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Artificial Intelligence (AI) and Translation Teaching: A Critical Perspective on the Transformation of Education

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ABSTRACT The majority of the universities and private institutions have initiated the use of artificial intelligence (AI) and machine translation (MT) in teaching translation. Translators have been trained by a systematic teaching method with newly designed curriculum with the addition of computer-assisted technology. However, the learner's face-to-face experience is relating them to advance self-learning of languages through AI machine, which lack the motivational mechanism. This review paper presents the recent advancement in the use of AI and MT in the teaching translations to translators. The aim of the study is to investigate the pedagogical implications of AI for teaching translation studies. The study concludes that there is lack of critical reflection of challenges and jeopardies of AI in translation teaching, there is a weak connection to academic instructive perceptions, and that there is a need for further exploration of principled and enlightening approaches in the application of AI in translation teaching in higher education.

INTRODUCTION

Translation has become a significant discipline in the world in business, trade, the tourism industry and even language learning in China, Hong Kong, South Korea, UK, etc. The recent growth of artificial intelligence (AI) has transformed teaching translation into something very handy and more approachable than before. The application of AI in education (AIEd) has been the subject of research for about 30 years (Chung and Ahn 2021; Zawacki-Richter et al. 2019). Advancement of translation applications and tools has given birth to self-study and has provided language teaching a classroom aid. However, many conspiracies and controversial elements still exist on the accuracy level of AI translators and non-existence of the human element to avoid obvious mistakes. Bostrum (2017) argues that one is yet to attain the level of Artificial General Intelligence, where the processing capabilities of machines matches the cognitive capabilities of humans, while Bostrum (2017) suggests that the world has endured an 'AI Winter' where AI proponents have suffered loss of credibility. In recent years, however, there has been resurgence in the development of machine intelligence, deep learning and cognitive architectures, and there are those who continue to predict a brighter future for AI across all sectors of society (ALPAC 1966; Kelly 2017; Bates et al. 2020).

Previously, the scriptures of the tower of Babel say that people at first communicated totally in just one language. In the quest of human beings to develop themselves and get known they started developing an enormous tower to reach the sky. The God saw the haughtiness of the people and did not approve it, and therefore to avenge it He confounded their language, that is, the Hebrew word Babel means "to confuse" or "to befuddle".

Whereas, Lynch (2017) argues, "If AI is going to benefit education, it will require strengthening the connection between AI developers and experts in the learning sciences. Otherwise, AI will simply 'discover' new ways to teach poorly and perpetuate erroneous ideas about teaching and learning. Comprehension and understanding are indeed important foundational skills, but AI so far is not helping with the development of higher order skills in learners of critical thinking, problem-solving, creativity and

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knowledge management." Garrison (2017) proposed a comprehensive description of AI, that is, "computers which perform cognitive tasks, are usually associated with human minds, particularly learning and problem-solving" (p. 62).

With the advent of proper systematic language in the form of spoken and written communication, human translation became the vital skill to communicate across different cultures, regions and communities. Humans possess the ability to understand the contextual meaning of language and also its cultural significance. However, in modern times the advancement of technology has introduced a new phenomenon in the form of Artificial Intelligence, which is questioning and challenging the very idea of human translation. Touching upon the existing literature review and recent advancement in translation and AI translators, the study explores the answer to questions such as, are AI translators certainly superior to human translators, and should EFL learners leave traditional classroom to learn a language, does it mean that human translation's future is in danger, and if one is supposed to expect that human translation will soon be a thing of the past.

METHODOLOGY

The paper presents a review of recent studies on application of machine translation and artificial intelligence in translation teaching. The study highlights the methodological applications, current developments, practices of AI in translation teaching and recommendations. The paper is structured as follows. The first section offers introduction to AI and MT with the particular focus to translation teaching, and the debate on the digitalisation of human translation. Further, it explains the application of AI and MT in different settings. Finally, it provides discussion on some of the examples extracted from recent works, and some technological issues before conclusion of the study.

