comme dans « retour d'information ». Ainsi « des retours d'expériences des différents acteurs du commerce extérieur » (Lu dans Le Monde, 26 mars 2013 « Création d'un think tank au service des PME ») ressemble à : "There was no feed back about their experience". Ou untel qui a lancé un sondage constate avoir eu beaucoup ou peu de « retours ».	Un anglicisme peut être un mauvais greffon. Par exemple, le « feedback » est bon, ou mauvais, positif ou négatif. Y en a ou y en n'a pas. D'où un usage restreint de la vaste gamme lexicale que sont les adjectifs, par exemple on n'entend peu « feedback mitigé »
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*Figure 12: French translation of the anglicism "feedback" proposed by the author of a UN glossary for anglicisms*

The translation profession has still the same objective which is to ensure the transmission of the information in an accurate way, without errors, misunderstandings, or mistranslations. Nowadays, the translator is therefore confronted to many linguistic changes in his or her profession, especially regarding the way of writing. Consequently, the translator must make choices regarding the translation of some terms or expressions. As we have seen above, languages are confronted to new phenomena such as anglicism, neologism or inclusive language which are increasingly used in different languages. The translator must therefore adapt to the restrictions imposed by her or his work, such as in the UN system or within WMO, but he or she can also make a personal choice to decide to use or not these new linguistic changes.

## B. [New available resources and tools](#)

In recent years, the translator’s profession has undergone many changes, particularly with the arrival of Internet since the translator is now dependent on Internet and its resources. Indeed, previously translators translated on paper and had their translation reviewed by another person. However, with the arrival of computers in the 80s and then of Internet in the 90s, translators can now have access to all the information they need and in a short time. They can consequently save time and increase their productivity. In addition, translators now have unlimited and free access to a wide range of resources. In fact, it is no longer necessary to systematically go to a library to

obtain information: translators can access a wide range of resources directly on Internet. As we saw in the previous chapter, artificial intelligence has also revolutionized the translator's profession, particularly with the help of computer-assisted translation software. The World Meteorological Organization has undergone all these changes over the last few years in the linguistic department, especially with eLUNa, the computer-assisted translation tool of the United Nations, based on artificial intelligence. This tool revolutionized the translation profession, allowing translators to save their translations and increase productivity over time. Thanks to these computer-assisted translation tools, and therefore thanks to artificial intelligence, translators are now able to store “segments” in large databases thanks to a “translation memory”. These segments are similar, composed of one phrase each, the source, and the target language. This tool allows to store these segments which are initially translated by the human translator. They can also be the result of automatic alignment and its translation. Translation memories are constantly enriched as translators produce their translations. This kind of tool, based on artificial intelligence, can be very useful because if a sentence has already been translated, it is automatically proposed to the translator who only has to validate it, which allows him to save time. Today's translators also have access to many resources that were previously unavailable to them. Indeed, many dictionaries and encyclopaedias are now available online, enabling translators to search directly in the resource they need, and once again save time.

Moreover, databases have recently been introduced to facilitate the storage and management of large amounts of data. The encyclopaedia Britannica provides the following definition of database: “any collection of data, or information, that is specially organized for rapid search and retrieval by a computer. Databases are structured to facilitate the storage, retrieval, modification, and deletion of data in conjunction with various data-processing operations”.<sup>18</sup> In the translation field, terminological databases are very important because they bring together a wealth of information that is easy to consult, manage, and update. They are usually multilingual and contain terminological entries and information which enable translators to easily find information on a specialized subject. Terminological databases recently appeared which has contributed to the development of the translator's profession, since they are regularly enriched by the translator, giving him the access to lifelong information. Previously, METEOTERM was the WMO terminological database containing specialized terms in the six WMO official languages. Since 2020, this database is including in UNTERM, the terminological reference system of the United Nations. Terminological databases, such as UNTERM, are constantly evolving since any

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<sup>18</sup> <https://www.britannica.com/technology/database>

