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Genre Analysis and Machine Translation: a comparison between Italian and Chinese trade fair promotional brochures

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Abstract

Il presente elaborato offre una panoramica sull'uso della traduzione automatica e del concetto di genere testuale nel quadro più generico della comunicazione interculturale d'impresa. Negli ultimi decenni, il campo della comunicazione interculturale d'impresa ha ricevuto una crescente attenzione dal momento che sempre più aziende interagiscono a livello globale, e in questo contesto la traduzione automatica si è posta come un'interessante soluzione per abbattere le barriere linguistiche e ridurre i tempi e i costi di traduzione. Allo stesso tempo, in ambito accademico, la ricerca si è occupata dello studio dei generi testuali, ma solo alcuni generi per poche combinazioni linguistiche sono stati analizzati in una prospettiva cross-culturale. La parte pratica presenta il confronto tra brochure per la promozione di fiere italiane e cinesi nel settore alimentare. Sulla base di una traduzione automatica e di una manuale della brochure di una fiera italiana, i due testi d'arrivo vengono infine confrontati. I risultati mostrano che la traduzione automatica costituisce di certo una risorsa per il traduttore. Allo stesso tempo però per sfruttare la traduzione automatica sono necessarie conoscenze legate alla comunità discorsiva e alle culture coinvolte. Nonostante il genere delle brochure promozionali mostri una certa sovrapposizione tra le due culture, è possibile infatti riscontrare differenze a livello di scopo e stile di comunicazione che, se trascurate, potrebbero inficiare il risultato finale.

Abstract

This thesis presents an overview of the use of machine translation and the concept of genre in the broader framework of intercultural business communication. Over the last decades increasing attention has been devoted to the field of intercultural business communication as more and more companies interact at the global level. In this context machine translation has emerged as a promising new solution to overcome language barriers and to reduce translation costs and turnaround time. At the same time, in the academic field, research has been concerned with the study of textual genres according to three main schools, while in a cross-cultural perspective only a limited number of genres in a few language pairs have been investigated. In the applied part of this work, Italian and Chinese promotional brochures of trade fairs in the food sector are compared in order to identify similarities and differences in communication purposes and persuasion practices. An Italian brochure is then translated both manually and automatically, and the two outputs are compared. Results show that knowledge of discourse practices and of cultural backgrounds are required in order to leverage MT. E ven though the genre of promotional brochures shows a degree of overlap across the two cultures under analysis, differences in terms of communication purposes and style can still be identified that would make communication problematic, if not adequately addressed.

Introduction

Over the last few decades advances in technology and Computational Linguistics have allowed machines to gain considerable ground in daily tasks such as translation. Since Warren Weaver's well-known memorandum in 1949, as well as through subsequent research in the field, Machine Translation (MT) has undergone a number of profound changes as far as MT system architectures and applications are concerned, from direct translation via bilingual dictionaries to the latest Neural Machine Translation (NMT) paradigm. The breakthroughs of recent years, however, are balanced by a series of challenges mainly concerning the lack of resources for MT system training: the fewer the parallel texts available, the lower the quality of the MT output. This aspect has turned out to be crucial in particular for a number of language pairs for which not many bilingual resources are available, and for which several solutions has been found thanks to the exploitation of comparable corpora.

At the same time, in the academic field scholars have been concerned with the study of genres. Over the years, the notion of genre has been conceptualized within three main theoretical approaches, namely Systemic Functional Linguistics, New Rhetoric School and English for Specific Purposes. Even though these approaches are based on different methodologies and operate within different educational frameworks, they all share the view that genres are communicative situations in which members belonging to a specific discipline community achieve communicative and social purposes. This perspective has therefore called for more emphasis not only on the linguistic features of texts, but also and above all on the social and cultural contexts in which genres, and therefore texts, are produced, used and interpreted.

In Chapter 1, I introduce the role of language skills and culture competence in the field of intercultural business communication; I also briefly describe the functioning of machine translation, focusing on the issue of low-resource language pairs and how this problem has been dealt with in the relevant literature. In Chapter 2, I discuss the notion of genre and the three main research traditions in which genres have been studied; furthermore, I sketch a research framework for the analysis of promotional brochures and present the structure of Italian and Chinese brochures of trade fairs in the food-sector. In Chapter 3, I describe the methodology for the creation of the resources employed in the computer-assisted translation and the comparable corpora used for the text analysis. In Chapter 4, I present a cross-cultural analysis of the Italian and Chinese brochures collected with a move-and-step approach, while also drawing on other dimensions such as Hofstede's cultural dimensions theory and crosscultural differences in persuasion practices. Finally, I discuss the results of the analysis in depth and I present future research perspectives in this field.

Chapter 1

Language and Machine Translation for Business communication

1.1 Language skills and cultural competence in the international arena

The profound impact that language skills and cultural competence have on enterprises in areas such as international marketing, international management, internationalization, cross-cultural communication, thus "the abilities of companies to function in the international arena" (Marschan et al., 1997: 591), has been well described by a number of studies (Marschan et al., 1997; Marschan et al., 2001; Aiken and Ghosh, 2009; Hagen, 2008). Global expansion ultimately requires companies to deal with multilingual environments and extensive research has shown that language familiarity is crucial for smaller companies in the early stages of internationalization and expansion towards a foreign market (Welch et al., 2001; Wiedersheim-Paul, Olson and Welch, 1978). Language, therefore, cannot be considered as a mere "add-on-factor"; rather it needs to function as a single entity and more strategic value needs to be placed on it (Welch et al., 2001). In this work, the importance of language in business environments is explained through the concept of psychic distance (Johanson and Wiedersheim-Paul, 1975, cited in Welch et al., 2001). This term was firstly used by researchers to refer to all those factors "preventing or disturbing the flow of information between the firm's home country and its target foreign market" (Johanson and Wiedersheim-Paul, 1975:307-308) and that generate uncertainty about international expansion (Marschan et al., 1999). Together with culture, political systems, education and level of development, language has also been "bundled into the psychic distance package" (Welch et al., 2001: 194), suggesting that language-wise differences are perceived as adding to risk and uncertainty as well.

As suggested by Langhoff (1997), "coping with cultural heterogeneity across different international markets" (159) is one of the abilities that enterprises addressing foreign markets need to possess. Correspondingly, Hagen (2008) suggests that companies' survival in the international arena largely depends on "how well they understand and treat their customers" and "whether they can operate successfully in the customer's culture of expectation". The idea that enterprises need to address language gaps in order to improve cross-border trade and to function at a global level is further confirmed by several studies (e.g., ELAN Study,

2006 and British Chamber of Commerce, 2004). The ELAN Study was undertaken in order to analyze how 2000 companies in 29 countries across Europe were managing their language skills in reference to trading prospects and business performance. The results clearly show that breaking down language barriers can become a "critical asset" (Dhir and Gòkè-Paríolá, 2002) and provide enterprises with substantial benefits, in light of the fact that lack of language and/or cultural skills may result in a loss of significant amounts of business, and that the better companies manage their language skills, the more successful their performance in the international market is likely to be.

Furthermore, four elements of language management at the company level have been identified by the ELAN Study: 1) Developing language strategy; 2) Hiring native speakers; 3) Recruiting staff with language skills; 4) Hiring translators/interpreters. It has been hypothesized that a company with all these four features may increase export sale proportion by 44.5 percentage points (Hagen, 2008: 28). Conversely, when enterprises do without such language investments, they are more likely to lose trade opportunities because of three main reasons: lack of staff with language skills; lack of follow-up; lack of confidence to deal with foreign customers. Another critical finding of the ELAN report is the evidence that, at the time of the analysis, 11-15% of SMEs in Italy, Spain, Bulgaria, Sweden and Norway appeared to be losing trade due to the lack of language skills.

Similar to the ELAN Study is the British Chambers of Commerce Language Survey (BCC, 2004), which found a direct correlation between companies' annual turnover and the importance that their export managers put on language skills and cultural competence. One final interesting aspect of these studies is that comments from participants from different countries were collected, thus offering personal insights into the importance of language and cultural skills in terms of technical support for a product, understanding of cultural differences, improved written and verbal business communication, better information flow, and increased export volume. Two such comments, as reported in Hagen (2004: 31), are:

Improved communication (written and verbal) in foreign languages and a better understanding of cultural differences will have an important impact on doing business abroad successfully (Belgium)

It will lead to an increased volume of the export activity and also to a more professional and smooth business communication within international business partnerships (Romania)

1.1.1 Machine Translation (MT) and Machine Interpreting (MI) in companies

The application of MT and MI technology in business and company settings is not a recent development. As explained in Aiken and Ghosh (2009), over the last decades there have been several successful attempts at implementing MT in Electronic Meeting Systems (EMS) and Group Support Systems (GSS), and different technologies have been developed for this very purpose. Especially for multinational companies, "there is a tremendous need for cheap, accurate, and readily-available translation services" (ibid., 916), which suggests that machine translation is a potential solution, also considering that using a certain level of computer assistance in this field has been general practice for some time already (Champollion, 2003). Applications such as Helpmate (Curran, 2002), MeGlobe (Online Tech Tips, 2009), Chat Translator (SDL, 2009), and Polyglot (Aiken and Vanjani, 2009) enable real-time automatic translation of comments written in different languages, allowing multilingual communication among users with different language backgrounds. Polyglot and its newer version developed in 2008 are able to translate between all the languages supported by Google Translate (Aiken and Ghosh, 2009), while the translation tool introduced by the website multicity.com was powered by SYSTRAN (Yang and Lange, 1988).

Even though such technology is very useful in dealing with multilingual communication in business environments, according to Feely and Harzing (2003) MT and MI technology cannot be employed for "mainstream applications", and are therefore more appropriate for "development laboratories and for small-scale pilot projects" (ibid: 49). This is especially the case in settings where the inclusion of a translator or an interpreter in a transaction may have quality and time implications as well as several difficulties regarding sensitive or confidential material (Aiken and Ghosh, 2009).

1.2 Machine Translation and parallel data

When it comes to Machine Translation and MT system training, one of the major obstacles is the lack of parallel data. Parallel texts, also known as bitexts, are texts that are mutual translations and they represent a critical resource in machine translation as well as many other Natural Language Processing tasks such as automatic lexical acquisition (Church and Gale, 1991; Melamed, 1997), cross-language information retrieval (David and Dunning, 1995; Oard 1998) and annotation projection (Diab and Resnik 2002; Yarowsky and Ngai 2001).

Considering that most of the languages in the world are low-resource ones (Rapp, Sharoff and Zweigenbaum, 2016), the absence of parallel data concerns a great number of language pairs and severely affects the output of many MT systems. As of now, readily available parallel corpora of reasonable sizes only exist for few language pairs. A further problem concerns the quality of the available parallel data for training purposes. As argued by (Resnik and Smith, 2003) and (Munteanu and Marcu, 2005), most of the available parallel corpora tend to be unbalanced and do not represent quality training data for several reasons:

- they only exist in specialized forms such as proceedings, religious texts, localized versions of software manuals, etc.;
- they mostly represent governmental or newswire-style domains;
- some come with fees or licensing restrictions.

Furthermore, the creation of parallel corpora, in particular for low-resource languages, is a time-consuming and complex task and most of the times professional translators do not possess the required skills (Stein, 2013). When no or little parallel data are available or when they represent unbalanced training material, it is difficult to conduct quantitative research, and in those cases where available parallel data do not concern the domain or field of interest, the MT system may yield no results at all or such data may even have a negative effect on the overall translation output (Karakanta et al., 2018; Resnik and Smith, 2003). As argued by many scholars over the last decades, data-driven approaches have proved crucial in MT system development. However, there are many cases in which such methods cannot be applied due to the unavailability of the abovementioned parallel data (Skadina et al., 2012). This holds true especially for low-resource language pairs and narrow domains, the most common drawbacks of MT systems being low accuracy and/or low coverage (Irvine and Callison-Burch, 2013).

In order to deal with the lack of parallel data, several different approaches have been developed. One of the most widely used method is the exploitation of "a much more available and diverse resource" (Munteanu and Marcu, 2005: 477): comparable non-parallel corpora for parallel lexicon extraction. As stated by Skadina et al. (2013), research on machine translation is currently much more concerned with the use of parallel rather than comparable corpora, and methods on how to extract and implement non-parallel data extracted from non-comparable corpora are only now starting to be studied in depth.

Several scholars have attempted to give a definition of the concept of comparable corpus, and to date different taxonomies exist on the basis of cross-document and cross-language similarities. According to the definition given by Maia (2003), a comparable corpus is made by texts in multiple languages, which are similar in terms of form and content as well as structure and other characteristics, such as field, time, dialect, register, etc. Skadina et al. (2010) suggest a structured four-class taxonomy across parallel and comparable texts:

- parallel texts are accurate translations of each other;
- strongly comparable texts report the same event or describe the same subject;
- weakly comparable texts concern the same domain or genre but describe different events;
- non-comparable texts are usually drawn at random from collections of texts in two or more languages.

Regardless of their classification, in comparison with parallel corpora, comparable corpora are potentially easier to build for several languages and for many specific areas, but they are only able to improve MT system performance when they contain a great amount of parallel textual segments (Skadina et al., 2010). In the absence of parallel training data, monolingual comparable in-domain data can still be retrieved from many accurate resources on the Web, such as online news, for each language and then implemented in order to improve the performance of MT systems (Munteanu and Marcu, 2005).

The process of extracting monolingual data and compiling comparable corpora for a given language pair consists in downloading separate documents for each language; matching documents are subsequently identified through dedicated algorithms that compare certain linguistic and non-linguistic features of the texts; candidate text pairs are aligned at sentence, document and corpus level and extraction and evaluation method are then applied in order to extract parallel lexicons or terminology (Ramesh and Sankaranarayanan, 2018). Research shows that parallel data extracted from comparable corpora improves MT system performance (Hewavitharana and Vogel, 2008), and that in general low-resource language pairs and domains can benefit from the application of comparable corpora (Munteanu and Marcu, 2005; Abdul-Rauf and Schwenk, 2009 and 2011). Furthermore, even weakly comparable corpora can contain useful translation equivalences for named entities or terminological units (Skadina et al, 2012).

1.2.1 Previous research on the use of comparable corpora

The compilation of comparable corpora in order to alleviate the lack of parallel corpora has so far focused on a rich source of comparable documents: Wikipedia. In Ramesh and Sankaranarayanan, (2018), Wikipedia is regarded as a comparable corpus itself since it is a collection of topic-aligned multilingual documents, but not aligned at document level. Due to its encyclopedic nature (Barrón-Cedeño et al., 2015), Wikipedia appears to be an excellent resource of comparable documents and thus parallel lexicon for two main reasons:

- 1. the articles on Wikipedia are connected by inter-language links, which means that it is possible to search through articles on the same topic, but written in different languages (Skadina et al., 2012);
- Wikipedia shows a high taxonomy of categories for its content, which suggests that the most straightforward way to extract bilingual lexicons from this source is extracting the titles of the articles first (Karakanta et al., 2018; Barrón-Cedeño et al., 2015; Skadina et al., 2012).

Even though Filatova (2009) found that Wikipedia articles may not be fully comparable and in some cases even contradictory, Wikipedia still represents one of the best sources for the extraction of bilingual data and a viable alternative to parallel text; furthermore, with its 307 languages as of November 2019, even small languages have their share of content in other languages and can have strong presence on Wikipedia (Karakanta et al., 2018).

This is the reason why over the last years a number of studies have been conducted on the use of comparable corpora extracted from Wikipedia. Several tools to extract corpora from Wikipedia have been developed over the years, such as aLinguatools, CatScan2, the Accurat toolkit, and CorpusPedia. Another extraction tool is STRAND (Structural Translation Recognition, Acquiring Natural Data) (Resnik and Smith, 2003). As suggested by the full name, STRAND is an architecture for structural translation recognition that identifies web pages that are mutual translations xxx. It represents an interesting recognition method that exploits several extra-linguistic text features, such as structure and document length, on the assumption that when adding content in a different language on Wikipedia, authors tend to follow the same structure as for other languages. Similar methods have been used by Chen and Nie (2000) with a software called Parallel Text Miner (PTMiner). PTMiner identifies pages in a given language containing links to pages in the other language of interest. Finally, BITS (Ma and Liberman, 1999) filters out bad cross-language pairs with the use of a bilingual dictionary, thus computing a similarity score based directly on the content. Apart from an amount of monolingual data required before the use, all these systems show an interesting independence from linguistic features and their functions can therefore be easily adjusted to other language pairs (Resnik and Smith, 2003).