RESULTS AND DISCUSSION

Origin of Artificial Intelligence and Translation Teaching

In order to understand the origin of Artificial Intelligence completely, first, one needs to look into some of the ancient myths. According to the variety of ancient myths around the world, inanimate objects were springing with life from time to time. One such story was the story of Jewish of the golem, a clay figure who got life through the use of magic. Many philosophers consider these stories as the emblematic portrayals of human knowledge. They consider them to be the prophecy that human knowledge and information will reach beyond the understanding of present times. In modern times the origin of Artificial Intelligence can be traced back to the experiments of British polymath, Alan Turing. In 1950 Turing introduced the "Turing Test", in which a human questioner would be asked questions from two unseen respondents, such as a computer and a human. After multiple experiments, if fifty percent of the participants considered that the computer was then considered to have the ability to think and react like humanbeings. The sort of vocabulary and technology Turing was introducing was way ahead of its time.

In 1956, for the first time the word Artificial Intelligence or "AI" was introduced by John McCarthy (Rajaraman 2014), a researcher at Darmounter Summer Research Project on Artificial Intelligence. This event was crucial in raising awareness and enthusiasm regarding Artificial Intelligence and machine interpretation, as that has prompted the headways for today, for instance, neural machine learning.

AI translators are digital humans, tools or applications that use advanced technology to translate images, visuals, human speech and even translate the meaning. These digital tools provide rapid translation in greater accuracy and a fewer misunderstandings of different languages. The trend of using such tools has grown from the last decade in all sectors. For example, Baidu translators, Google translators, Duolingo App, Siri, or Rosetta Stone are well-known translators among the people.

Translation teaching is genuinely offered in schools of foreign languages, and English departments in China. Many universities have opened bilingual departments as well for the teaching of translations. Previously teaching translation was limited to certain courses, but now it has become an independent degree course. Many universities are offering Bache-

lor's and Master's degrees in translation studies (Klutka et al. 2018).

Neural Machine Learning

Children acquire language by listening to others and identifying designs and patterns in the language. Like children, design acknowledgement is utilised in AI called Neural Machine Translation (NMT). NMT uses an electronic network trained to identify designs in the receiver information or data and translate it into the desired knowledge as output data. For example, a sentence in the Mandarin language would be translated into English with very fewer errors or no errors at all. In the process, the network would receive thousands of patterns in the Mandarin language, and its English language equals. In order to translate a Mandarin sentence into English, the computer would receive a Mandarin sentence and afterwards will think about its English counterpart. Then, it will be analysed how accurate the computer has translated the Mandarin sentence into English. This process repeated many times will help the computer to increase its accuracy and precision. After this, the experts of language will introduce a new sentence to check if the system has figured out how to use its learnings.

Google Translate utilises NMT and its not awful for broadly communicated in and widely known dialects such as Mandarin and English. It means that the languages or dialects that are mostly used and more people are familiar with them, NMT can be used effectively such as Google Translate is doing it. Notwithstanding, that if less known dialects such as Samoan are used, one can get a mistake like the one underneath:

The English word "honeymoon" means the vacation a couple takes on soon after their marriage. If this word is translated in a lesser-known language like Samoan, it is translated to "Samoa", meaning "a pacific island nation".

NMT can also create errors if you are translating from languages that do not have gender-specific pronouns to the languages that consist of gender-specific pronouns, for example, Malayalam, Uzbek and French English.

Recent Changes to the Translation Industry

It is evident that translation based on AI is still full of errors, and in comparison, human translation is more accurate and thus preferred. However, the recent trends in AI are compared to the previous 10 years progress, and AI has undoubtedly shown tremendous improvement. A Japanese store, with the help of CM translator, can now do business in multiple languages around the whole world without any need of hiring the professional translators.