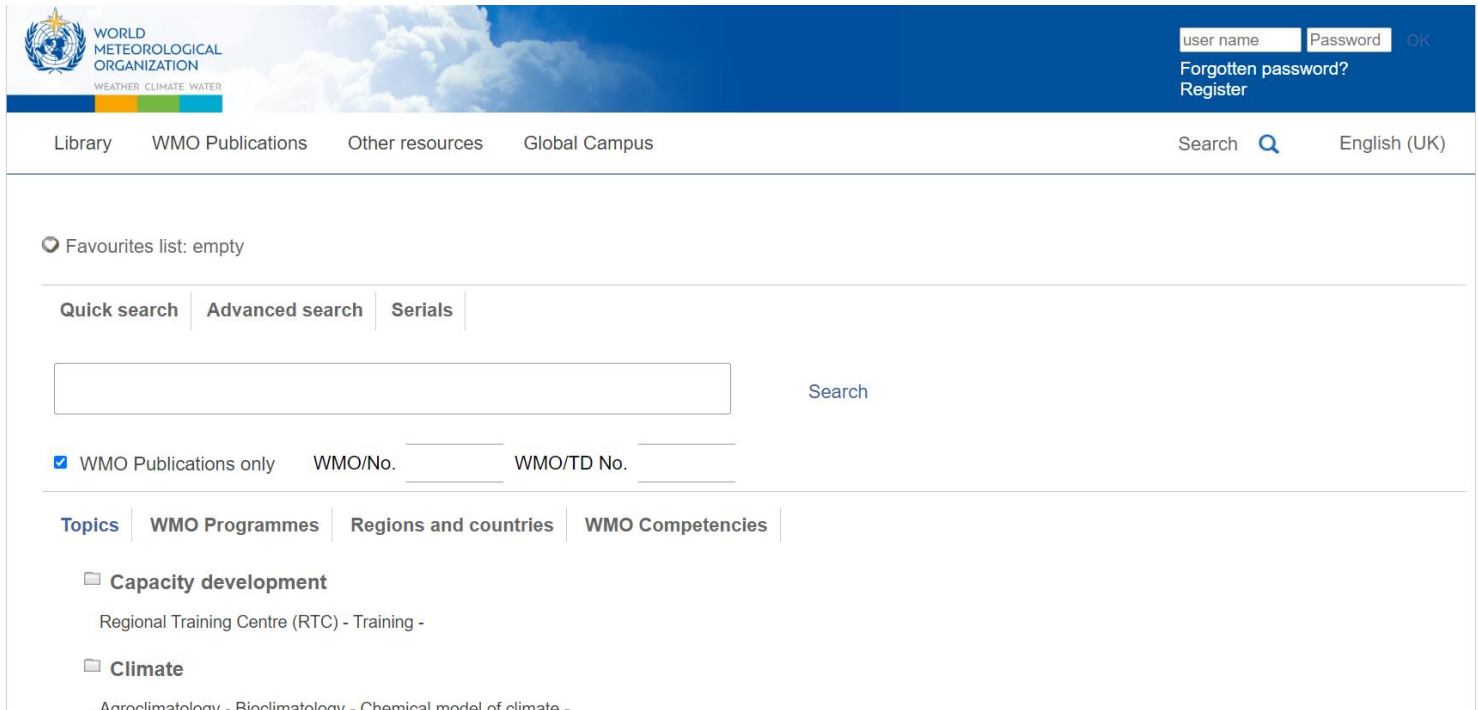
addition or modification is possible to enrich them and obtain ever more satisfactory results. It allows all members of the United Nations, whether in the language field or not, to have access to this online resource. The aim is to provide consistent terminology to minimize ambiguity. For example, certain acronyms or terms are universal for any UN member wishing to use them. In addition, any member can ask the platform's administrators to add a term or information about it. The platform offers translations of acronyms and terms in Arabic, Chinese, Russian, French, Spanish, and English. However, after discussions with other linguists during my internship, we concluded that the terminology database is more complete for languages such as French, Spanish, and English. However, for Russian, Arabic, and Chinese, it is less complete and has less information, not least because it is recent, which makes the work of linguists more complicated, as they must carry out additional and complementary research.

Recently, WMO has its own library available online since 2010, called e-Library. Manuals, reports, dictionaries and other WMO publications are now all available online. Many features within this resource allow WMO members to easily share the results of their research or create e-mail alerts as soon as a new publication appears. There is still a library in the WMO building. However, most paper resources have been digitized, so that all members have access to online documents. Individual linguists now rarely visit the library and use both WMO and non-WMO online resources. Indeed, many dictionaries of various languages are also available online these days. This gives linguists direct access to the information they need, quickly and without wasting time. In the WMO online library we can find a wide variety of documents, especially useful for linguists. These documents are often updated by linguists and translators in the different official languages of the WMO. However, it sometimes happens that a document is only available in a few languages, or only in English. For example, we can access the latest reports regarding the Executive Council sessions or the Meteorological Congress. We can also have access to the “State of Global Water Resources in 2021 (WMO-No.1308)<sup>19</sup>”, or “State of the Global Climate 2022 (WMO-No. 1316)<sup>20</sup>”.

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<sup>19</sup> [https://library.wmo.int/?lvl=notice\\_display&id=22168](https://library.wmo.int/?lvl=notice_display&id=22168)

<sup>20</sup> [https://library.wmo.int/index.php?lvl=notice\\_display&id=22265](https://library.wmo.int/index.php?lvl=notice_display&id=22265)



*Figure 13: WMO e-library homepage*

In the WMO e-library, WMO members can also have access to various documents concerning restrictions on the spelling of certain terms or the layout of WMO official documents. We can take the example of the “WMO Writing and Style Guide” which evolved in the recent years as many new words and expressions appear. This guide “converts issues that WMO authors, scientific editors and linguistic may encounter during the preparation of material for publication”<sup>21</sup>. This guide is based on the United Nations Editorial Manual Online, described as “a compendium of rules and directives on United Nations editorial style, publication policies, procedures and practice”<sup>22</sup>. In the “WMO Writing and Style Guide” we can find some tips on publication, correspondence, or documentation. We can also find some essential elements of style such as abbreviations and acronyms or copyright information and disclaimer. We can also find information regarding country names, as shown below:

<sup>21</sup> [https://library.wmo.int/index.php?lvl=notice\\_display&id=20813](https://library.wmo.int/index.php?lvl=notice_display&id=20813)

<sup>22</sup> [file:///C:/Users/celes/Downloads/United\\_Nations\\_Editorial\\_Manual.pdf](file:///C:/Users/celes/Downloads/United_Nations_Editorial_Manual.pdf)

## Country names

The short forms of country names are used in WMO publications. Please see *Composition of the WMO* (WMO-No. 5). An up-to-date list of WMO Members is given [here](#). The formal name is generally used in legal texts. In historical texts, use the name of the country at the time, or use “the then (country name)”

Please note the following:

- **Bolivarian Republic of Venezuela** (**not** Venezuela); in lists: **Venezuela (Bolivarian Republic of)**
- **Bosnia and Herzegovina** (**not** Bosnia-Herzegovina)
- **Brunei Darussalam** (**not** Brunei)
- **Cabo Verde** (**not** Cape Verde)
- **Côte d’Ivoire** (**not** Ivory Coast)
- **Curaçao and Sint Maarten** (**not** Netherlands Antilles and Aruba)
- **Czechia** (short form for the Czech Republic)
- **Democratic People’s Republic of Korea** (**not** North Korea or DPRK)
- **Democratic Republic of the Congo** (**not** Congo or DRC (when Kinshasa) **but** Congo (when Brazzaville))
- **Eswatini** (**not** Swaziland)
- **Falkland Islands (Malvinas)** (**not** just Falkland Islands)
- **Federated States of Micronesia** (**not** Micronesia); in lists: **Micronesia (Federated States of)**
- **Gambia** (short form for the Islamic Republic of the Gambia) (**not** The Gambia)
- **Hong Kong, China** (but in references before 1 July 1997: Hong Kong)
- **Islamic Republic of Iran** (**not** Iran); in lists: **Iran (Islamic Republic of)**
- **Lao People’s Democratic Republic** (**not** Laos or Lao PDR)

*Figure 14: country names in the WMO Writing and Style Guide*

Consequently, most of the UN and WMO documents are now available online which allowed members to have access to a wide range of resources quickly. Translators do not waste time searching through various manuals or documents. They have direct access to the resource that are interesting for, which is common for all members. We can also mention some desktop publishing software which appeared a few years ago within the linguistic field. Within the UN system and within WMO, editorial and publishing assistants proofread and finalize edited and translated texts in the six official languages. Their task is to ensure that all elements of the text respect the standards guidelines. To achieve these tasks, many online tools are available which automate the aspects of the layout and format of official documents such as styles, margins, tables or even headers. The United Nations use the “United Nations Global Macros tool which allowed to ensure uniformity of document layout and formatting across the six official languages of the United Nations. The tool consists of hundreds of individual macros that support repeat processes



and standardize the appearance of all document components”<sup>23</sup>. One of the tools used by WMO editors is Typefi, which is an automated publishing software for print, web and mobile, “enabling people to publish their content faster and in more formats – without compromising on design or content integrity”<sup>24</sup>. During my internship, I participated to an introduction on Typefi to know more about this tool and to acquire new skills for future work. Since many documents are now in digital format, page layout tools have become very useful for creating clean and common layouts that respect standards of the Organization.

### C. What is the future for translation and how to train future translators?

As we have seen above, Internet and artificial intelligence completely changed the translator profession, sometimes in a positive way and sometimes in a negative way. However, a question emerges with the arrival of Internet and artificial intelligence in the translation field. Indeed, the new question we ask ourselves is: what is the future of translation?

Machine translation and computer-assisted translation revolutionized the translation field as translator are now able to quickly translate many documents. However, it is said that artificial intelligence will completely replace the human translator while other people say that the human translator will remain forever essential. We can agree on a hybrid solution according to which artificial intelligence combined with human skills give an almost perfect result. Indeed, if translators base their translation on artificial intelligence using machine translation or computer-assisted translation tools, doing research at the same time, and using their knowledge and skills, they can consequently complete an accurate and qualitative work. We can therefore see artificial intelligence as an evolution which helps the human translator to complete different tasks in the linguistic field. It therefore represents more an opportunity for translators than a threat since it helps them to improve their work thanks to the new resources and tools available. In addition, we can notice that even if machine translation and computer-assisted translation software improve over the years, the result is not as good as that of a human translator. Indeed, as we have seen above, artificial intelligence contains limitations since the machine is not able to produce a qualitative work in every context. When it refers to translations related to a specific subject

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<sup>23</sup> <https://www.un.org/dgacm/en/content/editorial-desktop-publishing>

<sup>24</sup> <https://www.typefi.com/about/>

requiring a specific knowledge or when it refers to rare languages or literary texts that require to transcribe emotions, style or cultural codes and customs, the machine is therefore less performant and human presence remains essential. Indeed, human presence is always essential to ensure the accuracy of translation. The machine can also make mistakes, it is therefore important for the translator to correct any mistranslation, misunderstanding and other mistakes that can have serious repercussions since it can have prejudicial consequences for the translator or even lead to litigation. We can therefore conclude saying that artificial intelligence cannot replace completely the human translator but can transform it. Thanks to new available tools and resources, translators are now able to have access to online information which allow them to save time and sometimes money.

Within the United Nations system, and particularly within WMO, saying that artificial intelligence is a great help for the translator but cannot replace him or her is even more true. Indeed, in the UN system and within the World Meteorological Organization, there are many standards and rules to be respected. Translators must respect some common rules and standards such as using a common terminology or respecting a common layout. Indeed, even if the translation tool correctly translates a term or a phrase for example, it is possible that the translation proposed does not respect the restrictions imposed by the Organization. It was the case several time during my internship with “Regional association”, for example, for which the machine proposed me “*association régionale*” in French, which is the right translation in the common language, but which is false in the Organization that wants translators respect the standard defined in the *Manuel d’édition* according to which the expression has for translation “Conseil regional”. Moreover, since every translator has its own way of translating and since consequently every translation is different, it is important for some international organizations such as WMO to establish standards and rules to propose a common translation for a specific term. Consequently, the translation of this determined term should be discussed among the team of translators to formulate a common translation. Consequently, in the UN context, human intervention remains necessary to ensure that the common terminology and standards have been respected, but also to ensure that translations are accurate and free from potentially errors which could be fatal and have serious consequences. Within the United Nations system, and therefore within the WMO, the translator's job has a bright future, as there are many common rules to be respected, and these rules are not yet known by the machine.