In Barrón-Cedeño et al. (2015) pairs of language-related articles are firstly identified through Wikipedia inter-language links; the extracted articles are then compared in terms of sentence-level similarity, and those pairs with a similarity higher than a defined threshold are extracted as parallel sentences. The result of this process is a noisy parallel corpus to which further similarity threshold need to be applied. In their study the obtained corpus was implemented as training data in an SMT system in order to assess the quality of the corpus itself, demonstrating that using such data improves the overall performance of the MT system on in-domain data.

Liu et al. (2018) found that despite being populous languages, there was scarce parallel material available for the language pair Chinese-Portuguese. Therefore, they applied a similar method on bilingual data from the Macao government website: several pages were crawled and candidate pairs were generated through URL-based alignment, taking advantage of the different language code in the URL; pairs were then selected on the basis of paragraph/sentence number when identical, otherwise after the application of a translation-based alignment algorithm. Finally, other methods of compiling comparable corpora from Wikipedia and extracting bilingual lexicon include the implementation of a maximum entropy classifier (Munteanu and Marcu, 2005) and word relation matrixes (Fung and McKeown, 1997).

1.2.2 Neural Machine Translation: a new MT paradigm

For a very long time Phrase-Based Machine Translation (PBMT) within the framework of Statistical Machine Translation (SMT) has been considered the state-of-theart paradigm for MT systems. However, over the last few years a new approach to MT, namely Neural Machine Translation (NMT), has been developed (Kalchbrenner, 2013; Sutskever et al., 2014). Even though there is still great discrepancy between expectations and reality regarding the accomplishments and the applications of NMT (Castilho et al., 2017) as well as insufficient evidence of its usefulness in real scenarios, NMT is now starting to displace previous MT approaches since its implementation is no longer "too computationally costly and resource demanding" (Bentivogli et al., 2016; Forcada, 2017; Levin et al., 2017).

NMT systems are nowadays used in several kinds of settings and for different purposes, such as product descriptions, user reviews, comments in the field of e-commerce as well as the patent domain, in order to render information "as widely accessible as possible, regardless of the customers' native language or country of origin" (Castilho et al., 2017). As regards the results achieved by NMT systems in translation quality evaluation, NMT appears to be a viable alternative to other MT paradigms, but drawbacks can still be identified:

- Depending on different domains and language pairs (Castilho et al., 2017);
- When human and automatic evaluation metrics are applied (ibid.);
- As the length of source sentences increases (Cho et al., 2014).

1.2.3 How does NMT work?

NMT has been described as "a new breed of corpus-based machine translation" (Forcada, 2017: 292). Such a definition clearly suggests that NMT models are similar to STM models in that they are all trained on huge amounts of aligned bilingual sentences and translation units. However, the new NMT paradigm presents a different computational approach, namely neural networks, which are used to build an end-to-end encoder-decoder model: a variable-length input sentence is firstly passed through the encoder in order to obtain a fixed-length vector representation; this vector representation is then analyzed by the decoder and finally converted into a variable-length target translation (Cho et al., 2014). In other words, neural models are trained to maximize the probability of obtaining the correct translation for a given input sentence (Castilho et al., 2017).

As suggested by its name, NMT works in a similar way as the human brain. NMT neural networks are composed of several artificial units that resemble human neurons: their activation depends on the stimuli received by other neurons and the strength of the connections between the neural networks themselves. Since the vector representations computed by the NMT model represent values of neuron activation, training an NMT model means determining the strength of such connections through which stimuli are passed in order to obtain an output that is as similar as possible to the gold-standard of the training data sets used. For this purpose, dedicated algorithms are constantly trained to correct connection strength in order to reduce the loss function, which indicates how far the output of the NMT model is from the gold-standard. The majority of NMT engines are built and trained in order to function as a text completion device, very similar to the ones used by smartphone keyboards (Forcada, 2017). This means that after the input sentence has been analyzed by the encoder and each input word has been transformed into a vector representation, the decoder provides the word that is most likely to be a continuation of what has been produced up to that point. This process occurs for each position of the target sentence and for every possible word in the target vocabulary.

Among the main differences between STM and NTM models are fluency and grammatical correctness of the target output and can be explained by looking at the way in which input sentences are processed. Phrase-based STM models tend to split input sentences into chunks of words or phrases that are translated separately: as shown by Läubli¹, if an STM system is based on a 3-gram language model, it will assess fluency by looking at chunks of 3 words. The consequence of such an approach is that subsequences usually show a high degree of fluency if considered alone, but the whole sentence does not. On the other hand, neural networks allow NMT engines to learn vectoral representation (called word embeddings) for each single word of both the source and language, map semantically similar words close to each other and learn complex language relationships. In this process the input sentence is analyzed as a whole and pieces of information are aggregated by looking at the surrounding context: this means that it is possible to condition the probability of target words on the basis of all the words previously generated. As explained in ..., given the input sentence "I arrived at the bank after crossing the...", the system is able to decide whether the word "bank" refers to the bank of a river or to a financial institution only after knowing if the sentence ends in "...road." or "...river". This way of processing input sentences allows NMT engines to assess fluency on the basis of the whole sentence rather than just n-grams, thus "transferring information and context" and not just "translating words"².

The encoder-decoder architecture, also known as sequence-to-sequence or seq2seq, is nowadays the most typical NMT design used in real-world applications. However, it is often implemented with a device called attention in order to improve NMT system performance when translating longer sentences. As argued by (Bahdanau et al., 2014: 1),

¹ Retrieved from: <u>https://slator.com/technology/3-reasons-why-neural-machine-translation-is-a-breakthrough/</u> [Last visited: 26/02/2020]

² Retrieved from: <u>https://www.memsource.com/blog/2017/09/19/neural-machine-translation-the-rising-star/</u> [Last visited: 26/02/2020]

A potential issue with this encoder–decoder approach is that a neural network needs to be able to compress all the necessary information of a source sentence into a fixedlength vector. This may make it difficult for the neural network to cope with long sentences, especially those that are longer than the sentences in the training corpus.

The attention mechanism differs from the traditional encoder-decoder approach in that the input sentence is not totally encoded into a single fixed-length vector. Conversely, the input sentence is divided into a series of vectors, some of which are given more weight than others since they are contextually and semantically more important. This way of processing input sentences allows NMT engines to not have to squeeze all the information into a fixedlength vector, thus yielding better translation results when coping with longer sentences (or generally sentences that are longer that those in the corpora used).

Apart from the recurrent encoder-decoder architecture, a more recent approach to NMT is the convolutional architecture, which exploits the use of Convolutional Neural Networks (CNNs) (Gehring et al., 2017). CNNs differ from traditional RNNs in that the encoding of the whole sentence is not produced by "ingesting the embeddings of source words one by one" but rather by employing a word-window: in the decoding step vectoral representations are produced by looking at words to the left and to the right of the source word currently being analyzed. Even though RNN-based architectures are currently top choice for NMT and have outperformed CNN-based models in several language translation tasks, there is evidence that CNNs are computationally stronger than RNNs since they take full advantage of some computational designs of NMT engines, as demonstrated by the Facebook Artificial Intelligence Research (FAIR) group³.

Research in the fields of Language Modelling (LM) and Deep Learning (DL) is currently focused on developing other extensions and alternatives for NMT models in order to cope with the drawbacks of this new MT paradigm. Recent developments include continuous bag-of-words embeddings (Mikolov et al, 2013a), skip-gram embeddings (Mikolov et al., 2013b) and systems based solely on attention mechanisms (Vaswani et al., 2017).

1.2.4 Google's zero-shot translation

Within the GNMT neural framework developed by the Google Artificial Intelligence group, one interesting case that is worthy of a special mention is that of *transfer learning*

³ Retrieved from: <u>https://engineering.fb.com/ml-applications/a-novel-approach-to-neural-machine-translation/</u> [Last visited: 26/02/2020]

and *zero-shot translation*. Neural engines are typically built for single language pairs, which means that the units in the encoder-decoder architecture are trained for specific languages: this process inevitably leads to a high computational cost as a different system for each language pairs needs to be maintained. When dealing with multiple language pairs, therefore, changes need to be made to the basic NMT architecture.

In Johnson et al. (2017), however, the authors addressed the challenge of multilingual translation within the same model by inserting an artificial token at the beginning of the input sentence in order to specify the required target language. The main advantages of this implementation are simplicity, since no changes are made to the engine architecture, as well as improvements for low-resource language pairs, in that in such a multilingual model, parameters are shared by all the language pairs. The modified system shares all the characteristics with the GNMT model previously presented in (Wu et al., 2016), meaning that the encoder, the decoder and the attention mechanism stay the same.

Google AI's multilingual method has been applied to several WMT14⁴ translation tasks in three specific translation scenarios, namely many to one, one to many, and many to many. Except for a few settings, their system achieves considerable gains based on BLEU scores, providing the benefit of "better training efficiency, smaller number of models, and easier productionization" (Johnson et al., 2017: 345).

Apart from architecture simplicity and low-resource language pair improvements, however, one startling benefit deriving from this subtle modification is that the system learns the ability to perform zero-shot translation, namely translation between two languages for which explicit parallel data have not been provided to the system during training. By looking at the representations of internal embeddings computed by the network, the authors found evidence that in different situations the model learns a level of shared representation regardless of language, and thus that a sort of transfer learning occurs in the system. As described in (ibid.), when training a multilingual system with Japanese≓English and Korean≓English data (and therefore with the same parameters for all four different language pairs), the system is able to transfer its knowledge among these pairs by representing all the languages in a sort of interlingua where semantically similar elements are grouped together in the vectoral space, as shown in Figure 1.

⁴ Retrieved from: <u>http://www.statmt.org/wmt14/</u> [Last visited: 02/03/2020]

In general, despite the great hype generated by NMT, further research needs to be carried out in order to understand the features of this new MT approach and find appropriate ways of integrating the neural paradigm with the current SMT systems (Cho et al., 2014).

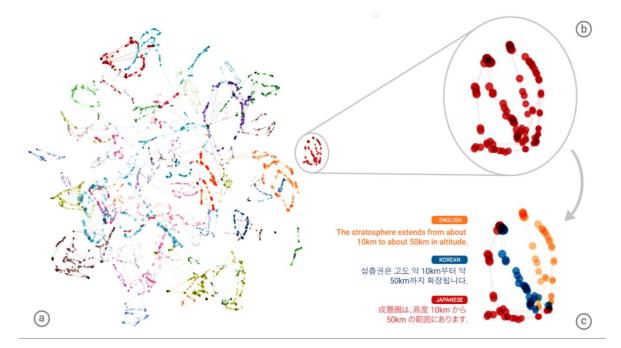


Figure 1 (a) is a view of the embeddings generated by the model trained on Japanese ZEnglish andKorean ZEnglish examples; (b) is a zoomed view of one of the clusters; (c) shows the same sentence in threedifferent languages. This figure gives a clear idea of the fact that the system learns the semantics of the sentenceratherthanperformingphrase-to-phrasetranslation.Source:Google AI Blog (2020), Zero-Shot Translation with Google's Multilingual Neural MachineTranslation System. Retrieved from https://ai.googleblog.com/2016/11/zero-shot-translation-with-googles.html

Chapter 2

Genre analysis and trade fair brochures

2.1 Literature review

Over the last decades the importance accorded to intercultural business communication has grown, as more and more countries and companies are doing business at a global level (Zhu, 2000; Sobhie, 2003). In the academic field, research has focused on the notion of genre in order to understand differences in communication styles (Zhu, 2000) and "how individuals use language to interpret and respond to communicative situation" (Martín, 2003: 153).

The term "genre" was first used for some types of texts in literary studies, while nowadays it is usually understood according to Swales' definition as a "distinctive category of discourse of any type, spoken or written, with or without literary aspiration" (Swales, 1990: 33). As (Martín, 2003) points out, the first studies on the notion of genre in linguistics were based on quantitative and statistical analyses of linguistic features and were aimed at identifying shared characteristics across types of texts (Grabe, 1987; Biber, 1998); afterwards, research was extended to the socio-pragmatic aspects related to the social context in which texts are used and interpreted. As argued by Bhatia,

communication is not simply a matter of putting words together in a grammatically correct and rhetorically coherent textual form, but more importantly, it is also a matter of having a desired impact on the members of a specific discourse community, and of recognizing conventions they follow in their everyday negotiation and dissemination of meaning in professional contexts. (Bhatia, 2015: 9)

From this perspective, the notion of genre appears therefore to be strictly related to the concept of discourse community. As defined by (Swales, 1990), a discourse community is a community in which there are specific communicative tasks that are crucial to the functioning of the group. This idea is supported by (Bhatia, 2002), who considers genres as "conventionalized communicative events embedded within disciplinary or professional practices" (23). Genre analysis has therefore focused on the investigation of not only the linguistic features of texts, but also the discursive and socio-cultural practices of professional and workplace communities (Swales, 1990; Bhatia 1993).

According to the classification proposed in (Hyon, 1996), genre studies can be linked to three main schools: Systemic Functional Linguistics (SFL), the North American New Rhetoric School (NRS) and English for Specific Purposes (ESP). As suggested above, all these approaches agree on the fact that genres are cultural objects closely related to class membership, and therefore focus on the analysis of conventionalized forms while take into account the social contexts of use and creation of texts; the major difference, however, lies in whether the emphasis is on context or text, thus whether the analysis involves how texts are structured to reflect and function in professional communities (Martín, 2003). (Bhatia, 2015) provides a clear distinction between text and genre analysis, claiming that text analysis focuses on the textual product itself and does not take into account the receiver's background knowledge and interpretation; genre analysis, instead, "incorporates context in a broader sense" and investigates the way a text "is likely to be interpreted, used and exploited" (ibid: 16). Even though this view appears to be shared by the three approaches to genre studies, below is a brief overview of how genre has been conceptualized in SFL, NRS and ESP research traditions.

2.1.1 Systemic Functional Linguistics (SFL)

As pointed out in (Hyon, 1996), the Australian or Sydney school of Systemic Functional Linguistics developed at the University of Sidney in the same period as ESP and New Rhetoric studies, but it has since evolved independently. SFL analysis is mainly based on Halliday's theory of systemic functional linguistics and nowadays the notion of genre within this approach is associated with the definitions given by (Martin and Rose, 2007): genres are "recurrent configurations of meanings [...] that [...] enact the social practices of a given culture" (6) and "staged, goal-oriented social process[es]" (8). As further argued by the authors (ibid.: 8), genres are "social because we participate in genres with other people; goal-oriented because we use genres to get things done; staged because it usually takes us a few steps to reach our goals".

Within SFL theory, research has mainly focused on the identification of the relation between form and function and on the analysis of formal features of texts in their social contexts. This follows from Halliday's concept of language choice and the idea that "the internal organization of language is not arbitrary but embodies a positive reflection of the functions that language has evolved to serve in the real life of social man" (Halliday, 1976: 26). In particular, the language model employed within the SFL approach suggests a clear stratification of context, first as register, which is made up of three variables, namely field (the activity going on), tenor (the relationships between participants) and mode (the channel of communication), and then as genre (Halliday, 1978; Halliday and Hasan, 1989). Genres are therefore seen as abstracted contexts that constitute a culture and that are realized through register variables, which are in turn realized through patterns of choices in language. As pointed out by (Martín, 2003), the contribution of the SFL approach to genre studies is mainly to be found in the dissociation of genre from register and style. This distinction has had major implications in the way genre has been investigated by SFL scholars: not only does the conceptualization of genre in the ESP and NR schools, in fact, not take into account how texts are shaped, it also does not provide a clear distinction between genre and register. In SFL terms, conversely, genres are treated as the unfolding of communicative situations, which means that different genres may be enacted by different modes of interaction realized in language. An example of this can be found in (Flowerdew, 2012: 139), where register is defined as "a type of language associated with a particular field of activity or profession". Yet a clear line is drawn, for instance, between the genre of lectures and all the different registers that may be realized in it, thus accounting for all the possible professional communities lectures may be addressed to.

As far as the educational framework of this approach is concerned, systemic functional linguists "acknowledge the importance of teaching the social functions and contexts of texts" (Hyon, 1996: 700). Genre-based teaching in the SFL perspective, therefore, has mainly had the aim of helping students "participate effectively in the school curriculum and the broader community" (Callaghan, 1991: 72) by providing them with the necessary knowledge to "recognize these features [...] in the texts that they read and use them in the texts that they write" (Hyon, 1996: 701).

2.1.2 The New Rhetoric School approach

The roots of the New Rhetoric School, also known as the North American School, can be traced back to some findings in composition studies during the 1970s, namely the focus on the role of the writer and "the theoretic shift towards the social" (Artemeva, 2004: 5). The New Rhetoric approach mainly draws on Miller's reconceptualization of genre as social action (Miller, 1984) and on the assumption that "particular discourses are socially motivated, generated, and constrained" (Coe & Freedman, 1998: 137). As argued by (Miller, 1984: 153), within this perspective "genre [...] becomes more than a formal entity; it becomes pragmatic, fully rhetorical, a point of connection between intention and effect, an aspect of social action". Studies in this research tradition include Myers' analysis of the writing of professional biologists (Myers, 1990) and Bazerman's work on experimental articles (Bazerman, 1988).