Before the advent of AI translation methods, human translators used to translate everything with the help of the translation dictionary. The translators now use NMT for the initial phase of translation and then find the errors and edit it just like proofreading it. This is true that with the help of NMT, the cost can be reduced to negligible and bulk amount of text can be translated in no time. It is therefore predicted that in the future, as by 2022, most of the business translation will be done by NMT. Later on, this text will be cleaned up of errors by human translators or editors. However, ones still heavily relies on human translation to remove errors from machine-translated texts.

What Does the Future Hold?

Besides written text translation, there has been amazing progress in speech translation, better known as interpretation. For speech translation, networks like Google's Pixel Buds, Waverly Labs Pilot, and Bragi are machine ear buds, which can directly interpret discourse of one language and play the sound back in one's local language. Nevertheless, the problem with this device is that they cannot separate the human voice in loud, noisy surroundings. With future advancements, people may arrive at a point where some innovation may help understand every language.

Discussions: Machine Translation Learning (MT) and Artificial Intelligence (AI)

Wilks (1972) define machine learning "as a subfield of artificial intelligence that includes software that is able to recognise patterns, make predictions, and apply newly discovered patterns to situations that were not included or covered by their initial design" (p. 2). To further explore the topic, one needs to understand that though AI is important for MT and it can help

shortly, yet it is still constrained and the claim that they may be able "to understand all the knowledge in the universe" is yet indeed very tall (Wilks 1975). According to Bar-Hillel's argument (1962), MT was not practical because it is very similar in its logic to AI. Bar-Hillel further pointed out at the time of early and later troubled MT period, that machine translation is impractical as well as theoretically inconceivable. He states, "Expert human translators use their background knowledge mostly subconsciously, in order to resolve syntactical and semantic ambiguities, which machines will either have to leave unresolved or resolve by some mechanical rule" (Wilks 1973: 101).

Bar-Hillel's initial argument was based on the fact that syntax analyses are more suited to the task of translation as according to the old myths they were capable of providing grammatical parsing of the sentences for instance, "time flies like an arrow". If standard dictionary rules are followed, any of the first three words could be used as verbs. For example, if 'time' is a verb, then the sentence is a command sentence. However, if 'like' is taken as a verb, the sentence will be more considered as an expressing one. This shows that for understanding a sentence completely, an expert in linguistic semantic is needed rather than it should be left at the mercy of machine translation.

According to the argument presented by Bar-Hillel (1962), it was not specifically a matter of semantics, but it depends mostly on human knowledge. For example, a straightforward sentence, "he paddled down the river in a canoe". The machine analyser will not be able to distinguish whether the phrase "in a canoe is connected to 'paddled' or 'river"'. The sentence in the first reading means one went down a river, but it implies that one went down a river that was inside a canoe. The same sentence structure can be compared to another such sentence, for example, "he paddled down the river in an explored province of Brazil". For linguistic semantics, the above example would mean that it is part of the meaning of "canoe", that the other objects went into the river and not otherwise. Nevertheless, AI would argue that it is just based on the fact that "canoe" is in the rivers. In reality, there is no justification or clear explanation on which these views can be based.

Bar-Hillel (1962) argued further by presenting an example of a story of a child. This story is considered as perhaps the best example in the entire history of MT. The story states, "Little John was looking for his toy box. Finally, he hounds it. The box was in pen. John was very happy". The main focus of Hillel's attention is on the third sentence, that is, "the box was in the pen". The last word 'pen' can be interpreted as meaning 'playpen', and not writing 'pen'. Bar-Hillel explains that it can be clearly understood that to expect the connection of baby with a playpen is more natural than the concept of baby and writing pen. Bar-Hillel (1962) further advocates that if the third sentence was "the inkstand was in the pen", the meaning has been totally changed. The argument of Bar-Hillel (1962) and the advocate of AI such as Minsky are to some extent alike. Minsky (1975) also thought that MT needs human-like knowledge that can understand as well as this knowledge needs to be programmed in a system.