The translator’s profession knew many changes in recent years. A new question now arises: how to train future translators? Universities, schools, Masters in translation: do they have to

change their way to train students who want to become translators? In my opinion, translation training may know some changes and adaptations. Today, in the United Nations system and in WMO for example, translators are increasingly called linguists because they do not only do a translation work anymore, they also complete other tasks such as post-editing or alignment for example. Nowadays, translator can even machine translate a variety of documents before completing post-editing. Consequently, it would be helpful to train student to post-editing because the skills required for that kind of work are different from those of a translator. Translators are doing more and more post-editing work as the tools become more and more powerful, delivering quality results, and enabling them to work more and faster. Consequently, we could say that the future of translation may lie in the development of post-editing, which consists of intervention on a pre-translated document by an artificial intelligence machine. This intervention by the translator improves the document by correcting errors of meaning, spelling, typing or punctuation. The translator also checks that the automatically translated text corresponds to the source text and that the sentences have the same meaning. The translator can also expand the text by adding words or synonyms.

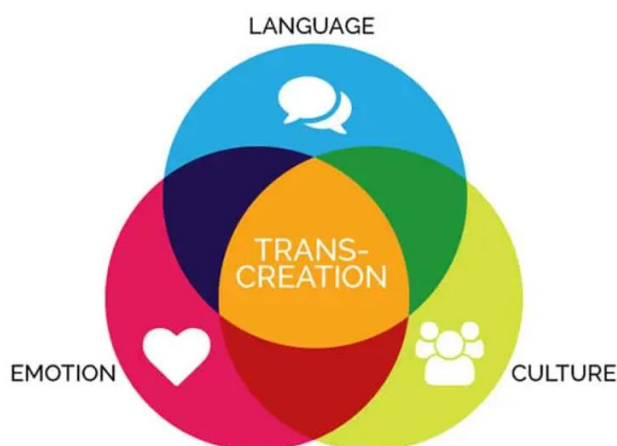
Moreover, the translator's profession is a totally digital profession. Translators are not working on paper anymore, but they use many online tools and resources. Consequently, future translator, when they arrive in the professional work, should be able to use these various resources and tools. For example, as translators use computer-assisted translation tools, whether in translation agencies, within the United Nations system or any other structures, it is important to be trained to use these tools. Moreover, at the University for example, to prepare for a better integration into the professional work, it is more useful to learn how to work in a digital environment, compared to learning to translate on paper and without the aid of tools. Indeed, with the arrival of artificial intelligence, translators rarely translate a full document without any resources or internet access. It is consequently important to acquire new skills to know how to use translation tools and adapt them to their translation. As many new resources are now available to translator, they should also be trained to use some desktop-publishing tools, computer-assisted translation tools but also to some more basic tools such as Word, Excel, PowerPoint or even how to use some search engines in general. With the advent of the Internet and social networks, information is circulating faster and faster. That's why it is important for translators to keep abreast of the latest news, and in particular the arrival or deletion of new words. For example, last year, the Turkish president asked the United Nations Organization to change the spelling of Turkey

with Türkiye because of the image associated with the bird traditionally eaten for Christmas, New Year or Thanksgiving. Several international bodies are therefore asked to make the name change.

Consequently, it is not a question of completely changing the training offered to students in translation, but rather of adapting it to the developments facing the translation field. It is therefore necessary for future translators to acquire new skills such as the mastery of online tools, computer-assisted translation tools or desktop-publishing tools. These recommendations apply not only to future translators, but also to people who have been translators for several years. As the profession has evolved, it is therefore important for all translators to adapt to the new tools and resources now available. Moreover, especially for freelance translators, competition in the translation market is high which forces translators to adapt quickly to the new resources and tools to produce as much and as quickly as the others. Artificial intelligence capabilities are therefore driving the human translator to constantly excel to propose a better translation than the computer or the machine. The translator must therefore constantly look for synonyms, new expression, new sentence restructuring to offer the best translation. He or she must make choices to confirm that the human translator work is better than the one of the machines. To ensure the succession of language services, the United Nations has developed partnerships with various higher education establishments specializing in the training of linguists.

Nowadays, we also talk about transcreation which comes from the two English words “translation” and “creation”. It designates a creative translation process of adapting a message from one language to another while maintaining its intent, style, tone, and context but also the original intention of the message and to adapt it to a different public. This task requires strong skills and knowledge of the intended audience. The “transcreator” adapts his work to his readership and sometimes shows more creativity than the usual translator.

As we can see below, transcreation aims transcribe the emotion of the text in a determined language and adapting it to the local culture.



*Figure 15: scheme representing transcreation*

Transcreation is a discipline that is rather part of a commercial approach. Consequently, within the United Nations system and within the World Meteorological Organization it is not a very used process. However, we can consider transcreation as a process which will be increasingly used in the next years. Indeed, as artificial intelligence is not yet able to transcribe the emotion of a text or to adapt to a determined culture, we can consider that “transcreator” profession has bright future. Since no machine can transcribe style, emotion, or culture, this profession remains consequently essential to ensure an accurate translation.