The main difference between the New Rhetoric School and the two other approaches to genre studies is that in the NR research tradition the emphasis is on the social function of texts. NR researchers, indeed, do not focus on formal features of texts and are more concerned with the social aspects of genres. This is why the methodological orientation of NR analysis has tended to be "ethnographic" rather than "text analytic" (Martín, 2003: 160), in an attempt to investigate the attitudes, the values and the beliefs of the communities of text users that genres imply and construct (Hyland, 2002). The idea that NRS has added a new fundamental dimension to genre studies is supported by the fact that, as argued by (Hank, 1987: 670), there are historical conditions under which genres come to exist as well as social values attached to them in given contexts, and that a definition of genre must focus on the action it is used to accomplish rather than its form or substance (Miller, 1984). Another distinguishing feature of the NR approach is the dynamic vision of the concept of genre: in the NR approach the dynamic quality of genres is emphasized (Berkenkotter and Huckin, 1995) since, as pointed out in Freedman and Medway,

If genres are understood as typified responses to social contexts, and if such contexts are inevitably fluid and dynamic, what sense can it make to explicate features of historical genres (and all genres are historical) as a way of teaching and learning? (Freedman and Medway, 1994: 10)

In terms of genre-based pedagogy, NR scholars have typically focused on L1 teaching, compositional studies, professional writing and rhetoric (Hyon, 1996), and in particular they have been more concerned with teaching the roles of texts and helping university students and professionals understand the social functions of genres (Yunick, 1997). (Martín, 2003) explains that the New Rhetoric approach has so far lacked explicit educational frameworks, to the extent that, as Hyland (2002) points out, the classroom has been seen as an "inauthentic environment lacking the conditions for complex negotiation and multiple audiences" (114). As argued by Bazerman, genre-based pedagogy should not provide students with "the formal trappings of the genres they need to work in" but should improve their understanding of the life embodied in texts (Bazerman, 1988: 320), and that knowledge of the social contexts that surround texts is fundamental in distinguishing between successful and unsuccessful rhetoric

practices. Lastly, (Freedman and Medway, 1994) also point out the need to socialize with the members of a particular disciplinary community in order to fully understand how genres are used in their social contexts and claim that teaching could even be an obstacle in such a scenario.

2.1.3 The English for Specific Purposes approach

The term genre was first introduced in the area of English for Specific Purposes (ESP) in 1981 by Tarone et al. (1981) in their study on the use of the passive voice in two astrophysics journal papers. Research in this tradition is based on Swales' definition of genres as "a class of communicative events, characterized both by their communicative purposes and by various patterns of structure, style, content and intended audience" (Swales, 1990: 58), and it mainly draws on the findings of Swales and Bhatia in their study of academic, business and legal genres (Swales, 1981; Bhatia, 1993). Nowadays the ESP approach has expanded to include areas such as English for occupational purposes, English for vocational purposes, English for science and technology, English for medical purposes, English for business purposes and English for community membership (Belcher, 2009, 2013).

ESP genre analysis has mainly focused on the teaching of English to non-English-speaking background individuals in academic and professional settings (Martín, 2003). In particular, researchers from this school emphasize the importance of teaching genre structures and grammatical features in order to "offer pedagogically useful information for helping students control the organizational and stylistic features of these texts" (Hyon, 1996: 698) and participate better in their work, study and everyday life (Belcher, 2006), and are therefore less concerned with the specialized functions of texts and their social contexts. This approach, and in particular its product-based view of learning, has been criticized given its focus on fixed patterns and formulae. As argued by (Flowerdew, 1993), models of genres should not be seen as fixed patterns, but as prototypes that allow for individual variation, and that genrebased teaching should focus on learning about genres. This idea is supported by (Johns, 2008), who emphasizes the concepts of genre awareness and acquisition, claiming that genrebased pedagogical frameworks should provide students with strategies for responding to new and different tasks and situation (genre awareness), and at the same time students need to acquire the genres that are important to them (genre acquisition).

One model that has had a major impact on genre analysis in the ESP research tradition is the CARS (Create A Research Space) model, derived from Swales' analysis of academic research article introductions of Anglo-American writers (Swales, 1990; Swales and Feak, 1994). The CARS model is a move-and-step approach that aims at analyzing communicative purposes "in a staged or sequenced manner" (Flowerdew, 2012: 146). In particular, in order to explain and describe the organizational pattern in the writing of RA introductions, Swales identified a specific structure made up of three moves, which are "discoursal or rhetorical unit[s] that performs a coherent communicative function in a written or spoken discourse" (Swales, 2004: 228-229) and in turn consist of sub-units or steps, which are the concrete linguistic realizations of moves:

- 1. Establishing a territory
 - claiming centrality
 - making topic generalizations
 - reviewing items of previous research
- 2. Establishing a niche
 - counter-claiming
 - indicating a gap
 - question-raising
 - continuing a tradition
- 3. Occupying the niche
 - outlining purposes
 - announcing present research
 - indicating article structure

The CARS model has been applied to the analysis of the introduction section of other genres, such as theses and dissertations (Bunton, 2002; Hyland, 2009; Joseph et al., 2014), among many other genres.

2.1.4 Cross-cultural genre studies

Regarding cross-cultural genre studies, the first concern that needs to be dealt with is what kinds of texts can be said to belong to the same genre, in particular across different cultures. As reported in (Shaw et al., 2004), according to Engberg and Bhatia texts that belong to the same genre are similar on three levels:

- 1. They have shared linguistic features, that is similar restrictions on the parts of the overall linguistic system that can be used;
- 2. They are produced by a particular social group of people with specific skills and training;
- 3. They have shared psychological features, being written so that they correspond to the value system and thought process of the field they belong to.

Similarly, according to (Swales, 1990),

A genre comprises a class of communicative events, the members of which share some set of communicative purposes. These purposes are recognized by the expert members of the parent discourse community, and thereby constitute the rationale for the genre. This rationale shapes the schematic structure of the discourse and influences and constrains choice of content and style [...] In addition to purpose, exemplars of genre exhibit various patterns of similarity in terms of structure, style, content and intended audience. (58)

From a cross-cultural perspective, however, although many genres are shared across different societies, they still differ in terms of "linguistic resources and varieties available to [societies]" (Shaw et al, 2004: 386). Even though cross-cultural comparative study has not been a major research focus in genre analysis (Zhu, 2013), several studies have been conducted on different textual genres from a cross-cultural perspective (Zhu, 1997; Aukrust and Snow, 1998; Blum-Kulka, 1993; Salager-Meyer et al., 2003). Three further aspects that need to be highlighted as strictly relevant to the genre analysis conducted in the present thesis are Hofstede's cultural dimensions theory, differences between Chinese and Western rhetoric practices and Halliday and Hasan's notions of cohesion and reference.

Hofstede's cultural dimension model derives from his first study of an IBM database concerning feelings and values of people across more than 50 countries (Hofstede, 1980). It is a factor-based analysis model built according to five criteria, as described in (Hofstede, 2011):

- 1. Power Distance, related to the different solutions to the basic problem of human inequality;
- 2. Uncertainty Avoidance, related to the level of stress in a society in the face of an unknown future;

- Individualism versus Collectivism, related to the integration of individuals into primary groups;
- 4. Masculinity versus Femininity, related to the division of emotional roles between women and men;
- Long Term versus Short Term Orientation, related to the choice of focus for people's efforts: the future or the present and past;
- 6. Indulgence versus Restraint, related to the gratification versus control of basic human desires related to enjoying life.

Hofstede's conceptualization of differences across nations and cultures has been criticized on several grounds. In particular, in his book *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*, (Hofstede, 2001: 73) identifies five "standard criticisms" to his approach:

- 1. Surveys are not a suitable way of measuring cultural differences;
- 2. Nations are not the best units for studying cultures;
- 3. A study of the subsidiaries of one company cannot provide information about entire national cultures;
- 4. The IBM data are old and therefore obsolete;
- 5. Four or five dimensions are not enough.

From a deeper, cross-cultural perspective, (Yeh, 1988) points out that the value scales suggested by Hofstede may be interpreted differently by Asian citizens or may be different in terms of values in the first place. Similarly, (Fang, 2003) emphasizes that different societies may hold different values, arguing that Hofstede's fifth dimension has an underlying philosophical flaw as it is not in accordance with the Chinese principle of yin and yang. Despite these criticisms, Hofstede's work is a widely-recognized framework in the field of cross-cultural analysis as well as a comprehensive study of cultural differences (Gong et al., 2007; Holden, 2004), and several replications of his work can be found in relation to different contexts, such as elite groups, bank employees and US-American airline pilots (Hoppe, 1992; Shane, 1995; Merritt, 1998; Mooij, 2001; Mouritzen and Svara, 2002; van Nimwegen, 2002).

Hofstede's cross-cultural approach appears to be very interesting also when looking at the graph generated by the online country comparison tool made available by Hofstede Insights⁵, a Culture & Strategy Advisory and Analytics organization based in Helsinki.

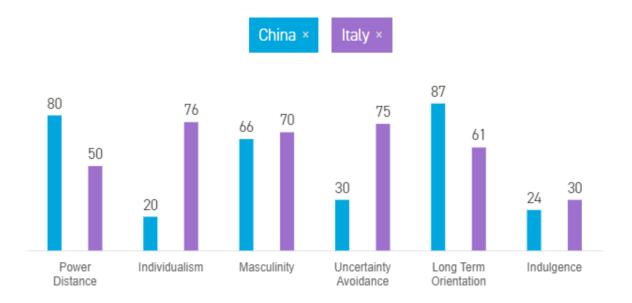


Figure 2 Hofstede Insight's comparison between Italy and China according to Hofstede's cultural dimensions model.

The graph in Figure 2 shows a value comparison of Italy and China on the basis of the six cultural dimensions identified by Hofstede. The overview offered by the country comparison tool is also provided with a brief comment on the countries for each dimension: the fragments concerning individualism and long-term orientation are given here.

INDIVIDUALISM

At a score of 20 China is a highly collectivist culture where people act in the interests of the group and not necessarily of themselves. In-group considerations affect hiring and promotions with closer in-groups (such as family) are getting preferential treatment. Employee commitment to the organization (but not necessarily to the people in the organization) is low. Whereas relationships with colleagues are cooperative for in-groups they are cold or even hostile to out-groups. Personal relationships prevail over task and company.

⁵ Retrieved from: <u>https://www.hofstede-insights.com/</u> [Last visited: 02/03/2020]

At a score of 76 Italy is an Individualist culture, "me" centered, especially in the big and rich cities of the North where people can feel alone even in the middle of a big and busy crowd. So family and friends becomes an important antidote to this feeling; but the word "friend" should not be misinterpreted because in business it has a slightly different meaning: someone that you know and can be useful for introducing you to the important or powerful people.

LONG TERM ORIENTATION

Italy's high score of 61 on this dimension shows that Italian culture is pragmatic. In societies with a pragmatic orientation, people believe that truth depends very much on situation, context and time. They show an ability to adapt traditions easily to changed conditions, a strong propensity to save and invest, thriftiness, and perseverance in achieving results.

China scores 87 in this dimension, which means that it is a very pragmatic culture. In societies with a pragmatic orientation, people believe that truth depends very much on situation, context and time. They show an ability to adapt traditions easily to changed conditions, a strong propensity to save and invest, thriftiness, and perseverance in achieving results.⁶

The overview provided by these descriptions clearly distinguishes Italy as a pragmatic and individualist culture, and China as a pragmatic but collectivist society. These aspects suggest interesting insights, which are described in depth in Chapter 4.

The second perspective that needs to be taken into account concerns cross-cultural differences in persuasion practices, which according to Zhu is a dimension that has received limited attention in cross-cultural studies (Zhu, 2013). In (Kennedy, 1991), three main means of influencing belief and action are pointed out: ethos, pathos and logos, where logos can be interpreted as logical argument, pathos as emotional argument, and ethos as ethical appeal or credibility. Even though the functions of logos and pathos are expressed in the modern Chinese terms *qing* (情 qing2) and *li* (力 li4), studies such as (Zhu and Hildebrandt, 2003; Li, 1996; Zhu, 2013, 2000) have shown that there is an underlying divergence between the Confucius-based Chinese rhetoric and Aristotelian persuasion practices in that the former

⁶ Retrieved from: <u>https://www.hofstede-insights.com/country-comparison/china,italy/</u> [Last visited: 02/03/2020]

tends to stress both the emotional and the logical approach, while in the latter the stress is on "logos, clear structure and argumentation" (Zhu; 2013: 39).

Lastly, Halliday and Hasan's notions of cohesion and reference are introduced since they were exploited for the analysis of one particular step, as described in Chapter 4. According to Halliday and Hasan, a text is "a unity of meaning in context, a texture that expresses the fact that it relates as a whole to the environment in which it is placed". From this perspective, cohesion refers to the semantic relationship between elements in a text: the abovesaid texture is created through cohesive ties within the text, and cohesion occurs when the interpretation of an element depends on that of another, that is "the one presupposes the other, in the sense that it cannot be effectively decoded except by recourse to it" (ibid: 4). Halliday and Hasan distinguish five types of cohesive ties: reference, lexical cohesion, ellipsis, substitution, and conjunction. The concepts of reference and reiteration are stressed here as they were used for the comparison of one specific step between Italian and Chinese brochures. As defined by Halliday and Hasan (ibid.), certain items have the property of reference, which means that "instead of being interpreted semantically in their own right, they make reference to something else for their interpretation" (31): in particular, they identify two types of references, namely exophoric and endophoric, of which the latter in turn consists of anaphora (i.e. reference to preceding text) and cataphora (i.e. reference to following text). As far as reiteration is concerned, it is "a form of lexical cohesion which involves the repetition of a lexical item" (278), where lexical cohesion is defined as "the cohesive effect achieved by the selection of vocabulary" (274): reiteration can be achieved by several elements, such as the use of general words, synonyms or near-synonyms, since they "share the same referent as the item which they presuppose" (277).

As claimed in (Zhu, 2013), cross-cultural dimensions are useful in the analysis of the social contexts of genres. Hofstede's cultural dimensions theory and the cross-cultural analysis of differences in rhetoric practices, therefore, have been introduced since they both represent two important perspectives that will be taken into consideration in the genre analysis presented in this dissertation.

2.2 Italy and China's economic relationships as a case in point

Over the last years, trade relationships between Italy and China have intensified, leading to an increase in the need to approach this new market in the right way in economic as well as linguistic terms. This includes the ability to address, as far as possible, a foreign market interlocutor in their own mother tongue. To investigate the ways in which language technology can support communication between Italian and Chinese companies, the case study in this project concerns Macfrut, a company from the Emilia-Romagna region that organizes the eponymous trade exhibition, held every year in May in Rimini. Over the years the Macfrut Fruit & Veg Professional Show has witnessed a growing number of Chinese customers and exhibitors, who are not only interested in the value of the renowned Made in Italy, but also fascinated by the Italian way of life. This has recently gained importance in China and concerns several sectors, such as luxury goods, fashion, tourism, and food and wine (Bertoli, 2013).

According to the data on trade rates between the two countries provided by the Ministry of Economic Development, China ranks ninth among the main exporting countries for the Italian economy with a value of 13 million euros. In turn, overall export rates from Emilia-Romagna have exceeded 65 million euros in 2018, which equals to up to 13.7% of all the Italian exported goods (Italian Ministry of Economic Development⁷). Italy is China's fifth European economic partner and only precedes the United Kingdom and Germany as China's importing market. These figures are of crucial importance and provide concrete insights into the importance of economic cooperation between Italy and China. Furthermore, they are revealing of Chinese customers' interest in Italian products and pave the way for the improvements foreseen in view of the four years' operative plan signed by the two countries in 2017, and the *One Belt One Road initiative⁸*.

2.2.1 SMEs and trade exhibitions

Since Italy and China are both characterized by a high number of SMEs, these two countries show a strong economic complementarity and there is vast space for bilateral cooperation. Both in Italy and in China SMEs are the driving force of economic development and contribute to more than half of the national income and employment rates⁹. Chinese

⁷ Retrieved from: <u>http://www.infomercatiesteri.it/scambi_commerciali.php?id_paesi=122</u> [Last visited: 02/03/2020]

⁸ Retrieved from: <u>https://www.ilsole24ore.com/art/china-italy-cooperation-the-belt-and-road-initiative-ABajqCgB?refresh_ce=1</u> [Last visited: 02/03/2020]

⁹ Ibid. [Last visited: 02/03/2020]

SMEs have economic, technological and productive strength. They are increasingly attentive to the Italian market and increasingly willing to invest in it.