Minsky (1975) argued, "It is now almost generally agreed upon that high-quality machine translation is possible only when the text to be translated has been understood, in an appropriate sense, by the translating mechanism". It is this point where Hillel (1962) and Minsky (1975) disagree with each other. According to Hillel (1962), the possibility of MT is almost negligible, and its explained and demonstrated thoroughly. However, Minsky (1975) believes that the phenomena is just defined and not elaborated. Minsky (1975) further argues that it is the responsibility of AI experts to work on it further. The differentiation is clear between the perspectives of Hillel (1962) and Minsky (1975) on the one hand and perspectives of linguists on the other hand.

On the other hand, Chomsky's (2014) generative hypothesis is, likewise, from a reasonable perspective, a response to the disappointment of the early machine interpretation work. In that context, they presented the case with incredible power for a strong hypothesis of the linguistic structure of common dialects as a precondition for any development with machine and language. According to Katz and Fodor (1963), semantics in connection to Chomsky grammar, figuratively speaking, the linguistic sample to those in machine parsing who believe that only semantic

data would be sufficient to resolve the different investigation of the famous "time flies like an arrow". The basis of Katz and Fodor's strategy was a calculation based on the reiteration of "semantic markers".

The issue concerns the reliance of standard simulation, which is in one way a two-path analogy (on analysis an establishment) yet one could contend that it may depend semantically on either retreatment and combustion since these are the two cycles that could be mimicked as the prior two. Presently, one way contends as follows, semantics implies attacking markers and searching for reiteration, so one may join a marker, state process to analyse, establishment, recreation and maybe combustion and retracement too. The issues with this strategy ought to be self-evident, as one has joined similar conceivable semantic marker to all the potential outcomes, and thus, there can be no separation (of the right reliance, for this situation, on analyse). The peruser ought to welcome the power of this model for, if basically semantic, the reliance of standard reproduction or investigate cannot be dictated by rules (more grounded, as one will see than simple redundancy of semantic markers) at that point a remarkable syntactic structure for the sentence cannot be acquired either.

One needs to investigate further what is the AI response to Bar-Hillel's approach. It is different in the sense that since the beginning it had emphasised on the importance of "human knowledge structures" formulated in systems that can be comprehended, but this system needs to devise processes or strategies by which this knowledge can be utilised. Here, by the term process, it is implied that a comprehensive theory should be devised in the proper symbol processing manner. The problem with AI here is that it still is at zero when it comes to handling terms.

The point is, what is the AI theory of language? Is it important to understand AI theory to get some help in MT? The subject of concern for AI is to investigate how human intelligence works. How can a computer be programmed to work like humans in those areas where the human mind does not even think? For example, seeing and understanding human language and how human mind interprets what is seen and language that one understands. Whereas, some AI advocates study how a machine performs while playing a chess game. However, the main focus of AI is "unconscious tasks". As applied to the field of regular language understanding, this has implied building rudimentary projects to complete composed orders, convert into another dialect, make deductions, answer questions, or essentially carry on a discourse, which is all introduced as composed reactions at a print or video screen.

In addition, it is evident that MT is not like a typical AI language program, unless one accepts Steiner's view that to some extent "all acts of understanding are acts of translation" (1975). As a matter of fact, what is common to all language programs is the fact that all focus is on the need for knowledge to understand and present a theory as a practical system.

One such program by Winograd (1972) has this last assumption of syntactic analysis to grammar programming language according to Winograd's "PROGRAMMER", instead of normal grammar rules like S > NP+VP. This rule is the crux of all grammar and means that a noun phrase followed by a verb phrase makes strong grammatically correct sentences.

Winograd's program acknowledged discourse and orders about a smaller than expected world comprising just a couple of squares and a case, which it could seem to move about on the video screen. He needed to show the part of the information on this microworld of squares as a device for settling syntactic ambiguities in contribution to the framework. For instance, this sentence, "put the pyramid on the block in the box", if analysed properly will solve the confusion of syntax. Does this refer to a specific pyramid (on a block), which needs to be picked up or a specific place where this pyramid should be put in (in the box)?