#### D. Example of a translation realized by a human translator and by a machine translation tool

Recently, a new kind of artificial intelligence was created: ChatGPT. It is a chat services that allows people to chat and ask questions to a robot. For example, we can ask it to translate a text. The result is rather impressive since it can translate a text quickly in several languages, but it does have its limitations. To compare human and machine translation, I decided to compare two

text extracts from a WMO publication<sup>25</sup> entitled “State of the Climate in Europe 2021” (WMO-No. 1304). The first is my translation from English to French, as a translation student, and the second is the translation of the ChatGPT artificial intelligence, from English to French as well. The extract comes from the foreword of the publication, and we will see that artificial intelligence presents some limits and make mistakes, especially regarding the WMO common terminology and rules that must be respected to ensure a common translation in the six WMO official languages.

The English selected extract from the publication is as follows:

“The WMO State of the Climate in Europe 2021 is the first edition of a climate report to be published annually by WMO’s Regional Association for Europe (WMO RA VI) and the European Union’s Earth observation programme, Copernicus. The report provides the status of key climate indicators using WMO and partner organizations’ operational monitoring systems and the latest data and information on impacts, risks and policy from United Nations agencies. It addresses specific physical science, socioeconomic and policy aspects that are relevant to the WMO RA VI domain and responds to Members’ needs in the fields of climate monitoring, climate change and climate services. The present report also makes use of the latest findings presented in the reports of the Intergovernmental Panel on Climate Change (IPCC) and the Copernicus European State of the Climate report”.

Below is my proposed translation into French, based on research and the use of different resources and tools such as UNTERM or the “*Manuel d’édition*” provided by the World Meteorological Organization:

« *L’État du climat en Europe 2021* de l’OMM est la première édition d’un rapport sur le climat qui sera publié chaque année par le sixième Conseil régional pour l’Europe de l’OMM et le programme Copernicus d’observation de la Terre de l’Union européenne. Le rapport fait le point sur les principaux indicateurs climatiques en s’appuyant sur les systèmes opérationnels de surveillance exploités par l’OMM et ses organisations partenaires, ainsi que sur les données et informations les plus récentes sur les impacts, les risques et politiques émanant des organismes des Nations Unies. Il traite certains aspects de la science physique, des conditions socio-

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<sup>25</sup> [https://library.wmo.int/doc\\_num.php?explnum\\_id=11378](https://library.wmo.int/doc_num.php?explnum_id=11378)

économiques et des politiques qui intéressent la Région VI de l'OMM, tout en répondant aux besoins des Membres concernant la surveillance du climat, le changement climatique et les services climatologiques. Le rapport s'appuie également sur les dernières conclusions présentées dans les publications du Groupe d'experts intergouvernemental sur l'évolution du climat ainsi que dans le rapport Copernicus sur l'état du climat européen ».

We are now going to look at the translation provided by ChatGPT artificial intelligence:

« Le "Rapport de l'OMM sur l'état du climat en Europe 2021" est la première édition d'un rapport sur le climat qui sera publié chaque année par l'Association régionale de l'OMM pour l'Europe (OMM RA VI) et le programme d'observation de la Terre de l'Union européenne, Copernicus. Le rapport fournit l'état des principaux indicateurs climatiques en utilisant les systèmes de surveillance opérationnelle de l'OMM et des organisations partenaires, ainsi que les dernières données et informations sur les impacts, les risques et les politiques des agences des Nations Unies. Il aborde des aspects spécifiques des sciences physiques, socioéconomiques et politiques qui sont pertinents pour le domaine de l'OMM RA VI et répond aux besoins des membres dans les domaines de la surveillance du climat, du changement climatiques et des services climatiques. Le présent rapport utilise également les dernières conclusions présentées dans les rapports du Groupe d'experts intergouvernemental sur l'évolution du climat (GIEC) et du rapport sur l'état du climat européen Copernicus ».

As we can see, ChatGPT is able to deliver a good quality translation that allows to understand the meaning of the text. However, to meet the requirements of a client, or in this case of the World Meteorological Organization part of the United Nations, the translation contains too many errors. Indeed, artificial intelligence is unable to respect the restrictions, rules and standards imposed by the Organization, which are essential to guarantee a common, accurate and consistent translation. First, as we have seen above, WMO contains a common terminology that must be respected. Indeed, the translator must ensure the accurate translation of the acronyms such as "Intergovernmental Panel on Climate Change (IPCC)" which corresponds to "*Groupe d'experts intergouvernemental sur l'évolution du climat (GIEC)*". Moreover, the translator must check the translation of WMO specific terms such as "Regional association" which must be translated as "*Conseil régional*" by WMO translators but that has been translated by "Association régionale" by ChatGPT, which is false, as mentioned in the "Manuel d'édition", if we want to produce a translation that respect WMO requirements.

Moreover, artificial intelligence is unable to understand all the subtleties of the text. For example, at the beginning when the text refers to “The WMO State of Climate in Europe 2021” it refers to the publication and not the state of climate in general. Consequently, I decided to translate the publication name with “*L’État du climat en Europe 2021*”, what ChatGPT translated “*Rapport de l’OMM sur l’état du climat en Europe 2021*”. We can also see that artificial intelligence has difficulty translating when it comes to acronyms, since it is unable to find their meaning, whereas the human translator must research them to find their accurate signification. For example, ChatGPT left “*le domaine de l’OMM RA VI*” while it corresponds to the Sixth Regional Association that can be translated in French as “*Région VI*” or “*Conseil regional VI*”. If we leave the expression translated by ChatGPT, the French-speaking reader may not be able to understand the meaning, especially if he or she is not a specialist in this field or has no knowledge of the Organization. Moreover, the machine does not differentiate between “*climatique*” and “*climatologique*” in French, while there is a major difference that must be taken into account by WMO translators. Indeed, as mentioned in the “*Manuel d’édition*”, “*climatique*” refers to natural phenomena while “*climatologique*” refers to human facts. This difference that is not considered by ChatGPT can have serious repercussions especially for Organizations part of the United Nations.