In both Italy and China, exhibitions provide opportunities for SMEs to establish themselves in a constantly growing market. Italy hosts some of the most important food shows in Europe, such as MacFrut, Vinitaly, Tuttofood, Salone del Biologico, and HostMilano. In the last decade, China has been playing a major role in the food sector, and more then 20 food exhibitions were organized in 2018 across the country, such as AIFE, Int'l Import and Export Food and Beverage Exhibition, BioFach China, MacFrut China, and iFresh.

2.3 Trade fair promotional brochures: genre definition

Advertising material has often been the object of analysis due to the increasing importance of intercultural business communication (Sobhie, 2003). As suggested in (ibid.) and (Pflaum and Pieper, 1993), in Business-to-Business (B2B) activities enterprises have one central aim: standing out in the crowd by creating an image of the producer in order to

give confidence to the buyer in relation to the products and the company, since the concerns about the negative consequences of a bad purchase leads the individuals to make safe purchases, looking or products from renowned vendors in the market, contracting the companies, requesting product demons and other precautions. (Sherrington, 1993: 20)

Nevertheless, while the Internet is full of suggestions on how to produce effective brochures, mostly aimed at promoting companies rather than events, it appears that apart from the field of tourism little attention has been given to the textual genre of brochures and to trade fair promotional brochures in particular. One study that needs to be pointed out in the analysis of brochures is (Nielsen, 2001), in which the author carries out a comparison of Danish and German brewery brochures, identifying cultural differences and suggesting translation directions when dealing with this specific LSP genre. In particular, Nielsen points out that a definition is needed in order to provide an accurate description of the genre, and draws on Gelchsheimer's concept of company brochure as a

brochure which provides information about a company's line of business, size, products, history, employees, premises, location, etc. It represents image advertising and can be construed as a component of marketing. (in Nielsen, 2001: 216)

(ibid.) further argues that the company brochure, as part of a company's communication, is an instrument that "serves financial interests" and helps companies achieve their long term goals, and that in company brochures the subject "described and praised" is the company

itself (217). Even though Gelchsheimer's and Nielsen's definitions strictly concern company brochures, they still provide a first useful theoretical framework for text selection, which is further detailed by the description of brochures and their structures provided below. Furthermore, the genre analysis presented in this study has revealed that trade fair promotional brochures play a very similar role as company brochures since they are used not only as advertising material, but also as a tool to achieve other goals as well.

2.3.1 Trade-fair document spectrum

Several related types of documents exist on the Internet that are used by companies and organizations, to the extent that promotion appears to be only one part of the whole process. Following is a description of said types of documents and a brief overview of the purposes they serve and the structures they display. This informal bottom-up taxonomy is based on observation of existing texts found on the Internet and collected for reference purposes:

1. Press release (Italian: comunicato stampa; Chinese: 新闻稿 xin1wen2gao3): press releases are documents that are generally issued by organizing companies and institutions to present trade fairs. They can also be issued by national institutions or companies taking part in a trade show, in which case they are used to notify individual or collective participation. Most of the Italian and Chinese press releases on food trade fairs found on the Internet, both as pdf files and on websites, are simple text documents that show no complex structure and are mostly made up of plain text. There are some documents, however, such as those issued by ICE (Italian Trade and Investment Agency)¹⁰ and Asia Fruit Logistica (or by its Chinese name 优万果 you1wan4guo3) under the Messe group¹¹ that do present a welldefined structure with text, logos, sections and other documents, such as application forms and additional information for participating companies and exhibitors. This kind of documents have been left out during text collection as they overall differ from the reference brochure of this study.

¹⁰ An example can be found at: <u>https://www.ice.it/it/area-clienti/eventi/dettaglio-</u> evento/2019/@@/568/allegati-generati/pdf-completo ¹¹ An example can be found at: <u>https://www.asiafruitlogistica.com/zh/Press/PressReleases/PDF_60032.jsp</u>

- 2. Brochure (Italian: brochure, opuscolo; Chinese: 手册 shou3ce4): in both Italian¹² and Chinese¹³ the term brochure refers to advertising material used to promote or report about something. Most of the brochures that can be found on the web are very similar in terms of content and function (that is promoting trade fairs), but there are some differences mainly concerning the use of other elements beyond plain text and the presence of further documents. On the basis of these differences, it has been possible to distinguish between: simple brochures, which only display plain text and are very similar to press releases; brochures with plain text and paratext, namely images, graphs and tables; lastly, brochures that also contain application forms and further information for exhibitors. In particular, this last category seems to be referred to in Chinese by the word 参展商手册 can1zhan3shang1shou3ce4, literally exhibitor brochure. During the collection of brochures, therefore, all those documents that were different from the reference brochure in terms of structure and layout were left out.
- 3. Post-fair report (Italian: report post fiera/post-show report; Chinese: 展后报告 zhan3hou4bao4gao4): these documents are issued by organizing bodies in order to report on a trade fair. Even though some of these documents appear to be somewhat longer than typical brochures, post-fair reports are extremely similar to promotional brochures in terms of structure and the way information is given. Given the high similarity between brochures and post-fair reports, and since many Chinese websites or pdf files were not accessible, some post-fair reports were collected together with brochures, both for Italian and Chinese.
- 4. Sustainability/annual report (Italian: bilancio di sostenibilità; Chinese: 年度报告 nian2du4bao4gao4 or 发展报告 fa1zhan3bao4gao4): these documents are not strictly related to trade fairs. As suggested by their name, they are still part of a company's communication strategy, but they usually only display some sections concerning trade fairs, such as those organized or attended by the company itself. These texts are very different from the reference brochure of this study as they

¹² Retrieved from: <u>http://www.treccani.it/magazine/lingua_italiana/domande_e_risposte/varie/varie_020.html</u> [Last visited: 02/03/2020]

¹³ Retrieved from: <u>https://baike.baidu.com/item/%E6%89%8B%E5%86%8C</u> [Last visited: 02/03/2020]

usually display a well-defined structure and are much longer than promotional brochures. Since they may represent a self-standing genre, this particular kind of documents has been left out of text collection.

2.3.2 Basic structure of trade fair brochures

In addition to the distinction suggested above, in terms of structure and layout trade fair promotional brochures can be defined as documents that usually employ other elements in addition to plain text, such as images, charts, graphs, text format, etc. One distinguishing feature of brochures is that plain text actually represents a little portion of the whole document: indeed, information is typically given in a very schematic way with charts and graphs preferred over plain text, which is instead employed mainly in the description of events and activities related to the trade fair. Formally, the Italian and Chinese brochures analyzed in this study all present a very similar structure, which can be described as follows:

- front page: the front page of a trade fair promotional brochure usually consists of an image and a few other elements. The image typically covers the whole page and it is accompanied by the name of the trade fair, date, place, the names and the logos of the organizing bodies and other partners. All the brochures analyzed display these items on the front page.
- main body: this section includes the pages between the front cover and the last page, and it contains all the main information concerning the trade fair. Even though content may be distributed differently across brochures, the body can be usually split up into several sections that recur more or less frequently with similar names. In particular, it was possible to identify: visitors' and exhibitors' satisfaction, origin, interests, profession and sectors, statistics from previous editions, exhibition space and a map of the trade fair, visitors' and exhibitors' opinions, and lastly descriptions of on-spot events and activities.
- last page: the last page is usually very similar to the front page. In many cases the image from the front page is used again along with other recurring elements: name, date and place of the trade fair, names and logos of the organizing bodies and other partners, and contact information, including websites and social media.

The definition of trade fair brochures and the description of their structure presented in this chapter have been fundamental in providing a context for the analysis of this specific textual genre, and in particular in identifying selection criteria for the collection of brochures from the Internet, which are described in Chapter 4.

Chapter 3 Method

3.1 Text processing and translation resource creation

At the heart of the present project lies the fact that, to the best of my knowledge, no study involving Machine Translation and/or Computer Assisted Translation (CAT) between Italian and Chinese is available. Works such as Chao et al. (2018), Costa-Jussà et al. (2012) and Centelles and Costa-Jussà (2014) deal with other Romance languages, namely Portuguese and Spanish. However similar these might be to Italian, more resources for these language pairs exist and are accessible to the research community. Therefore, while the similarities between Italian and other Romance languages might suggest interesting directions for future research, they still do not provide any solution to the lack of bilingual resources for Italian and Chinese, both for MT system training and CAT. In other studies such as Chen and Ge (2011), Leong et al. (2018) and Young and Li (2003), many tasks, including text preparation and alignment, are fulfilled automatically with the help of scripts using programming languages such as Python or other available tools and software. Despite this being the common practice among NLP researchers, process automation still requires a set of abilities from other fields such as Computational Linguistics: this does not only confirm the idea presented in Chapter 1 that MT is not to be employed for mainstream application, but it also does not take into account all those cases in which a freelance translator or a translation agency (i.e., someone who is not a computational expert) may intend to leverage MT in order to increase their productivity and turnaround time. Lastly, using a pivot language in MT tasks, as in (Liu et al., 2018) and as suggested by the GNMT research team (Johnson et al., 2016), represents a viable option to make up for the lack of bilingual resources for certain language pairs. Nevertheless, pivot translation often represents a time-consuming and risky process as quality might be lost as a result of double translation or error propagation across language pairs; materials need to be available for the intermediate language as well; lastly, working with linguistically close languages enables the system to yield better results (Liu et al., 2018).

With a view to attempting a computer-assisted translation of the text selected for the present thesis, several resources were created from scratch, namely: two comparable corpora of trade fair brochures in Italian and Chinese; one simple termbase containing bilingual

lexicon extracted from the analysis of the corpora; one Italian-Chinese translation memory created by aligning bilingual articles. In the following sections, a description of the creation of said resources is provided, with a focus on text collection and processing as well as the difficulties encountered in dealing with Chinese texts.

3.2 Text selection and translation memory creation

Since not many Italian-Chinese resources are openly accessible on the Internet, the texts for the creation of the translation memory to be used in the SDL Trados Studio¹⁴ translation environment were collected from *Cina in Italia*, an editorial project born in 2001 and a monthly magazine that has been publishing bilingual articles in Italian and Chinese since 2007. The choice of selecting this magazine as a resource for bilingual data is due to several reasons:

- The author of this study was granted permission to use the content of the magazine, which made *Cina in Italia* an easily accessible resource;
- The availability of a digital version of the magazine in PDF format simplified the text collection process as there was no need to employ Optical Character Recognition (OCR) tools to convert images to text. In case only the print format of the magazine had been available, the OCR process would have been necessary; this would have taken a long time to ensure that the recognition was correct, in particular for Chinese characters.
- Since *Cina in Italia* is a bilingual magazine, articles are written in Chinese or Italian and then translated into the other language by human translators, which represents a primary key of quality.

Articles were collected mainly according to their similarity in topic with the case study of this thesis. Since the articles published by *Cina in Italia* cover a wide range of topics, priority was given to those concerning trade fairs as well as economics and politics in general. The reason behind this was to ensure that the translation memory could offer useful suggestions in the computer-assisted translation process. At the same time, articles on a few different topics were included in order to prevent the translation memory to be too specific.

¹⁴ Retrieved from: <u>https://www.sdl.com/</u> [Last visited: 02/03/2020]

3.2.1 Text collection and processing

Texts were directly copied from the PDF files of the magazine and then pasted in the Notepad++ editor, where they were processed and prepared for alignment both manually and with the help of regular expressions. Since the magazine text is structured in columns, the original text format was modified by deleting all the new lines (\n) in the documents and adding a space for the Italian texts as to account for the space between words, which instead was not necessary for Chinese¹⁵. After that, a new line was added after each full stop in the text in order to make sure that only one sentence was placed on each line¹⁶. The last regular expression returned a white space at the beginning of each line in the Italian documents, which was then removed¹⁷.

Further cleaning and checking operations were carried out manually, namely:

- authors' and translators' names were removed (these can be found together with the titles of the articles and time of publication in Appendix);
- article titles and paragraph titles were separated in order to ensure uniformity across all the texts and facilitate the alignment process. In particular, this step turned out to be mandatory for Chinese given the lack of space between characters;
- all the instances of a new line after a full stop that was not placed at the end of a sentence or served other purposes (for instance, in the Italian text . ", . «, 8.33%, abbreviations, etc.) were manually corrected. As for Chinese, apart from having to regroup percentages (where digits are separated by a Western period), this step was not necessary as the sentence-ending period is represented by the character . and is not used for any other purpose (for instance, the Chinese numeration system employs characters to express multiples of ten and digits are therefore not divided as in Western languages).

At the end of the collection and processing steps, 126 texts (63 per language) were collected, named according to the month of publication and stored as .txt files.

 $^{^{15}}$ Find: /\n/ - Replace with: // (for Italian); find: /\n/ - Replace with: // (for Chinese)

¹⁶ Find: \wedge ./ - Replace with: \wedge ./n/ (for Italian); find: /。 / - Replace with: /。 /n/ (for Chinese)

¹⁷ Find: /^ / - Replace with: //

3.2.2 TM creation: segment alignment

Texts were manually aligned in SDL Trados Studio 2017 given its user-friendly and straightforward alignment interface as well as the author's familiarity with the software. Before starting the alignment phase, some tests were run on InterText¹⁸, a parallel alignment text editor that is mainly based on two functions: splitting sentences and adding segments. Attempts at aligning segments were made using the integrated *hunalign* sentence automatic aligner. The alignment in InterText, however, did not yield good results: in some cases, the \n characters added in Notepad++ were apparently not recognized by the software, which means that segments had to be split before moving on to the alignment. This, of course, nullified the text cleaning and processing tasks carried out in the previous step. In other cases, modifying the alignment produced by InterText was more time-consuming than aligning the segments all over again. These are the main reasons why Trados was used to align segments in the end.

Π	dec_2 - 1	nterText * 🛛 🗕 🗖	>
Alignr	nent Edit Search Options Help		
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M	I dec_2_zh	dec_2_it	s
25 th	»会议提出,中国特色社会主义制度是党和人民在长期实践探索中形成的科学制度体系, 我国国家治理一切工作和活动都依照中国特色社会主义制度展开,我国国家治理体系和治 理能力是中国特色社会主义制度及其执行能力的集中体现。	» La capacità di governo nazionale è inoltre la capacità di applicare il sistema nazionale alla gestione di ogni aspetto degli affari.	Ø
26 😭	»与此同时,国家治理体系和治理能力又是一个相辅相成的有机整体。	» Solo con un buon sistema di governo nazionale è possibile migliorare la capacità di governo;	Ø
27		 migliorando la capacità di governo è possibile esercitare pienamente l'efficacia del sistema di governo di nazionale. 	0
28		» Nel febbraio 2014, in occasione della cerimonia di apertura del seminario speciale per i dirigenti di livello provinciale e ministeriale della Scuola del Comitato centrale del Pcc, Xi Jinping ha sottolineato che è necessario adattarsi al processo generale di modernizzazione nazionale;	0
29 😭		 migliorare il governo scientifico del Partito, il governo democratico e il livello di governo secondo la legge; 	0
30 😭	▶国家治理能力则是运用国家制度管理各方面事务的能力。	» migliorare le capacità delle istituzioni statali di svolgere i propri compiti;	Ø
31		 migliorare la capacità delle persone di gestire gli affari nazionali, quelli economici, sociali e culturali e quelli personali secondo la legge; 	0
32		 realizzare l'istituzionalizzazione, la standardizzazione e la programmazione della gestione degli affari del (Partito, dello Stato e della società; 	0
33		 migliorare continuamente la capacità di governare in maniera efficace lo Stato attraverso l'applicazione del socialismo con caratteristiche cinesi. 	0
34 ^오	▶ 有了好的国家治理体系,才能提高治理能力;提高了国家治理能力,才能充分发挥国家治理体系的效能。	>> La prima raffigurazione della mappa istituzionale	Ø
35	▶ 2014年2月,习近平在中央党校省部级主要领导干部的专题研讨班开班式上指出,必须适应国家现代化总进程,提高党科学执政、民主执政、依法执政水平,提高国家机构履职能力,提高人民群众依法管理国家事务、经济社会文化事务,自身事务的能力,实现党,国家,社会各项事务治理制度化、规范化,程序化,不断提高运用中国特色社会主义制度有效 15 % confirmed 0 (%); auto \$1 (10%); unconfirmed 2 0%; first unconfirmed 3 genent: 1 bookmarks 0	costruzione.	Ø

Figure 3 This is an example of errors in the automatic alignment in InterText.