This Winograd's system is an excellent example of AI, as it provides a plan (how to pick up the blocks) and theoretically providing to show what is under the pyramid. Instead of worrying about the problems left unanswered by the failure of MT (1966), this system focuses on practical problems faced by AI. There is one other school of AI language programs that consist of the work of Charniak (1973), Schank (1975) and Wilks (1973). Afzaal et al. (2020) argue that AI not only helps in language research but also solve problems in translation studies, language

acquisition, and understanding of meaning. The focus of these studies is the significant representation and the use of inference rules, yet it is not concerned with the world of blocks, but more importantly, with the world one lives in. For instance, in a simple sentence such as, "The soldier fired at the women and I saw several falls", it can be assumed that a nature speaker can analyse it as to whether the several words are used for women and not soldiers. Nevertheless, this cannot be explained on any semantic or syntactic ground because the possibility of falling exists for both, unless this same sentence is transitioned into another language where soldiers and women had different genders.

In that case, some general inference rules need to be present. For instance, "if animate things have an object projected at them, they may well drop downwards". The reader may find this example as impossible because this inference cannot always be true. This is something that does not exist in Winograd's blocks system but is very crucial to Charniak, Schank and Wilks' systems. These three systems vary in many aspects. Schank and Wills emphasise on the systems and knowledge that is concerned with a wide range such as man for human being and the above inference rule, but the Charniak's system knowledge is based on more specific terms. In MT, the focus is on the issue expressed in the text. In the larger context, one needs to understand that in the example of "time flies like an arrow", the sentence is about "time", and not about flies or liking.

The focus of Charniak's semantic process is to identify a specific idea, but Schank and Wilks' systems deal with more general rules. However, in Winograd's system, the topic is never important, as everything of the system is represented in blocks. Hence, it is clear that AI can be used to solve the problems that MT is facing, as there is sufficient capability of these systems to talk about protons and neutrons and thus agree with Hillel's statement of "slow neutrons and protons". Much of it depends on the type of examples one chooses to present. There is still confusion whether AI systems have helped to ease out examples such as time flying. Limited knowledge about the situation will suggest that the things that fly are birds and planes and not time. In this context, correct reading will not be possible. This discussion brought the researchers to a sad conclusion that as one interpreted that "we feel as if time moves quickly", this is quite a demotivated result for theoretically driven work.

The more recent development in AI is the proposal of Minsky (1975) in which he argues for the need of knowledge structures and is exploring machine vision too. However, here the focus of the attention is the only language and refers to these as "higher-order structures called as frames". To understand for example, "John went into a supermarket and put some soap into his basket. On impulse, he put a bar of chocolate in his pocket as well, but when he reached the cash desk his face went red, and he said 'I did not mean to take it'." MT will question here as to how would one know if "it" refers to either the chocolate or the soap.

Although, in some languages, there might be gender-specific words for chocolate and soap, and thus it would be effortless to get the idea and decide. However, one still will argue that for such a simple task, some formal structure is needed, which can describe what is normal and what is not in a supermarket. That is what according to Minsky's (1975) frames formalised structures that need to be very specific, Minsky (1975) believed. According to Minksy's definition of frames, "a frame is a data-structure for representing a stereotyped situation, like a certain kind of living room, or going to a children's birthday party". Attached to each frame are several kinds of information. Some of this information is about how to use the frame. Some are about what one can expect to happen next. Some are about what to do if these expectations are not confirmed.

Inspired by Minsky's proposal, Charniak (1975) worked on his own frame for shopping in a market. Schank, on the other hand, came up with somewhat similar results but he named it scripts. According to Schank, scripts can be defined as "a predetermined causal chain of conceptualisation that describes a normal sequence of things in a familiar situation".

In order to get the idea by readers, one needs to define the exact meaning of words, but this PTRANS is demonstrating physical development. Schank's restaurant script has restaurant roles of a customer, waitress, chef and cashier, and the reason is to get food to go down in

hunger, and up in pleasure scene 1 entering PTRANS - go into restaurant MBUILD - find table PTRANS - go to table MOVE - sit down scene 2 ordering ATRANS - receive menu ATTEND - look at it MBUILD - decide on order MTRANS - tell order to waitress and so on for scenes 3 eating and 4 exiting (Wilks 1979).