In the ChatGPT translation, we can also see some repetitions as well as sentences not very well structured. This confirms the fact that artificial intelligence can produce a good quality translation in order the reader understand the general idea of the text. However, this has many limitations and basing a translation only on artificial intelligence does not guarantee to have an accurate result that completely corresponds to the source text. Indeed, especially within the United Nations and within the World Meteorological Organization, many rules must be respected by the translators because mistranslations or counter-meanings can have serious repercussions. The human translator can therefore use artificial intelligence but must not depend entirely his or her work on it: he or she must verify the information, the meaning and particularly the exact meaning of a term or acronym as defined by the Organization. As mentioned above, the human translator presence remains essential to produce a translation that corresponds to the source text, which respect the potential restrictions and to ensure the correct transmission of the message, without mistakes.



## **Conclusion**

The United Nations is an indispensable authority for building a better world and meeting complex, ever-changing challenges. The World Meteorological Organization (WMO) is a specialized agency part of the United Nations system which aims to ensure the safety of the planet's inhabitants in the face of various meteorological phenomena and through its various programs. Within this context, multilingualism is an essential factor for harmonious and transparent communication. The linguistic diversity within these organizations makes the translator's profession essential, to convey information from one language to another clearly and comprehensible to all. The translator is then confronted with certain constraints of a linguistic, terminological or layout nature. The United Nations system, including the World Meteorological Organization, imposes certain restrictions which must be respected by translators, using the various common resources at their disposal.

As in all fields, the language field has also undergone major changes with the arrival of artificial intelligence. Translators now have a wide range of translation tools at their disposal, enabling them to translate faster and more efficiently. However, artificial intelligence does have its limits, and translators need to be careful to make good use of it. Despite the advent of artificial intelligence, the translator remains indispensable, particularly within the United Nations system and within the World Meteorological Organization, which are organizations dealing with specific subjects and where errors could have serious repercussions. Consequently, by combining translation based on artificial intelligence with translation carried out by a human translator, we obtain an impressive result and a very high-quality translation. Translators still play the same role in transmitting information from one language to another, but they now have new tools and resources at their disposal, enabling them to produce accurate and common translations in all the UN's official languages. Moreover, as we have seen in this research work, human collaboration remains therefore essential to ensure the accuracy of the transmitted information, but also because the translator's profession requires open-mindedness and curiosity, as well as an international outlook, especially within the United Nations system and consequently within the World Meteorological Organization. As the translator's profession has undergone major changes, doubts, and questions about the future of the profession are emerging. The future of translation may lie in neural translation, which is now used in translation services, but despite the arrival of artificial intelligence and its revolution in the field of translation, nothing can replace a human translator. The machine is not yet capable of understanding the subtlety of a text, conveying an emotion, or adapting to the culture of a country. Consequently, the nature of the tasks involved is changing,

and the skills required are becoming increasingly complex. It is therefore important to train future translators in these new resources and help them acquire new skills.

Oral translation seems to be an area that has not been very affected by the artificial intelligence. However, this field is also experiencing some changes with the arrival of artificial intelligence which consists in simultaneously translating dialogues allowing the oral translation of conferences, meetings, or even seminars. We can therefore conclude by saying that artificial intelligence revolutionized the translation field, but human presence and collaboration remains essential to ensure an accurate transmission of the information, especially within the United Nations system and within the World Meteorological Organization where strict rules and standards must be respected.

During my internship within the World Meteorological Organization (WMO), I realized the importance of communication, especially within Organizations part of the United Nations system, and that artificial intelligence would not immediately replace the human translator. During my internship within the World Meteorological Organization, even if I encountered a few difficulties regarding the Organization's specialization in meteorology, I particularly liked the multicultural aspect, within the Linguistic department but also within the whole Organization. I particularly liked to work with people from different nationalities, with different cultures, and coming from different countries. This aspect was particularly enriching as it is directly linked to the language and therefore to the translation field. Being an intern in the World Meteorological Organization gave me the opportunity to discover translation in the professional world, and particularly within the United Nations system which represents a very enriching environment, both for translating and for meeting people from different backgrounds. This internship within the World Meteorological Organization (WMO) confirmed my desire to pursue a career in translation, particularly within international organizations, and ideally within an organization serving the United Nations.