The automatic alignment carried out by Trados did not always yield good results, either. One of the reasons behind this is the fact that unlike for similar languages, when dealing with a language combination such as Italian-Chinese, 1:1 alignment cannot be fully achieved,

¹⁸ Retrieved from: <u>https://wanthalf.saga.cz/intertext</u> [Last visited: 02/03/2020]

which is exactly what software applications such as Trados tend to do when aligning texts automatically. In many cases, indeed, one Chinese sentence did not match only one Italian sentence and vice versa, thus all the automatic alignments were disconnected and performed manually. In particular, when 1:1 alignment was not possible, either one segment in Italian was connected to two segments in Chinese (and vice versa) or all the relevant content was directly pasted in one (larger) segment.

At the end of the alignment process, a translation memory containing 2091 aligned segments was created and stored as an .sdltm file.

3.3 Creation of comparable corpora and simple termbase

3.3.1 Brochure collection

For the creation of the two Italian/Chinese comparable corpora of trade fair brochures, 12 Italian and 10 Chinese brochures in .pdf format were collected from the Internet. The selection was performed according to the following main criteria:

- Only brochures with less than 10 pages were selected: considering that brochures are generally composed of alternating text and images, this was useful in keeping some sort of balance between Italian and Chinese texts in terms of length and it also helped ruling out other documents/genres that are used in the trade fair business but that differ from promotional/advertising brochures, in particular press releases and trade fair reports;
- 2. Only brochures of trade fairs in the food sector with the structure described in Chapter 2 were selected;
- 3. For both Italian and Chinese, brochures had to be (ideally) written by native speakers. Since in the brochures themselves there was no indication of such feature, for Italian only brochures concerning Italian trade fairs, trade fairs taking place in Italy and trade fairs where Italy was one of the participating countries were selected. As for bilingual brochures in Italian and English, special attention was paid to the Italian text in order to ensure that the Italian version was not the translation of a brochure that had first been written in English. This applied in particular to one brochure promoting a trade fair in Turkey, in which the Italian text appeared to be a literal translation of the English version rather than a text produced by an Italian native speaker. The same criterion was applied to brochures in Chinese: in this case, when brochures concerned trade fairs taking place outside of Mainland China, it was

ascertained that Chinese organizing institutions and bodies were mentioned in the text or that their logos appeared in the brochures. This was the case for a brochure promoting a trade fair in Berlin, which was finally added to the collection as it was issued by the Messe Berlin trade fair company, which currently operates in more than 170 countries through subsidiaries all over the world, including China.

All the texts were processed and cleaned in Notepad++ editor, in particular:

- since some of the brochures were bilingual (Italian/English or Chinese/English), where present English text was removed;
- items such as country names, trade fair partners and lists of numbers that were not connected to any lexical item were removed in order to allow a smooth analysis of the corpora and to avoid an excessive focus on irrelevant items from unconnected text in the analysis of wordlists and keyword lists. An example of this comes from Chinese brochures, that often display lengthy lists of trade fair partners; their name is almost always followed by the Chinese word for 'company' (公司 gong1si1), which would have therefore inflated the frequency of this item in the Chinese corpus.

At the end of this process, two comparable corpora of trade fair brochures containing 11,786 tokens for Italian and 11,290 tokens for Chinese were created.

3.3.2 Corpus and language feature analysis

The two newly compiled comparable corpora were analyzed in AntConc¹⁹ and SketchEngine²⁰. Not only did the corpora serve as the starting point for genre and language analysis as well as bilingual lexicon extraction, they also contributed to the computer-assisted translation process as reference material since the concordance and collocate tools helped to improve translation quality. Both AntConc and Sketch Engine proved to be useful tools in several ways. Here follows a description of the operations performed as well as an overview of the problems related to the analysis of Chinese texts in particular:

¹⁹ Retrieved from: <u>https://www.laurenceanthony.net/software/antconc/</u> [Last visited: 02/03/2020]

²⁰ Retrieved from: <u>https://www.sketchengine.eu/</u> [Last visited: 02/03/2020]

- **AntConc**: Laurence Anthony's AntConc is a user-friendly corpus analysis toolkit that was mainly used for a first and straightforward analysis of the corpora. One important thing that needs to be taken into account when analyzing Chinese texts in AntConc is that texts need to be segmented. This helps the corpus analysis tool to establish boundaries between words, which is crucial for languages such as Chinese where lexical units are not separated by any space. The segmentation of Chinese texts was carried out in SegmentAnt²¹, a freeware Japanese and Chinese segmenter tool developed by Laurence Anthony, on the basis of a dictionary that is integrated in the tool (Figure 4).

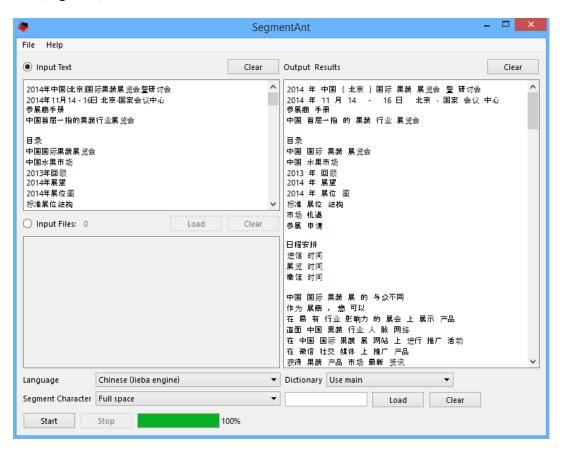


Figure 4 This is what the Chinese text looks like after being segmented in SegmentAnt.

If texts are not segmented, AntConc appears to perform some sort of automatic segmentation. However, most of the times boundaries between lexical units are not correct, which subsequently affect the usability of some of the functionalities of AntConc, such as collocates, wordlists and concordances, as shown in Figure 5.

²¹ Retrieved from: <u>https://www.laurenceanthony.net/software/segmentant/</u> [Last visited: 02/03/2020]

Furthermore, working with texts that have not been previously segmented does not give the opportunity to perform the analysis of single Chinese characters as the software does not consider them as words or complete lexical units and automatically returns 0 hits most of the times, as shown in Figure 6.

A solution to this problem may be using regular expressions for the generation of concordances, but this still does not solve the problems related to collocation and wordlist features in terms of word boundaries. Another complication regarding Chinese text analysis with AntConc is the impossibility to generate a keyword list since no reference corpus in .txt format could be found on the Internet. In AntConc, the reference corpus to be used for the generation of a keyword list needs to be loaded as a .txt file into the tool, which means that in the absence of a concrete reference corpus file, it is impossible to use this particular feature of AntConc;

orpus Files	Concor	dance Co	ncordance Plot File View Clusters/N-Grams Collocates Word List Keyword List
eijing_2014.txt olin 2020.txt	Word Ty	pes: 205	2 Word Tokens: 2460 Search Hits: 0
GW_2017.txt	Rank	Freq	Word Lemma Word Form(s)
uitLog_2019.txt	85	2	上届回顾
uangzhou_2016.txt	86	2	上海万耀企龙展览有限公司由
ortichina_2018.txt resh_2018.txt	87	2	上海国际果蔬制品与深加工论
acfrut_2020.txt	88	2	上海市会展行业协会主
anghai_2019.txt	89	2	上海市食品协会
NU_2018.txt anguo_2018.txt	90	2	专业观众
	91	2	个国家和地区的
	92	2	个国家的
	93	2	中央厨房加工设备等
	94	2	中欧果蔬论坛
	95	2	举办
	96	2	买家联盟
	97	2	二十多年来一直是中国会展行
	98	2	亚洲国际果蔬展览会
	< >	< >	
	Search T	erm 🗸 🛛	Nords Case Regex Hit Location
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tal No.	Star	t	Stop Sort Lemma List Loaded
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Figure 5 Errors in word segmentation in AntConc.

*	AntConc 3.4.4w (Windows) 2014	- 🗆 🗙
File Global Settings Too Corpus Files Beijing_2014.btt Bolin_2020.btt CGW_2017.btt FruitLog_2019.btt Guangzhou_2016.btt Hortichina_2018.txt iFresh_2018.txt Macfrut_2020.txt Shanghai_2019.txt VNU_2018.txt Wanguo_2018.txt		File
Total No. 11 Files Processed	Search Term ♥ Words Case Regex Search Window Size Advanced 50 ♥ Start Stop Start Stop Kwic Sort ♥ Level 1 1R ♥ ♥ Level 2	< > v

Figure 6 Error in single character search in AntConc.

Sketch Engine: Sketch Engine is a corpus analysis platform that gives the opportunity to perform a plethora of operations on a corpus, and it was therefore employed for a deeper and more comprehensive analysis of the texts. Apart from giving the opportunity of loading and analyzing one's own corpora, other interesting features of Sketch Engine include the automatic segmentation and POS-tagging that the software applies to the texts as well as the possibility of extracting keywords from a number of reference corpora that are already integrated in the platform. In particular, the automatic segmentation of Chinese texts proved to be correct in most cases, especially when compared to the segmentation carried out by AntConc. Furthermore, the automatic POS-tagging made it possible to generate separate lists for different grammar categories, such as lists of adjectives, verbs, nouns, adverbs and so on, thus enabling a more straightforward process of equivalent translation matching for the creation of the termbase and allowing to make generalizations over single words by grouping them into meaningful categories. Other features of this platform that have been employed for corpus analysis include collocations, defined as "a sequence or combination of words that occur together more often than would be expected by

chance^{"22}, and n-grams, defined as "sequence of a number of items"²³. As far as the keyword list tool is concerned, the fact that several reference corpora are already implemented in Sketch Engine was a solution to the complications encountered in AntConc. In particular, keyword lists were generated using two corpora from the TenTen corpus family, a family of text corpora that were created from the web according to the same criteria (the corpora belonging to this family can actually be regarded as comparable with each other). In particular, the itTenTen16 corpus²⁴ was used for Italian and the zhTenTen17 corpus²⁵ for simplified Chinese.

3.4 Creation of the termbase

The simple termbase to be used in Trados was created from scratch with the help of two applications of the SDL Language Platform: SDL Multiterm Convert 2017²⁶ and SDL Multiterm Desktop 2019²⁷. In particular, Multiterm Convert is a wizard that allows users to use a simple glossary as an input file in order to produce an XDT and an XML file: the XDT file is used as the structure definition file of the termbase, while the XML file contains the terms extracted and is imported in MultiTerm Desktop to add entries.

Candidate terms were mainly extracted from collocation and word lists and pasted into a .txt file with a format of three tab-separated columns: the first column for terms in Italian, the second for terms in Chinese, and the third for any notes regarding the extracted terms, including synonyms. The .txt glossary was imported into an Excel spreadsheet with the same format and the Excel file was then employed in MultiTerm Convert as an input file in order to define the termbase structure. After defining the structure, terms were imported in the empty termbase in the MultiTerm Desktop environment. What needs to be pointed out with regards to bilingual lexicon extraction is that the text selected for this thesis did not contain a large amount of technical terms. Since simple terms such as positively-connotated verbs

https://app.sketchengine.eu/#dashboard?corpname=preloaded%2Fzhtenten17_simplified_stf2. ²⁶ Retrieved from: <u>https://docs.sdl.com/LiveContent/content/en-US/SDL%20MultiTerm%20Help-v4/GUID-E30A64A7-8F33-43C2-873A-0B3EE23957CF</u> [Last visited: 02/03/2020]

²² Retrieved from: <u>https://www.sketchengine.eu/my_keywords/collocation/</u> [Last visited: 02/03/2020]

²³ Retrieved from: <u>https://www.sketchengine.eu/my_keywords/n-gram/</u> [Last visited: 02/03/2020]

²⁴ 5,864,495,700 tokens; further details on the corpus can be found here:

https://app.sketchengine.eu/#dashboard?corpname=preloaded%2Fittenten16_2. ²⁵ 16,593,146,196 tokens; further details on this corpus can be found here:

²⁷ Retrieved from: <u>https://www.sdltrados.com/products/multiterm-desktop/</u> [Last visited: 02/03/2020]

or adjectives turned out to be very frequent items in the genre under analysis, and potentially relevant for CAT and MT, they were inserted in the termbase as well (for instance, ottimizzare/优化 you1hua4, migliorare/促进 cu4jin4, avanzato/先进 xian1jin4). Lastly, the creation of a full-fledged termbase was not deemed necessary for a single translation task, concerning a relatively non-technical text type. Instead, *ad hoc* terminology searches were carried out on the Internet for the translation of more technical terms. At the end of this process, a simple termbase with 120 Italian terms and their Chinese equivalents was created and stored as a file with the .sdltb extension.

Chapter 4

Analysis of trade fair promotional brochures

4.1 Analysis background

This chapter offers a cross-cultural comparison of Italian and Chinese promotional brochures of trade fairs in the food sector. As explained in Chapter 2, analyzing a textual genre across different cultures means investigating its linguistic features as well as its communicative purposes and rhetorical approaches. Drawing on Zhu's analysis of English and Chinese business faxes and sales letters (1997, 2013), this analysis is based on the following questions:

- 1. In terms of linguistic features and persuasion practices, what are the differences and similarities in this textual genre across the two cultures?
- 2. Do the texts collected have the same functions in the social contexts in which they are produced and employed?
- 3. What are the implications for producing trade fair promotional brochures and using them in cross-cultural communication?

In order to respond to these questions, this comparison mainly draws on Swales's move-and-step approach, cross-cultural differences in persuasion practices, Hofstede's cultural dimensions theory, and Halliday and Hasan's notions of cohesion and references, which have proved to be useful dimensions in explaining the results of previous cross-cultural genre studies.

Two aspects about the analysis presented here need to be pointed out. Firstly, the numbers next to each move, step and sub-step do not necessarily indicate an order within the text: since elements are often distributed arbitrarily in promotional brochures, it is possible that the structure here presented is not followed in other texts, and that, for instance, some of the items described in this chapter may come before or after others; secondly, for each move, step and sub-step a description of the similarities and differences identified as well as an explanation of the findings are provided. Table 1 and 2 summarizes the moves and steps identified in Italian and Chinese promotional brochures.

Moves, steps and sub-steps in Italian trade fair promotional brochures					
Moves	Steps	Sub-steps			
Create an image of the producer	Name of the trade fair Express positive evaluations	Lexical boosts Positively-connotated words			
Establish credentials	Lists of partners Satisfaction indexes Statistics				
Describe the event	Description of the trade fair and related activities International character				

Table 1 Move, steps and sub-steps identified in Italian trade fair promotional brochures.

Moves, steps and sub-steps in Chinese trade fair promotional brochures					
Moves	Moves Steps				
Create an image of the producer	Name of the trade fair/Use of 1 st person plural pronoun Express positive evaluations	Lexical boosts Positively-connotated words			
Establish credentials	Lists of partners Satisfaction indexes Statistics				
Describe the event	Description of the trade fair and related activities International/national character				
Establish business relationships	Direct and personal tone Use of pronouns Use of language plays				

Table 2 Moves, steps and sub-steps identified in Chinese trade fair promotional brochures.

4.1.1 Moves and steps in Italian and Chinese brochures

Move 1: Create an image of the producer

Step 1: Name of the trade fair

One of the main differences that has stood out since the text collection phase is what appears to be a major divergence between the Italian and the Chinese practice regarding trade fair names. As far as trade fairs in the food sector are concerned, it appears that in Italy the general practice is to choose a name for the trade fair: in some cases these names are reminiscent of English or Latin words, and in general they contain references to the sector concerned by the trade fair itself (for instance, the name *Macfrut* contains a clear reference

to the food-and-vegetable sector). Conversely, this does not appear to be the case for Chinese trade fairs: apart from a few trade fairs for which an English name was also chosen, indeed, it appears that names of Chinese trade fairs are usually modeled on the basis of recurring fixed patterns, in which it is possible to identify specific elements, as shown in the figures below:

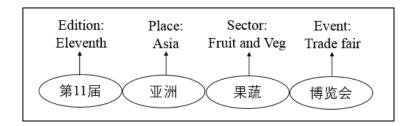


Figure 7 One of the patterns employed in Chinese trade fair names.

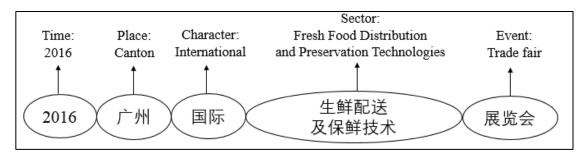


Figure 8 Another pattern used in Chinese trade fair names.

Even though such difference may not seem to have major implications at a first glance, it is actually a very interesting aspect that raises two main issues:

- 1. What is the function of trade fair names?
- 2. Should trade fair names be translated across languages?