Schank's students were required to come up with a paragraph-length story about the restaurant and to have to fill up the missing parts taking help from the content above. They will do it in different dialects to give a new definition to MT. Some questions that arise here are what is the role of frames in language comprehension processes? What is the hypothesis they target directly or indirectly? Furthermore, can the results be obtained by any other not so complicated means? It is important to note that frames are vital to understanding the context of the topic. For instance, in the sentence, "John ordered an omelette", it is clear that the aim of the sentence is ordering food rather than ordering people. So, it should be taken in the right sense of the term. If this example is translated into French and German, MT will need to find the correct sense. If one takes the help of the restaurant script, it will be easy for one to take the right sense of the word.

Moreover, the above-mentioned point can be explained further. For example, if there is a word with which the language system is not familiar. For instance, "John ordered Scampi", although "Scampi" is the unfamiliar word and there is no restaurant script available, yet there is only the sense of the word "order", which is quite conventional according to which order is mainly done by humans. However, it is not the ultimate reality, as one need not forget in children's books one comes across sentences like, "the dog ordered a bone in the doggy shop". All these examples show the semantic context according to which one makes choices. In another example such as, "John ordered the numbers", one can say that here order is used in the mathematical sense, as numbers are objects and can be ordered. However, according to the restaurant script, the unfamiliar scampi must be a type of food. So, this is the result of analysing the whole situation under the influence of a restaurant script. Otherwise in the general sense of the term order, one would assume that any physical object can be ordered. Frames and scripts can help and are certainly important, but for that, one needs to decide in advance as to which frame should be selected for analysing a situation sentences as an input.

As a matter of fact, the hints in the above case (a restaurant will not always be available) for example, "they stopped off to eat at a little place he knew", problems also arise as to decide which script to follow and which to ignore. Hence, the real problem is not technical but is subject to what is the choice of frame for users and what they claim. As Charniak puts it "the primary mechanism in understanding a line of a story is to see it as instantiating one or more frame statements". However, this hypothesis is not completely true. In order to understand this an imaginary frame created in Charniak's (1975) system, which will hopefully need no further explanation:

"*Frame: male puberty rite roles: male child, village elder, helpers, crowd reason: placing ritual incisions on the back of child (a) Goal: CHILD is tattooed (b) HELPERS hold CHILD (by both arms) (c) ELDER obtains TOOLS (d) ELDER exhorts CROWD (on proper behaviour) (e) (general condition) Bad behaviour by CROWD '! Activity halts (f) ELDER checks if CHILD properly purified MACHINE TRANSLATION AND ARTIFICIAL INTELLIGENCE (g) (special condition) CHILD not purified activity halted (h) ELDER marks CHILD'S back (i) (method suggested) do for all CUT-MARKS and so on" (Charniak 1975)*

From the above frame, it is clear that one gets these three sentences that sum up the whole story. Here, a fundamental question arises that whether one needs this frame to understand the story? If one looks at these three sentences, for instance, "Little Kimathis' mother looked away accidentally, dropped her shoga, and touched his arm during the puberty rite. The crowd drew back in horror", one will get the whole idea of the story. If one analyses these sentences, one may get the idea that by some sense of the culture there may be some action prohibited such as a mother touching arm of the child, which as a result halted the puberty rites. In order to understand this, one can argue that does one need the above frame to infer this meaning from the story. Of course, the frame here is not needed,

and the story can be interpreted without help in the form of the frame. However, some might argue that there should be some predefined rule such as "human display alarm", which can be taken as the equivalent of "some human has performed a prohibited action".