**Annex**

*Annex 1: World Meteorological Organization building in Geneva (Switzerland)*



*Annex 2: Nineteenth World Meteorological Congress at the Conference International Centre of Geneva*



*Annex 3: Part of WMO linguistic team*





*Annex 4: Visit of the Palais des Nations*



*Annex 5: Conference room of the Palais des Nations*



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**MASTER 2 MÉTIERS DE LA RÉDACTION ET DE LA TRADUCTION**  
**FICHE D'ÉVALUATION DU TRAVAIL DE LA STAGIAIRE OU DU**  
**STAGIAIRE DANS L'ÉTABLISSEMENT D'ACCUEIL**

**Cette fiche doit obligatoirement être jointe à la fin du mémoire de stage**

**À REMPLIR PAR L'ÉTUDIANT-E**

NOM et Prénom de l'étudiant-e : CAGNIN Céleste
Adresse : 6 rue du stade
Code postal : 01500                      Ville : Château-Gaillard
Numéros de téléphone (fixe et portable) : 06 46 80 46 63
Adresse e-mail : celestecagnin26@gmail.com
Établissement d'accueil : Organisation météorologique mondiale
Secteur d'activité : Météorologie
Tutrice ou tuteur de l'établissement d'accueil :
NOM, Prénom : Gemma Capellas
Numéro(s) de téléphone :
Adresse e-mail : GCapellas@wmo.int
Dates du stage : du 03/01/2023                      au 02/06/2023                      Durée : 22                      semaines

**À REMPLIR PAR LA TUTRICE OU LE TUTEUR DE L'ÉTABLISSEMENT D'ACCUEIL**

<b>COMPORTEMENT GÉNÉRAL – « SAVOIR-ÊTRE »</b>				
Éléments d'appréciation	Insatisfaisant ou Ne peut se prononcer	Peu satisfaisant	Satisfaisant	Très satisfaisant
1 La ou le stagiaire a su s'intégrer rapidement à son équipe de travail (assiduité, ponctualité, disponibilité, bonne volonté).  Remarques : Mme Cagnin a su s'intégrer rapidement à son équipe et à l'équipe de stagiaires. Elle a été une bonne collègue et a participé activement aux réunions ou autres activités de l'équipe.	Ins <input type="checkbox"/> NPSP <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2 La ou le stagiaire a su travailler avec efficacité et persévérance.  Remarques : Mme Cagnin a traduit divers documents de l'OMM (correspondance, vidéos, documents de session) et des documents plus techniques ( <i>April Global Seasonal Update</i> ). Elle a post-édité tous les documents de deux organes constituants de l'OMM.	Ins <input type="checkbox"/> NPSP <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3	La ou le stagiaire a su prendre des initiatives.  Remarques :	Ins <input type="checkbox"/> NPSP <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	La ou le stagiaire a su faire preuve de curiosité dans les missions confiées/par rapport à l'établissement d'accueil.  Remarques : Oui, elle a volontairement participé à deux formations en espagnol, organisées en dehors des heures de travail: Introducción a la oceanografía física: conceptos para entender el funcionamiento de los océanos, par Belén Martín Miguez, et Curso de formación sobre las tormentas de polvo y arena y sus impactos, par Sara Basart.	Ins <input type="checkbox"/> NPSP <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	Qualités de communication de la ou du stagiaire dans l'établissement d'accueil ou le service (politesse, courtoisie...)  Remarques : Dévouée, efficace et autonome, Mme Cagnin ne manque pas de prendre des initiatives. Elle s'exprime clairement et efficacement, tant oralement que par écrit; écoute les autres, pose les questions voulues afin d'obtenir des éclaircissements et facilite le dialogue.	Ins <input type="checkbox"/> NPSP <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Capacité à communiquer et à s'exprimer avec le personnel et/ou les fournisseurs/euses et/ou les client-es.  Remarques : Aptitude à travailler en équipe, dans un environnement multiculturel. Solides compétences en matière de communication orale et écrite.	Ins <input type="checkbox"/> NPSP <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>CONNAISSANCES ET POTENTIEL – « SAVOIR-FAIRE »</b>					
7	Niveau de compréhension orale de la ou du stagiaire :  - en français, - en anglais, - en espagnol, - autre (préciser).  Remarques :	Ins <input type="checkbox"/> NPSP <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8	<p>Niveau d'expression orale de la ou du stagiaire :</p> <ul style="list-style-type: none"> <li>- en français,</li> <li>- en anglais,</li> <li>- en espagnol,</li> <li>- autre (préciser).</li> </ul> <p>Remarques :</p>	<p>Ins <input type="checkbox"/>  NPSP <input type="checkbox"/></p> <p><input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/></p>	<p><input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/></p>	<p><input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/></p>	<p><input type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input type="checkbox"/></p>
9	<p>Niveau de compréhension écrite de la ou du stagiaire :</p> <ul style="list-style-type: none"> <li>- en français,</li> <li>- en anglais,</li> <li>- en espagnol,</li> <li>- autre (préciser).</li> </ul> <p>Remarques :</p>	<p>Ins <input type="checkbox"/>  NPSP <input type="checkbox"/></p> <p><input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/></p>	<p><input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/></p>	<p><input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/></p>	<p><input type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input type="checkbox"/></p>
10	<p>Niveau d'expression écrite de la ou du stagiaire :</p> <ul style="list-style-type: none"> <li>- en français,</li> <li>- en anglais,</li> <li>- en espagnol,</li> <li>- autre (préciser).</li> </ul> <p>Remarques :</p>	<p>Ins <input type="checkbox"/>  NPSP <input type="checkbox"/></p> <p><input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/></p>	<p><input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/></p>	<p><input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/></p>	<p><input type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input type="checkbox"/></p>