As far as the first question is concerned, it needs to be pointed out that the number of samples analyzed in this study is limited, and more samples should be collected in order to arrive at a satisfactory answer. Furthermore, it would also be very interesting to see how this aspect is dealt with in promotional brochures from other sectors. Within the limits of the current study, Halliday and Hasan's concepts of reference and reiteration were exploited in order to analyze the functions of trade fair names. The analysis of this particular step consisted, therefore, in identifying all the references to the trade fair within the Italian and the Chinese brochures. In the Italian texts, the trade fair name is used in most cases and it is

the subject of most sentences, while references to it include synonyms of the term *fiera*, such as *manifestazione*, *evento*, *salone* and *attività*, which are usually accompanied by the demonstrative *questo*. For what concerns Chinese brochures, instead, even though most references to the trade fair are the name of the trade fair or synonyms of the word 展览会 (such as 活动, 展会 and 博览会) as in the Italian texts, there is a greater use of the 1st person plural pronoun 我们, which is employed in particular in some detached sections concerning partners, visitors and exhibitors (such as 我们的合作伙伴 'our partners', 我们的参展商 'our exhibitors').

The explanation to this divergence probably lies in the fact that in Italian, as stated above, the general practice is to pick a name for the trade fair in order to create a sort of entity attached to the name itself: when the name is used within the text, it does not only refer to the event described in the brochure, but it is also strictly linked to all the organizations and companies involved in the trade fair itself. This aspect, furthermore, is probably leveraged by Italian companies and institutions involved in the trade fair sector in order to literally create an image of the producer/product, and it also contributes to making the reader, thus visitors and exhibitors, feel part of a bigger community where they can interact and make business. In the Chinese texts the sense-of-community function is accomplished by the 1st plural person pronoun, which may be seen as a device that encompasses *pathos* and is employed to interact and build a relationship with the reader.

This finding may be well explained through Hofstede's cultural dimensions theory and the cross-cultural persuasion approach. On the basis of Hofstede's concepts of individualism and collectivism, in fact, it may be said that in the Italian brochures a single entity is created by giving a name to the trade fair, while in Chinese the more frequent use of the pronoun 'we' clearly reflects a collectivist view. As for persuasive practices, this difference may partly confirm Zhu's findings in her study of sales letters and business faxes (2000, 2003): in the Italian brochures, the emphasis seems to be overall on *pathos* by means of the trade fair name, while in Chinese there does seem to be a combination of *qing* and *li*, thus *pathos* and *logos*, in that trade fair names are modeled on rather fixed patterns (*logos*) while the references to the trade fair found in the texts suggest that the Chinese rhetoric approach encompasses *pathos* as well. Another aspect concerning this finding is that in the revision of the computer-assisted translation carried out for this study, the suggestion was made to translate the name of the trade fair using the above presented structure, alternatively

maintaining the original name in brackets before or after the Chinese translation, which shows a clear preference for the use of fixed patterns in terms of trade fair names.

As far as the second issue is concerned, namely whether to translate the name chosen for the trade fair, different solutions can be identified. The practice of translating company and product names into Chinese is a very widespread one, and it has been analyzed in studies such as (Hong, 2017), (Dong et al., 2001) and (He and Xiao, 2003). Translating the name into another language may be seen as a marketing strategy, especially when dealing with languages such as Chinese where the visual impact also plays a key role in the reception of the message. Another interesting solution is provided by Google Translate, which outputs a phonetic translation of the name of the trade fair chosen for this study, as shown in the figure below:



Figure 9 Phonetic translation of the name Macfrut carried out by Google Translate.

The solution suggested by Google Translate, namely 麦克弗鲁特 Mai4ke4fu4lu3te4, is based on some Chinese characters that are typically used in phonetic translations and do not necessarily have a positive connotation. Considering that the name *Macfrut* is very likely to be pronounced by Chinese native speakers according to Chinese phonetics, using a phonetic translation may be a viable option to translate the name of the trade fair as well as the entity attached to it. Other solutions may be opting for a phono-semantic matching, i.e. the incorporation of a word by replacing it with phonetically and semantically similar words, or choosing a new name that contributes to create a positive image and that contains a reference to the sector and/or the features of the trade fair itself.

Step 2: Express positive evaluations

Sub-step 1: lexical boosts

As demonstrated by (Zhu, 2000) in her study of English and Chinese sales letters, lexical boosts "are used to achieve the purpose of appraising the product" (486). According to Bhatia (1993) and Teh (1986), lexical boosts are positive evaluations; similarly, according to Talbot (2010), lexical boosts are elements that intensify a statement. By looking at the adverb lists generated on Sketch Engine, it was possible to see that both in Italian and Chinese there is a widespread use of lexical boosts, as shown in the table below:

Italian	Frequency	Chinese	Frequency
più	50	将	24
anche	20	更	18
grazie	14	最	18
molto	14	逆向	12
sempre	12	也	12
oltre	11	共同	11
solo	7	不	10
ben	6	还	10
ancora	6	非常	9
circa	5	已	8
bene	5	很	8
inoltre	5	多	7
proprio	4	已经	7
altamente	4	同时	6
oggi	4	成功	6
quindi	3	共	5
fuori	3	进一步	4
già	3	近	4
insieme	3	一直	4
qui	3	直接	4

Table 3 First 20 items of the adverb lists generated on Sketch Engine for the Italian and the Chinese corpora.

As far as some of the items are concerned, such as the Italian *sempre* and *proprio* as well as the Chinese 成功 and 进一步, these terms can be considered as being employed as lexical boosts in the texts collected as they can usually be found in contexts similar to those shown below:

introduzione di soluzioni tecnologiche	sempre	più innovative, permetteranno non solo
convergono e determinano un <u>interesse</u>	sempre	crescente; in tale contesto in
si <u>contraddistingue</u> come <u>un vero e</u>	proprio	Hub per i professionisti del settore
scenario e Fieragricola Marocco nasce	proprio	per essere un <u>valido</u> ponte tra le

Table 4 Selected occurrences of sempre and proprio in the Italian corpus.

[…] 智慧 全冷链 <u>解决 方案</u> ! <s></s>	成功	<u>搭建</u> 了 生鲜 配送, 冷链 技术 设···
[…] <s> 继第一 届 世界 柑桔 产业</s>	成功	论坛举办 后 , 今年 将 依旧 <u>以</u> 柑桔 …
[…] , 求 <u>通过</u> 年会 活动 <u>帮助</u> 从业者	进一步	了解 在 我国 已经 进入 全面 建成 …
[…] 模式 , <u>取得</u> 了 <u>很 好</u> 的 宣传 <u>效果</u> ,	进一步	<u>提高</u> 了富县 " 延安 苹果 " 和 " 苹果 ···

Table 5 Selected occurrences of 成功 and 进一步 in the Chinese corpus.

Sub-step 2: Positively-connotated words

Another aspect that can be included among lexical boosts is the use of positivelyconnotated words. This device is employed to express positive evaluation and "contribute[s] to the persuasive force of the move" (Labrador et al., 2014: 44). The use of words with a positive connotation was mainly analyzed by generating wordlists for nouns, adjectives, verbs and adverbs and then by looking at single concordances on Sketch Engine (Tables 6 and 7).

Verbs	Frequency	Adjectives	Frequency	Adverbs	Frequency
dedicare	25	nuovo	35	più	50
sviluppare	12	professionale	22	anche	20
consolidare	5	importante	16	molto	14
soddisfare	5	principale	14	sempre	12
valorizzare	5	unico	10	oltre	11
favorire	5	specializzato	9	ben	6
creare	5	innovativo	7	inoltre	5
fruttare	4	crescente	б	altamente	4
promuovere	4	dinamico	6	esclusivamente	2
migliorare	4	migliore	5	prevalentemente	2
avanzare	4	ideale	4	soprattutto	2

Table 6 Selected verbs, adjectives and adverbs found in the Italian corpus.

Verbs	Frequency	Adjectives	Frequency	Adverbs	Frequency
提供	21	新	35	更	18

打造	15	新鲜	27	最	18
发展	11	最新	12	也	12
吸引	10	专业	10	还	10
达到	5	优质	10	非常	9
致力于	5	重要	9	很	8
拓展	5	顶级	9	同时	6
促进	5	大型	6	成功	6
服务	5	唯一	6	进一步	4
成立	5	精彩	5	不断	4
创造	5	优秀	4	全面	4
实现	4	最佳	4	并	3
合作	4	先进	2	再次	3

Table 7 Selected verbs, adjectives and adverbs found in the Chinese corpus.

In order to provide some examples of the context in which these words are to be found in the corpora, some concordances are shown below:

workshop e presentazioni, per	valorizzare	al massimo le produzioni e il loro
83% vuole acquisire <u>nuovi</u> contatti e	promuovere	l'immagine aziendale Innovazione
Rappresenta a livello globale uno dei	principali	eventi di riferimento per
buyers program Un programma	dinamico	e <u>innovativo</u> che <u>offre</u> ai key players
Fiere ha <u>coinvolto</u> una delle	più	qualificate realtà italiane di
<u>entusiasti</u> : " <u>Ottimo</u> lavoro, risultati	oltre	le aspettative" "Abbiamo incontrato

Table 8 Selected occurrences of some of the positively-connotated items found in the Italian corpus.

[…] 亚洲 国际 果蔬 展览会 团队 <u>为您</u>	提供	<u>全方位</u> 服务 , 确保 <u>您</u> 在 香港 <u>成功</u> ···
[…] 提供 支持 , <u>为</u> 中 小 企业	打造	未来 改革 之 路 。 拥有 逾 20 […]
[…] 的 产品 <u>提供</u> 了 <u>更 宽广</u> 和	优质	渠道 ! 逆向 采购会 的 […]
[…] 帮助 。 同期 活动 <u>高潮迭起</u> ,	精彩	不断 来自 " 洛川 宣传 " 的 会后 报···
·· <u>非常好</u> 的 <u>效果</u> ,我们	非常	<u>满意,希望</u> 下届会议继续 <u>合作</u> …
… <u>为</u> 全行业社群电商找寻全国	最	<u>适合</u> 的水果产品供应商, <u>助力</u> …

Table 9 Selected occurrences of some of the positively-connotated items found in the Italian corpus.

As suggested by the results shown in the tables and the concordances, all these words are used as devices to attract the reader's attention. It is also interesting to note that both Italian and Chinese promotional brochures of trade fairs appear to place emphasis on the benefits provided by participating to the trade fair, thus playing an advertising as well as informative function.

Move 2: Establishing credentials

A second move that can be identified in Italian and Chinese brochures concerns the purpose of establishing credentials. This aim is achieved through the use of some elements such as lists of partners, satisfaction indexes and statistics from previous editions of the trade fair: all these pieces of information can usually be found in brochures as self-standing sections made up of graphs, charts and tables.

Step 1: Lists of partners

This element can come in different forms as it can concern specific partners or exhibitors/visitors that have taken part in the trade fair. This section occurs 5 times in the Italian brochures and 6 times in the Chinese ones. There does not seem to be, therefore, any divergence between the two languages in terms of frequency. One difference, however, concerns the length of this section, as in the Chinese brochures it can contain up to more than 100 items, thus taking up entire pages of the brochures, while in the Italian texts it rarely includes so many elements. Lastly, lists of partners are more likely to be found in Italian post-show reports, while in Chinese they are also employed in actual brochures.

Step 2: Satisfaction indexes

Satisfaction indexes are another device employed by organizing companies and bodies to give credibility to the event that is being promoted. As with lists of partners, this element also comes as a detached section in which visitors' and exhibitors' satisfaction rates are expressed in percentages or as opinions (for instance, *soddisfatto* and *non soddisfatto* in the Italian brochures and 很好 and 不错 in the Chinese ones). A third alternative is represented by this section reporting on visitors' and exhibitors' intentions, thus whether they intend to participate again in the future. As far as the use of this device is concerned, there does not seem to be any major difference between Italian and Chinese brochures; in fact, one similarity concerning this section is that in both cultures it is more frequent in post-show reports than in promotional brochures.

Step 3: Statistics from previous editions

Among the devices employed to establish credentials, all the sections containing statistics from previous editions of the trade fair can be regarded as mandatory elements of this specific genre as they are always present in this kind of texts. These sections contribute to improve the overall image of the trade fair and provide details on the successfulness of the event and can be said to be constitute a rather *logos*-oriented devices used in both languages. They usually refer to specific editions of the trade fair, in which case the reference is made explicit by indicating the year under analysis or through the use of expressions such as *i numeri della quinta edizione*, *i numeri del 2015*, 上届回额 and 2019年的展会分析.

Move 3: Describe the event

This move concerns all those descriptive and informative sections that are to be found in the main body of promotional brochures. Some interesting features regarding this move can be identified by looking at the descriptions of the event.

Step 1: Descriptions of the trade fair and related activities

The abovesaid descriptive and informative sections are used to provide details about the trade fair or the events and activities that are going to take place during the trade show. One thing that needs to be pointed out is that promotional brochures of trade fairs in the food-sector usually contain little portions of text: as explained in Chapter 2, there appears to be some sort of preference for a more schematic way of giving information, with these sections being the only discursive parts. Nevertheless, the analysis of these items has led to the identification of one major similarity between Italian and Chinese promotional brochures. In both languages, these sections emphasize the idea that the trade fair, as well as all the related activities and events, has been expressly organized for a target audience, such as experts in a given sector: trade fairs, which by their nature usually address more people, are therefore seen as an opportunity given to the individual, and this perspective allows for a closer involvement of the reader. In particular, this purpose is achieved in both languages with the use of a fixed pattern, namely:

- **Italian**: noun + past participle + preposition + noun
- **Chinese**: 为/向 + noun + verb + noun

Some concordances are provided below in order to illustrate how these structures work in Italian and Chinese and how they are used in the texts collected: ...Fiere Agrisphera è un market place dedicato agli operatori della filiera agroalimentare...
 ...dell'evento prevede inoltre azioni rivolte agli operatori del settore: Distribuzione...
 ...tali da poter diversificare le aree destinate alle numerose e varie iniziative in programma...
 ...aggiornamento con spazi editoriali riservati alle aziende espositrici Comunicazione...

Table 10 Selected occurrences of the structure in the Italian corpus.

…<u>优质</u>的买家到展会现场,向他们提供固定洽谈位,通过展前于现场…
 …论坛将为广大园艺行业企业呈现果蔬商业,技术交流形势的全景图…
 …合作机遇,为新价值提供支持,为中小企业打造未来改革之路…
 …从客户<u>利益</u>出发,<u>满足</u>客户需求,为其创造最大的价值。</s><s> 继续<u>改进</u>…

Table 11 Selected occurrences of the structure in the Chinese corpus.

Step 2: Trade fair character

This step refers to an aspect that was identified by manually comparing the brochures: Chinese promotional brochures appear to place emphasis on the national/regional character of the event that is being described. While in the Italian brochures the stress is only on the international origin of visitors and exhibitors, 3 Chinese brochures out of the 10 collected also focus on the national/regional origin of visitors and exhibitors, displaying a selfstanding section named 国内观众来自地区分布 or 国内观众地区分布, as shown in the figure below:

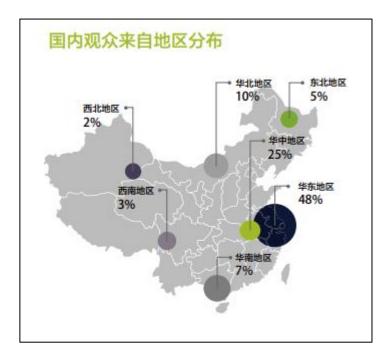


Figure 10 National character stressed in one of the Chinese brochures collected.

The purpose of this section is clearly indicated by the term 国内, literally 'internal' or 'domestic', while the map of the country is divided into regions, such as Northeast China and Southern China. This divergence between Italian and Chinese brochures is probably due to a major difference between the general practice in the two countries as far as the ways in which surveys on trade fairs are carried out and reported on, i.e. that this specific type of data is probably not collected in Italian trade fairs and on-spot statistics are concerned only with the international dimension of the event. Even though this difference may not have major direct implications, it does suggest some directions in terms of cross-cultural use and translation of promotional brochures. This aspect, in fact, could be exploited in the promotion of Made in Italy products with reference to the Italian region they belong to: it is common knowledge that regions in Italy are different among each other not only in terms of language and culture, but also and above all in terms of food and traditional dishes. Furthermore, this specific type of data could also be employed as a way to balance the percentages of participants from each region of the country in an attempt to encourage participation in future editions of the trade fair by those regions who might have been less present in previous editions.

Move 4: Establish business relationships

Apart from few exceptions in the Italian texts, this specific move was found almost exclusively in Chinese promotional brochures. As demonstrated by Zhu (2013), Chinese business communication appears to focus not only on promoting products, but also and above all on establishing long-term business relationships. Chinese brochures are made more personal by means of a more direct tone and a greater use of pronouns. Furthermore, language plays are also employed to attract potential customers' attention.