The above example suggests that as one does understand the stories, it certainly is not due to any frame because one cannot have frames all the time for all situations. Therefore, one should have some simple principles to be followed to understand the meaning completely. For instance, those simpler rules can be just like "human show alarm" rule. Similarly, if one takes into consideration the "order Scampi" example, one must need some ideas, hints like "it is food that is more often ordered" rather than any frame. However, the frame advocates still believe that cues and inferences rules would be too many actually to be workable practically. However, this is so true for frames. The issues of accessibility and manipulation of frames make it more difficult to assess properly. Hence, the question remains unresolved and a mystery.

Many of the frame supporters do not urge to follow "plotline hypothesis" (PLH). In the strong sense of the term, it means, "you must possess structure X to understand". They argue that it is more useful to understand the text from the topmost level to down. According to Wilks, however, it is not possible to understand the PLH efficacy without the frame system procedures. As a matter of fact, this PLH is definitely based on some statistical hypothesis, which will help to assess how much a certain text does follow the frame models. Although, the argument that frames are not important and AI can play its role without it in MT is to a certain extent right, but another argument is that everyday knowledge can be misused and manipulated in AI systems. Therefore, one need not focus on the frame systems that try to ease out some of the problems faced by MT.

The purpose of preferential is to target or attract preferred things but if the need arises it will also not accept preferred ones. The current situation of machine translation is even the most updated software translation with high market share to still doing "just translation". Although, even thesaurus indeed have their own limitations when it comes to the translation of complicated texts such as proverbs, poetry, novels, sayings, etc., it is challenging for MT to translate these appropriately. Moreover, MT falls further short of human translation in terms of natural language grammar, rhetoric, and logic. Hence, semantic sense of the term is where the MT is lagging far behind the human translation.

Since its beginning in time, AI and MT did lack in their abilities of accurate and precise translation, but with modern advancements and technology, they have gradually shown tremendous improvements. Due to these reasons, many companies are now opting for the combination of both MT and human translations. According to the method, the computers do the initial first phase of translation of the text, and then human translations proofread it for omissions and errors. Thus, in this way, MT can be used as a help to human translation.

Lynch et al. (2017) describe three categories of AI software applications in education that are available today: a) personal tutors, b) intelligent support for collaborative learning, and c) intelligent virtual reality.

CONCLUSION

All of the above discussions can lead the researchers to the conclusion that though machine translation is the new most researched area and its future looks very promising, yet it still needs much time to reach a stage where human translation totally becomes extinct. This might be possible that with more and more technological advancements and innovations such gadgets are made that can be capable of knowing all the knowledge in the universe, but it is also a possibility that it may need 100 and 1000 more years to wait for. AI and ML indeed have a place in the education sector, more particularly to teach translation. That harmony of perfect translation is currently beyond the ability of MT and AI. AI is an evolving technology and can be constantly fine-tuned until it reaches a point of acceptable clinical accuracy tolerance. Perhaps in years to come it can capture the patient's voice perfectly. The study summarises that AI offers a spectacular teaching mythology, which reduces the error in the translation process. Learner translators should be given proper training and education, like an independent course in mas-

ter's degree program to upsurge the competence level of translation.

But, the key question then is whether technology should aim to replace teachers and instructors through automation, or whether technology should be used to empower not only teachers but also learners. Above all, who should control AI in education? Is it educators, students, computer scientists, or large corporations? These are indeed existential questions if AI does become immensely successful in reducing the costs of teaching and learning, but at what cost to humans? Fortunately, AI is not yet in a position to provide such a threat, but this will not always be the case. The tsunami is coming. AI still needs to learn natural language expressions and habits to replace human translation. For this purpose, such software and interfaces need to be made that are equipped with all these requirements to offer better translation services to the people in the future.

RECOMMENDATIONS

Machina Translation and Artificial Intelligence are considered as the most authentic technology nowadays. The implementation of AI and MT in the teaching of translations in educational institutions would not only provide the access to recent applications to translators, but also help them to work efficiently in their practical lives. In addition, as AI applications require some computer-aided skills, it is strongly recommended that translators should be taught current trends, focusing on ontologies (knowledge-based AI) and machine learning.

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