11	<p>La ou le stagiaire a su utiliser ses compétences en langue(s) étrangère(s) :</p> <ul style="list-style-type: none"> <li>• à l'écrit : <ul style="list-style-type: none"> <li>- anglais,</li> <li>- espagnol,</li> <li>- autre (préciser).</li> </ul> </li> <li>• à l'oral : <ul style="list-style-type: none"> <li>- anglais,</li> <li>- espagnol,</li> <li>- autre (préciser).</li> </ul> </li> </ul> <p>Remarques : Mme Cagnin a volontairement participé à deux formations en espagnol, mais elle n'a pas dû utiliser l'espagnol comme langue de travail pour la traduction.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	<p>La ou le stagiaire est parvenu e à un niveau de connaissance globale du monde propre à l'établissement d'accueil satisfaisant au terme de son stage.</p> <p>Remarques : Mme Cagnin a sû assurer, sous l'égide de collègues de rang supérieur, la traduction de documents de l'OMM portant sur des sujets de portée générale ou des domaines plus techniques, en se servant du Manuel d'édition française de l'OMM;</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	<p>La ou le stagiaire a su faire preuve d'efficacité dans les missions qui lui ont été confiées.</p> <p>Remarques : - Intérêt par les logiciels de publication assistée par ordinateur, tels que Typefi. - Bonne connaissance et pratique de la recherche en terminologie sur Internet ou autres sources.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	<p>La ou le stagiaire a démontré de réelles capacités de réflexion et d'analyse.</p> <p>Remarques : Mme Cagnin a traduit des textes et a sollicité l'avis du réviseur si besoin, a effectué les recherches terminologiques nécessaires afin que les travaux définitifs requièrent un minimum de révision.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

15	La ou le stagiaire a su être méthodique, organisé-e, autonome (a su gérer les urgences, a su trouver les informations nécessaires, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Remarques : Mme Cagnin a montré une bonne aptitude à travailler sous pression et à respecter des délais courts, en veillant à avoir une productivité optimale et à satisfaire aux normes de qualité établies.				
16	La ou le stagiaire a démontré de réelles compétences dans l'utilisation des outils informatiques.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Remarques : - Bonne connaissance des outils de bureautique courant (Word, PowerPoint, Excel). - Connaissance d'outils de bases de données.				
17	La ou le stagiaire a su mettre en œuvre et/ou développer des compétences techniques propres au domaine professionnel dans lequel s'est déroulé le stage (éventuellement, préciser lesquelles).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Remarques :				

**Avis général sur le stage/le travail de la ou du stagiaire :**

Mme Cagnin a traduit de l'anglais vers le français divers documents officiels de l'OMM (correspondance, vidéos, documents de session) portant sur un large éventail de sujets. Elle a également traduit le *April Global Seasonal Update*, un document plus technique. Elle a post-édité en français tous les documents d'information traduits automatiquement pour les sessions de deux organes constituants (soixante-seizième session du Conseil exécutif de l'OMM (EC-76) et Dix-neuvième Congrès météorologique mondial (Cg-19)). Elle a veillé à ce que les documents produits soient compréhensibles et exacts et a corrigé les erreurs de traduction et les contenus inappropriés. Nous encourageons Mme Cagnin à continuer d'approfondir ses connaissances linguistiques, scientifiques et techniques.

Au cours de son stage, elle a rapidement appris à utiliser eLUNA, l'outil de traduction assistée par ordinateur utilisé par l'OMM et d'autres agences des Nations Unies, ainsi que les documents de référence internes et les ressources terminologiques de l'Organisation. Elle s'est également intéressée aux sujets traités par l'OMM et a participé à deux formations en espagnol : l'une sur l'océanographie physique (*Introducción a la oceanografía física: conceptos para entender el funcionamiento de los océanos*), donnée par Belén Martín Míguez, fonctionnaire scientifique de l'OMM, et une autre sur la poussière atmosphérique (*Curso de formación sobre las tormentas de polvo y arena y sus impactos*), donnée par Sara Basart, fonctionnaire scientifique de l'OMM et responsable du système d'alerte et d'évaluation de l'OMM pour les tempêtes de sable et de poussière.

À l'occasion de la soixante-seizième session du Conseil exécutif de l'OMM (EC-76), du 27 février au 3 mars, et du Dix-neuvième Congrès météorologique mondial (Cg-19), du 22 mai au 2 juin 2023, Mme Cagnin a aidé les services de conférence de l'OMM au bureau d'inscription à préparer, imprimer et distribuer les badges d'accréditation aux participants, à l'aide du système d'enregistrement des manifestations (ERS), et a également aidé le personnel des services de conférence au sein du Centre International de Conférences de Genève.

**NOTE SUR VINGT** (note à inscrire en chiffres ET en lettres) : 20 / 20 (= ..... Vingt ..... sur vingt).

En tant que tutrice ou tuteur de l'établissement d'accueil, avez-vous remis, en complément à ce document, une lettre d'évaluation du stage de la ou du stagiaire ?

OUI  NON

Si oui, cette lettre devra figurer à la fin du mémoire de stage.

☞ Seriez-vous prêt-e à reprendre un-e stagiaire Master 2 MRT ?  OUI  NON

☞ Accepteriez-vous d'être contacté-e pour verser la Taxe d'Apprentissage à l'UFR Arts Lettres Langues (Mention de Master « Traduction et Interprétation ») de l'Université Jean Monnet de Saint-Etienne ?

OUI  NON

Date : Genève, le 11 juillet 2023

NOM, Prénom de la tutrice ou du tuteur de l'établissement d'accueil :

CAPELLAS ESPUNY, Gemma

Fonction exercée ou poste occupé au sein de l'établissement d'accueil :

Responsable de la production linguistique, Département des services de gouvernance

Signature :



Cachet de l'établissement d'accueil :