Step 1: Direct and personal tone

The devices employed in Chinese brochures to address the reader include the use of certain sentences that can be found on the front cover or the last page of the brochures, as shown in Table 12:

Italian	Chinese
 Welcome to Foodland! Ci vediamo a New York Arrivederci al 2019 	- 明年再相见 - 2014 年 , 我们 期待 您 的 到来 - 我们期待与您再次相会!

Table 12 Some of the sentences identified on the front or back pages of the Italian and Chinese brochures collected.

These sentences aim at a deeper involvement of the reader, and especially in Chinese the reference is made explicit by the use of the 2^{nd} person singular pronoun.

Another interesting feature found in the Chinese texts is the use of the verb 让 and of exclamation marks as these elements are both employed to introduce a sort of encouragement that is addressed to the whole community as well as the single individual, as shown by the use of the pronouns 您 'you' and 我们 'us':

- 让您的产品成为果蔬行业国际舞台上的明星
- 让我们携手, 打造一个更加环保的未来!
- 城市,让生活更美好

Such a personal and direct tone can also be found in the last page of promotional brochures, which, as explained in Chapter 2, typically contain contact information. In Chinese, these sections display the use of the verbs 请 qing2 and 敬请 jing4qing2 ('please'), which are both a polite form of inviting the reader to get in touch with the organizing bodies. Conversely, in the Italian brochures, these sections are more impersonal as they are signaled by expressions such as *Per informazioni*, *Contatti* e *Segreteria organizzativa* or by the name of the organizing bodies, and only 1 Italian brochure displays the use of the imperative *Contattateci*, as shown in Table 13.

Italian	Chinese	
Per informazioni	详细咨询请联系	
Contatti	专业观众报名请扫描下方二维码	
Segreteria organizzativa	扫一扫,关注官方微信号	
Organizzazione	标注占位升级,家俱租赁,喷绘,双语 手册印刷,翻译及其他服务,请致信 chinafvf@chgie.com	
Contattateci	联系我们	

Table 13 Some of the ways in which Italian and Chinese brochures signal contact information.

Step 2: Use of pronouns

Apart from the use of 1st person plural pronouns that has already been discussed above, Chinese brochures also make greater use of the 2nd person singular pronoun, as shown in Table 13.

Italian	Frequency	Chinese	Frequency
noi	7	我们	46
uno	7	您	34
questo	5	其	9
ciò	2	这	7
tutti	2	他们	4
quello	2	我	4
quelle	2	什么	3
altre	1	她	3
quelli	1	自己	2
tutto	1	他	2
queste	1	它	2
altri	1	这里	2
una	1	那边	1
molti	1	你们	1
coloro	1	自我	1

Table 14 Adverb lists generated for the Italian and the Chinese corpora on Sketch Engine.

In particular, the use of the honorific 您 nin2, as opposed to the more informal 你 ni2, indicates formal politeness and a way to create a linguistic distance to show respect for the reader, as argued in (Chen, 1991; Gu, 1995; Zhu, 2000). As argued by Myers (1994), "the use of the 2nd person pronoun contributes to making customers feel the message is directed at them individually, building familiarity with the use of the pronoun" (52).

[…] <u>解决 方案</u> 助您 业务 <u>增长</u> : 在 柏林,	您	就是 主角 专业 观众 希望 亲眼 见…
…并通过我们的国际商易网络触达	您	所需的全球市场。 <s>我们的[…]</s>
··· <u>丰富</u> 的行业经验与资源,我们能将	您	的想法转化为可行的计划···
···产业应用的交流盛会。 <s></s>	您	<u>不容错过</u> 的行业盛会 大量商业 <u>机会</u>

Table 15 Selected occurrences of 您 in the Chinese corpus.

In the Italian brochures collected, conversely, the message appears to be much more impersonal as the 2nd singular person pronoun is less used. Furthermore, this specific feature was found only in 1 brochure, while in other 2 brochures the reader is addressed with the use of the imperative, as shown below:

- Italiano: Cibus ti aspetta nella Food Valley che, con il maggior numero [...]
- Tutto ciò di cui hai bisogno durante la fiera, dalle informazioni utili all'agenda [...]
- Cerca i migliori prodotti italiani, trova i fornitori perfetti, inserisci le tue richieste.

Step 3: Use of language play

In addition to the more personal and direct tone as well as the greater use of pronouns, within the Chinese brochures a few instances of language play were identified, that is "lexical devices used to attract the attention of the reader through witty expressions [...]" (Labrador et al., 2014: 45). These elements are particularly characteristic of the Chinese language as they are used as a sort of motto: they come in a concise form, since each single character only has one single referent, and they display a well-defined structure, as characters are distributed in rows and the same number of characters is used in each row. Another aspect that needs to be pointed out is that, as is the case with the language play shown in Figure 5, these elements sometimes contain an explicit reference to the company itself. In Figure 5, the characters 万, 耀, 企 and 龙 do have a positive connotation per se, but they also constitute the very Chinese name of the VNU Exhibitions Asia LTD group, i.e. 万耀企 龙展览有限公司; furthermore, in this case providing a translation for this element would be a very complex task, and it is interesting to notice that in the VNU bilingual brochure (English and Chinese), the translation is in fact not provided. Below are the screenshots of these items from the brochures they were found in, together with the meaning of each character in order to give an idea of the positive messages behind these elements:



Figure 11 One of the language plays found in the 2020 Berlin Fruit and Veg Trade Fair brochure.

万	众	瞩	目
Thousand	People	To look	Eye
您	为	焦	点
You (hon.)	As	Focus	Point

Table 16 Character segmentation of the language play in Figure 11.



Figure 12 One of the language plays found in the 2020 Berlin Fruit and Veg Trade Fair brochure.

良	机	在	握:
Good	Opportunity	To be	To grasp
连	续	Ξ	天
To link	To continue	Three	Day
全	球	瞩	田
Entire	Globe	To look	Eye

Table 17 Character segmentation of the language play in Figure 12.



Figure 7 Language play found in a promotional brochure issued by VNU Exhibitions Asia LTD.

万	耀	正	道	企	龙	正	<u>\</u>
Thousand	To shine	Right	Path	Company	Dragon	Right	Business
숲	展	中	E	至	大	至	冈川
Conference	Exhibitions	(China)	(China)	Extremely	Big	Extremely	Strong

Table 18 Character segmentation of the word play in Figure 7.

4.2 Computer-assisted translation and automatic translation

This section presents the comparison of the computer-assisted translation and automatic translation of Macfrut 2020 Fruit and Veg Professional Show brochure from Italian into Chinese. The texts this section refers to can be found in Appendix, and are respectively the proofread computer-assisted translation, the automatic output of Google NMT system, and Macfrut 2020 Fruit and Veg Professional Show brochure. The aim of this comparison is to provide a general overview of the state of machine translation between Italian and Chinese, within the limits of the engine used, and evaluate the machine output while also taking into consideration the cultural aspects described in the genre analysis.

The computer-assisted translation was carried out in SDL Trados Studio with the help of the translation resources created, as described in Chapter 3; as for the automatic translation, the brochure was translated with Google Translate. Since Google NMT system appears to be rather sensitive to changes in the source text, one aspect that needs to be pointed out about the automatic translation is that the brochure was translated with the document translation function offered by the online engine. This means that if the brochure was to be retranslated chunks by chunks, the system would most likely yield a different result from the one obtained with the document translation function, which of represents an aspect that needs to be taken into account. The output generated by Google Neural Machine Translation system was judged to be acceptable. The engine provided grammatically correct structures and, with a view to reducing translation turnaround time and costs, it offered a first draft to which a medium level of post-editing was applied. Some major difficulties in translating from Italian into Chinese mainly concern sentence length and word order. The system appears to perform better on chunks of language rather than whole sentences and the reason behind this also involves word order since the longer the sentence, the higher the probability that the order of words within the sentence is not correct. In the translation of the brochure selected, the engine would usually provide a literal translation and maintain the Italian word order and syntactic structure, as shown in the examples below:

Source text	Google NMT output	Computer-assisted translation
MACFRUTACQUACAMPUS è un progetto in collaborazione con ANBI - AssociazioneNazionaleConsorzi di gestione e tutela del territorio e acque irrigue.	MACFRUT 水校园 是一个合作项目与 ANBI- 全国协会管理和保护财团 领土和灌溉水域。	MACFRUT 灌溉水 该展会是与 ANBI 国家土 地灌溉水保护和管理联合 会的合作项目。
Quest'ultima è l'effetto dell'elevata qualità della vita, associata al valore delle produzioni della terra, rispettose delle tradizioni e compatibili con uno sfruttamento non intensivo del territorio.	后者是高质量的效果与产 品价值相关的生命尊重传 统并与剥削兼容不密集的 领土。	提高生活质量,选用优质 食材,注重农业生产的价 值,尊重传统且适度开发 土地资源。
I buyer ed operatori specializzati, provenienti da oltre 50 Paesi, sono professionisti del settore con un elevato potere decisionale e capacità di negoziazione in fiera.	买家和经营者专业,来来 自 50 多个国家他们是专 业人士该部门的高决策力 和能力交易会上的谈判。	来自 50 多个国家的买家 和专业运营商均为业内人 士,他们展会上具备强大 的决策权和谈判能力。

Table 19 Examples of incorrect word order in the machine output of Google Translate.

There are some cases in which the mistakes made by the engine appear to depend on the texts that it has been trained on. As shown in Table 20, there was one case where Google suggested an alternative between 国家 and 地区, namely countries and territories, which is

an element that has been found in Chinese brochure when signaling visitors' and exhibitors' origin. Furthermore, apart from the aspect of trade fair names that has already been discussed above, the phonetic translation of *Macfrut* provided by Google also probably depends on the fact that this translation has already been used before, also suggested by the fact that in one occurrence that Italian name of the trade fair is place in brackets after the Chinese translation. Nevertheless, the engine is not consistent in the use of either options and simply outputs the Italian name in most cases.

Source text	Google NMT output	Computer-assisted translation
Macfrut è la fiera internazionale della filiera ortofrutticola, un evento B2B per professionisti del settore ed opinion leader provenienti da oltre 90 Paesi.	麦克弗鲁特(Macfrut) 是水果和蔬菜供应链, B2B 活动行业专业人士和 意见领袖来自 90 多个国 家/地区。	意大利里米尼国际水果蔬 菜展(Macfrut)专为来自 90 多个国家的业内人士与行 业有影响力者举办的 B2B 贸易展。
Macfrut si conferma un punto di riferimento perché riunisce i player del settore, le novità e le tendenze del mercato, fornendo una piattaforma di business unica per ampliare la propria rete di contatti commerciali verso nuovi mercati.	Macfrut 被确认为参考点 因为它汇集了该行业的参 与者,市场新闻和趋势, 提供我给一个单一的商务 平台扩大您的联系网络商 业化到新市场。	Macfrut 汇集该行业的主 角、市场新品和趋势,是 扩大业务关系、拓展新的 市场的独特商业平台。

Table 20 Examples of inconsistency in the translation of the Italian trade fair name.

Another interesting aspect concerns the translation of nominal sentences in the source text. As shown in Table 21, in the first example Google provided a good-quality output by suggesting a recurring structure that is frequently used in Chinese trade fair promotional brochures, namely 本/该 + noun + 将 + 提供. However, this is another aspect the engine is consistent with since in the second example a literal translation was provided instead.

Source text	Google NMT output	Computer-assisted translation
Un ricco programma di Visite Guidate organizzate e condotte da esperti del settore.	该活动将提供一个由业内 专家组织和进行的丰富的 导游计划。	本次展会将提供一个由行 业专家组织的丰富的指导 参观行程。
Uno spazio interattivo e dinamico visitabile all'interno dei padiglioni per studiare da vicino un settore in forte crescita.	互动空间展馆内充满活力 密切研究快速发展的行 业。	展馆内可参观这一动态互 动区,以加深对这一迅速 增长的领域的了解。

Table 21 Examples of translation of nominal sentences in the source text.

Lastly, there was one instance where some ambiguities in the source text represented a major difficulty for the system. In the computer-assisted translations these problems were dealt with by preferring a rewording of the sentence over a literal translation, which is something that machine translation engines at the present time cannot still perform. The examples provided in Table 22 also points out the errors in the translation of the acronym DOP, which in one case was translated with the English acronym PDO, whereas in Chinese the correct version is represented by the Italian $acronym + \Im$, literally 'level'.

Source text	Google NMT output	Computer-assisted translation
Al centro del Mediterraneo, la Sardegna si caratterizza per le produzioni agricole di qualità, come il Carciofo Spinoso di Sardegna DOP e lo Zafferano di Sardegna DOP, fattori di benessere e longevità attiva.	在地中海中部,撒丁岛农 业生产的特点是品质,例 如 Sar-多刺朝鲜蓟值得 DOP 和撒丁岛藏红花 PDO,幸福感和长寿的因 素。	撒丁岛位于地中海的中 心,以优质的农业产品为 特色,如DOP级撒丁岛洋 蓟和 DOP 级撒丁岛藏红 花,这些食材有助于健康长 寿。
Quest'ultima è l'effetto dell'elevata qualità della vita, associata al valore delle produzioni della terra, rispettose delle tradizioni e compatibili con uno sfruttamento non intensivo del territorio.	后者是高质量的效果与产 品价值相关的生命尊重传 统并与剥削兼容不密集的 领土。	提高生活质量,选用优质 食材,注重农业生产的价 值,尊重传统且适度开发 土地资源。

Table 22 Examples of how ambiguities in the source text have been dealt with in the MT output and the computer-assisted translation.

4.3 Summing up

As suggested by the analysis presented in this chapter, Italian and Chinese promotional brochures of trade fairs in the food sector appear to have the same communicative functions in terms of business and promotion: this divergence, as in Zhu's study of English and Chinese business faxes (2013), can be explained by the fact that the business world is characterized by market economy and competition, and that companies therefore tend to face similar challenges. This means that, to a certain extent, it can be said that there is a clear overlap between the two contexts and cultures in which this specific textual genre is produced and interpreted. Nevertheless, Chinese brochures do appear to achieve their social purposes in ways that can be rarely identified in Italian brochures, that is building long-term business relationships by directly addressing the reader and making the message more personal, which confirms the findings that Chinese rhetoric and persuasive practices also emphasize the function of *pathos* or *qing*. Implications and suggestions deriving from this analysis are discussed in the Conclusion section.

Conclusion

The present thesis has focused on two main aspects, namely machine translation between Italian and Chinese and cross-cultural genre analysis, in the broader framework of intercultural business communication. In the practical part two case studies have been presented: in the first, the brochure of an Italian trade fair of the food sector has been manually and automatically translated, post-edited and reviewed by a native speaker expert, and the two outputs have then been compared; in the second scenario, Italian and Chinese promotional brochures of trade fairs in the food sector have been compared in order to investigate cross-cultural differences and similarities in terms of communication purposes and rhetorical practices.

For what concerns machine translation between Italian and Chinese, the quality of the output obtained from the engine used in this study, namely Google Neural Machine Translation system, was judged to be fair, since only a medium-level post editing was applied. In the translation from Italian into Chinese, the system appears to have some major difficulties with long sentences and word order within sentences: translation quality appears to be higher for shorter sentences or even chunks, while when translating from Italian into Chinese the system tends to maintain the Italian word order. Overall, Google Translate is still able to provide grammatically correct solutions and thus a first draft on which the required level of post-editing can then be applied. The implications of the use of machine translation for Italian and Chinese in the business field and in companies lie mainly in the fact that machine translation output and the level of post-editing required need to be evaluated by a professional with specific skills. Because of this necessity, nowadays companies are not very likely to independently leverage machine translation, and still need to outsource language-related tasks or rely on internal professionals with language skills and cultural competences. However, given the progress in terms of MT output quality made in recent years, machine translation systems can nowadays be used in real-life work situations, either as an aid to human translation or as an initial step in the workflow (sometimes as part of computer-assisted translation environments) in order to reduce costs and turn-around time. This perspective could be taken into consideration by both companies and translation agencies since machine translation could be used by the former to accomplish some language-related tasks (for instance, for internal consumption), and by the latter as a service offered to translators and end-users/clients.

One major drawback that cannot be neglected is that, as shown by the genre analysis presented in Chapter 4, translating a promotional brochure into a different language involves not only linguistic knowledge, but also awareness of communication purposes and rhetoric practices, which are aspects that cannot at the present time be taken into account by machine translation systems.

As far as future research directions on MT between Italian and Chinese are concerned, more emphasis should be placed on how machine translation systems deal with cultureoriented aspects with the aim of a deeper integration of MT systems in the workflow and greater use in the business field. Finally, other options in addition to post-editing, namely pre-editing and controlled language, could be explored. While these methods would most likely simplify the source text and reduce the effect of their advertising function, they may still represent not an alternative to post-editing, but rather an additional way to reduce machine translation errors and obtain a first draft of acceptable quality.

As regards genre analysis, the move-and-step comparison of Italian and Chinese promotional brochures has revealed that there are many similarities in terms of communicative situations and purposes, and that this textual genre can therefore be said to show a certain overlap across the two cultures. This divergence may be explained by the fact that business companies face similar challenges at the global level, such as creating a positive image of the producer and the product in order to keep up with competition, which the analysis has identified as the main objective in promotional brochures. However, it has been found that Chinese brochures do contain an additional move defined in the literature as "establishing business relationships", which is achieved by making the message more personal, to involve readers and attract their attention. This result confirms previous findings on the differences in intercultural business communication styles, in particular the fact that Chinese business communication tends to encompass *pathos* or *qing*, that is the emotional approach, at a further level. This finding is particularly important when looking at future directions in terms of translation and production of promotional brochures in intercultural business communication. Considering the overall differences that have been found between Italian and Chinese promotional brochures, apart from the advertising purpose more emphasis should be placed on establishing relationships and interacting with the reader. Possible implications in the translation of this kind of texts from Italian into Chinese mainly concern the tone of the message, which should be made more personal by addressing the reader in a polite way, and the translation of the trade fair name, an aspect that should be carefully considered by companies as it may be exploited as an effective marketing strategy.

One aspect that has already been pointed out in Chapter 4 and that needs to be highlighted again is that this study is only concerned with promotional brochures of trade fairs in the food sector. This implies that the findings may not apply to trade fairs of other sectors or brochures that promote different entities, such as products or companies. Indeed, it would be very interesting to extend the analysis to other kinds of brochures in order to analyze how their functions change according to the object they promote in terms of both linguistic features and persuasion practices.

In conclusion, given the importance that the field of intercultural business communication has come to achieve nowadays, more emphasis should be put on crosscultural genre studies: identifying the social functions that texts serve in the cultural contexts in which they are produced and employed would, in fact, improve business communication between companies in the international arena and contribute to a fair rendering of communication purposes across cultures, which is, after all, the very aim of the act of translation.

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Appendix

Italian-Chinese revised computer-assisted translation of Macfrut 2020 brochure

果蔬专业展览会

展会日期: 2020年05月05日-2020年05月07日

展会地点: 意大利里米尼会展中心

主办方:Cesena Fiera, macfrut.com

意大利里米尼国际水果蔬菜展(Macfrut)专为来自 90 多个国家的业内人士与行业有影响力者举办的 B2B 贸易展。Macfrut 汇集该行业的主角、市场新品和趋势,是扩大业务关系、拓展新的市场的独特商业平台。

2019 年展会数据

43.500 参观人次,其中 25% 为国际参展观众

50% 来自欧洲

17% 来自中美洲和南美洲

14% 来自东欧和俄罗斯

10% 来自北非和撒哈拉以南非洲

5% 来自远东

4%来自中东

1.000 家参展商,其中 20%为外国人

参展商(按行业)

果蔬生产及营销

分选包装机械及技术

包装材料

物流及服务

果蔬产品种植机械及设备

苗圃及种子

农药及化肥

生物刺激素国际盛会

该展会是专为生产生物刺激素的企业而设立的国际展会,专门针对该行业的农业企业家和技术人员。本次展会将提供一个由行业专家组织的丰富的指导参观行程。此次国际盛会致力于地中海生产供应链企业与生物刺激素行业之间的交流。

MACFRUT 灌溉水

该展会是与 ANBI 国家土地灌溉水保护和管理联合会的合作项目。展馆内将创建一 个灌溉领域的创新和技术的动态区。该动态区分为一个展区以及一个在现场用于展 示园艺水资源管理的最先进技术的测试场地。

MACFRUT 场地解决方案

在为期3天的活动中,该展会将在试验场地上现场展示最先进的园艺机械技术。参观 者还将通过展会深入了解如何提高生产率、优化生产成本以及减少环境影响的研究 系统。

热带水果盛会

热带水果盛会已连续举办3届,是欧洲独一无二的热带水果盛会。基于全球对热带 水果的需求增加,本次活动通过专家、顶级买家和国际生产商的参与来深化分析市 场和贸易趋势、消费、科学发展以及热带产品的销售策略。

温室科技村

温室科技村是一个应用于温室园艺最现代科技的专门园区。展馆内可参观这一动态 互动区,以加深对这一迅速增长的领域的了解。如今,优化利用自然资源越来越具有 战略意义,其原因为温室作物能够优化用水量、化学肥料和农药的使用,同时还可 减少对环境的影响。

B2B 会议日程

所有参展商都可以通过 B2B 贸易平台与受邀买家安排会议。来自 50 多个国家的买家和专业运营商均为业内人士,他们展会上具备强大的决策权和谈判能力。

撒丁岛地区合作伙伴

撒丁岛位于地中海的中心,以优质的农业产品为特色,如 DOP 级撒丁岛洋蓟和 DOP 级撒丁岛藏红花,这些食材有助于健康长寿。提高生活质量,选用优质食材,注 重农业生产的价值,尊重传统且适度开发土地资源。

供应链展会及商业平台

活动 & 合作伙伴

马可波罗之路上的水果及香料

该活动聚焦于中亚和印度洋的新兴市场,还将满足许多国家对果蔬和香料日益增长 的需求。这些领域还为技术、包装和机械制造商提供不可错过的商机。

国际草莓讨论会

32 年后,国际草莓研讨会将重新举办。国际园艺科学协会(ISHS)将于 2020 年 5 月 2 日至 5 日在里米尼会议中心举行一系列会议,5 月 6 日将在 Macfrut 展馆内举行。

国际番茄大赛

国际番茄大赛之际众多业内人士和种子公司及生产者将展示出最佳的国际产品。 Macfrut 展览会期间专家评审团将选出优胜者并举办颁奖仪式。展会还将特设一个专 门用来展示出参赛的番茄品种的展示区域。

香辛料、药用植物和植物香料专业展会

展会汇聚

生产商、技术人员、研究人员、贸易商和加工商

意大利里米尼会展中心

2020年5月5-6-7日

合作伙伴 Macfrut 2020

我们的位置

里米尼会展中心

地址: Via Emilia, 155 – Rimini – Italia

info@macfrut.com, macfrut.com

主办方 CESENA FIERA 股份有限公司

地址: Via Dismano, 3845 - 47522 Cesena (FC) – Italia - 电话: +39 0547 317435

主要赞助商和商业伙伴 CRÉDIT AGRICOLE

Italian→Chinese automatic translation of Macfrut 2020 brochure with Google Neural Machine Translation engine

水果蔬菜专业表演

2020年5月5日星期二-6日星期三-4日星期四

RIMINI-世博中心- 意大利

主办单位 Cesena Fiera, macfrut.com

麦克弗鲁特(Macfrut)是水果和蔬菜供应链,B2B活动行业专业人士和意见领袖来 自 90 多个国家/地区。Macfrut 被确认为参考点因为它汇集了该行业的参与者,市场 新闻和趋势,提供我给一个单一的商务平台扩大您的联系网络商业化到新市场。

2019 版数字

43.500 访客 25%国际

50% 欧洲

17% 中南美洲

14% 东欧和俄罗斯

10% 北非和撒哈拉以南非洲

5% 远东

4% 中东地区

1,000 名参展商 20% 外国人

参展商(按行业)

水果和蔬菜的生产和营销 39%

机器和技术选择和包装 17%

包装及包装材料 14%

物流与服务 13%

耕种机械水果和蔬菜 7%

苗圃和种子 5%

农产品和肥料 5%

生物进化国际活动

在一个国际展览中表达保留给生产的公司生物刺激剂,针对农业企业家和该领域的 技术人员。该活动将提供一个由业内专家组织和进行的丰富的导游计划。国际大会 致力于供应链之间的会议地中海产区以及生物兴奋剂的世界。

MACFRUT 水校园

是一个合作项目与 ANBI-全国协会管理和保护财团领土和灌溉水域。展馆内将创建 一个动态区域完全打算创新和技术应用于领域灌溉,分为展览区和试验场说明最生 动的先进技术水资源管理应用于园艺。,

MACFRUT 现场解决方案

博览会将举办测试场,在3天之内活动将受到欢迎最现场的示范先进技术园艺技工。

特别是,他们将加深研究的系统为了提高生产力,优化生产成本减少环境影响。

热带水果大会

现在已经是第三版了这是欧洲的独特事件致力于异国水果。该事件探究趋势市场, 消费,贸易趋势,科学发展,销售策略奇特产品,市场需求日益增加通过专家的参 与,实现全球性顶级买家和国际生产商。

温室科技村

是致力于最现代技术的领域应用于温室园艺。

互动空间展馆内充满活力密切研究快速发展的行业。

更好地利用自然资源的好处在于由于农作物变得越来越具有战略意义在温室下,他 们能够优化用水量和使用化学肥料,同时减少影响由于减少了农药的使用,对环境 产生了影响。

B2B 会议议程

所有参展商他们可以准备他们的参与在公平的固定会议上与受邀买家, 多亏了平台 专用的 B2B。

买家和经营者专业,来来自 50 多个国家他们是专业人士该部门的高决策力和能力交易会上的谈判。

伙伴地区撒丁岛

在地中海中部,撒丁岛农业生产的特点是品质,例如 Sar-多刺朝鲜蓟

值得 DOP 和撒丁岛藏红花 PDO, 幸福感和长寿的因素。

后者是高质量的效果与产品价值相关的生命尊重传统并与剥削兼容不密集的领土。

活动 & 合作伙伴

在马可波罗的路线上

聚焦市场从中亚崛起和印度洋。贸易路线相遇这里有许多快速成长的国家从需求的 角度来看水果和蔬菜以及香料。这些地区保留着巨大的机会也为生产者提供业务技 术,包装和机械。

国际草莓研讨会

国际草莓研讨会 32 年后返回意大利。该事件国际园艺科学学会(ISHS)

将会看到一系列会议于 2020 年 5 月 2 日至 5 日在里米尼宫举行最后一天是 5 月 6 日在 Macfrut 之际在展厅里。

国际番茄大赛

世界番茄冠军该领域有众多参与者,

种子生产者和公司,将呈现最好的国际生产。

专家评审团将选出获胜者将在 Macfrut 期间颁发。

博览会内的专用区域将举办展览与番茄品种竞争。

致力于香料世界的沙龙,药用和芳香草药

集合点生产者,技术人员,研究人员,贸易商和变压器之间

2020年5月7日56

在一起 Macfrut 2020

我们在哪里

RIMINI 博览中心

Via Emilia, 155-里米尼-意大利

info@macfrut.com, macfrut.com

主办单位 CESENA FIERA SpA

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主要赞助商和业务伙伴 CRÉDIT AGRICOLE



Fruit & Veg Professional Show

Martedì 5 - Mercoledì 6 - Giovedì 7 MAGGIO 2020 RIMINI - EXPO CENTRE - ITALIA

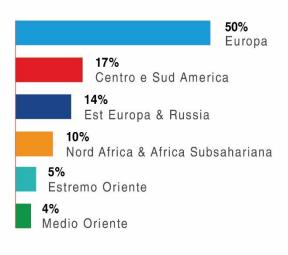
ORGANIZZATO DA CESENA • FIERA

macfrut.com



I numeri dell'edizione 2019

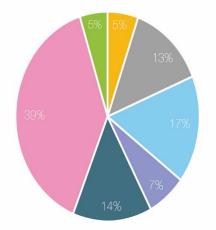
43.500 VISITATORI 25% Internazionali



Macfrut è la fiera internazionale della filiera ortofrutticola, un evento B2B per professionisti del settore ed opinion leader provenienti da oltre 90 Paesi.

Macfrut si conferma un punto di riferimento perché riunisce i player del settore, le novità e le tendenze del mercato, fornendo una piattaforma di business unica per ampliare la propria rete di contatti commerciali verso nuovi mercati.

1.000 ESPOSITORI 20% Stranieri



ESPOSITORI PER SETTORE

- produzione e commercializzazione ortofrutticoli 39%
- MACCHINARI E TECNOLOGIE PER LA SELEZIONE 17%
- PACKAGING E MATERIALI PER IL CONFEZIONAMENTO 14%
 - logistica e servizi 13%
- MACCHINARI ED IMPIANTI PER LA COLTIVAZIONE 7%
- VIVAISMO E SEMENTI 5%
- agrofarmaci e fertilizzanti 5%



Fiera di filiera



BIOSTIMULANT INTERNATIONAL EVENT

si articola in un Salone internazionale riservato alle aziende che producono biostimolanti e rivolto agli imprenditori agricoli e ai tecnici del settore.

Un ricco programma di Visite Guidate organizzate e condotte da esperti del settore. Il Congresso Internazionale dedicato all'incontro fra le filiere produttive del Mediterraneo ed il mondo dei biostimolanti.



TROPICAL FRUIT CONGRESS

giunto alla 3° edizione consecutiva, è un appuntamento unico in Europa dedicato alla frutta esotica. L'evento approfondisce le tendenze del mercato, consumi, trend del commercio, gli sviluppi scientifici, sales strategy dei prodotti esotici, sempre più richiesti nel mercato globale tramite il coinvolgimento di esperti, top buyer e produttori internazionali.



MACFRUT ACQUA CAMPUS è un progetto in collaborazione con ANBI - Associazione Nazionale Consorzi di gestione e tutela del territorio e acque irrigue. All'interno dei padiglioni verrà realizzata un'area dinamica interamente destinata alle innovazioni e alle tecnologie applicate al campo dell'irrigazione, articolato in un'area espositiva e un campo prova per illustrare dal vivo le più avanzate tecnologie per la gestione delle risorse idriche applicate all'orticoltura.



MACFRUT FIELD SOLUTIONS

La fiera ospiterà un campo prova, che nei 3 giorni di manifestazione accoglierà le dimostrazioni live delle più avanzate tecnologie meccaniche per l'orticoltura. In particolare, si potranno approfondire i sistemi studiati per migliorare la produttività, ottimizzare i costi di produzione e ridurre l'impatto ambientale.



GREENHOUSE TECHNOLOGY VILLAGE

è un'area dedicata alle più moderne tecnologie applicate all'orticoltura in serra. Uno spazio interattivo e dinamico visitabile all'interno dei padiglioni per studiare da vicino un settore in forte crescita. I benefici di un miglior utilizzo delle risorse naturali stanno diventando sempre più strategici, poiché le coltivazioni sotto serra sono in grado di ottimizzare il consumo d'acqua e l'utilizzo di fertilizzanti chimici, mentre riducono l'impatto ambientale grazie ad un ridotto uso di pesticidi.



e piattaforma d'affari



B2B MEETING AGENDA

Tutti gli espositori potranno preparare la loro partecipazione alla fiera fissando incontri con buyer invitati, grazie alla piattaforma B2B dedicata. I buyer ed operatori specializzati, provenienti da oltre 50 Paesi, sono professionisti del settore con un elevato potere decisionale e capacità di negoziazione in fiera.



REGIONE PARTNER SARDEGNA

Al centro del Mediterraneo, la Sardegna si caratterizza per le produzioni agricole di qualità, come il Carciofo Spinoso di Sardegna DOP e lo Zafferano di Sardegna DOP, fattori di benessere e longevità attiva. Quest'ultima è l'effetto dell'elevata qualità della vita, associata al valore delle produzioni della terra, rispettose delle tradizioni e compatibili con uno sfruttamento non intensivo del territorio.





FRUIT & SPICES ON MARCO POLO'S ROUTE

Riflettori puntati sui mercati emergenti dell'Asia Centrale e dell'Oceano Indiano. Le rotte commerciali incontrano qui numerosi Paesi in forte crescita dal punto di vista della domanda sia di ortofrutta che di spezie. Queste aree riservano grandi opportunità d'affari anche per i produttori di tecnologie, packaging e macchinari.



INTERNATIONAL TOMATO CONTEST

Campionato mondiale del pomodoro dove numerosi player del settore, produttori e ditte sementiere, presenteranno il meglio della produzione internazionale. Una giuria di esperti selezionerà il vincitore che sarà premiato durante Macfrut. Un'area dedicata all'interno della fiera ospiterà una mostra con le varietà di pomodoro in gara.



INTERNATIONAL STRAWBERRY SYMPOSIUM

Il Simposio internazionale della fragola torna in Italia dopo 32 anni. L'evento della Società internazionale per la scienza orticola (ISHS) vedrà una serie di convegni al Palacongressi di Rimini dal 2 al 5 maggio 2020, con una giornata finale il 6 maggio nei padiglioni fieristici in occasione di Macfrut.













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MACFRUT 2020

ORGANIZZATO DA

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Le opportunità di lavoro sono riservate sempre		
ai migliori	胡兰波	胡兰波
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