

Examining Patent Translation from a Paratextual Perspective

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Paratexts are texts that are parts of a larger text, of the main text. The Preface and Index of a published book are paratexts, as are its dust jacket summaries and book reviews which are, of course, contributed by editors, publishers, and reviewers rather than by the primary author of the text. Paratexts are thus closely related to but still distinct from the main text. Patent application documents also fill a space that is outside the main text, a paratextual space filled with the names of new inventions and of their inventors, abstracts, descriptions of the new invention, bibliographic data, claims, and drawings. Despite minor differences in the formats used by various patent offices, patent applications contain a standard list of items, the most critical of which is a detailed description of the invention and what it claims to be able to do. This study examines the complexity of patent texts by analyzing paratexts and patent translation contexts, and exploring the ways in which titles, abstracts, and descriptions of patent applications are correlated with each other and with the main texts.

Keywords: patent translation, patent text, paratext, peritext, epitext

Received: December 9, 2014; Revised: April 3, 2015; Accepted: June 26, 2015

從側文本觀點探討專利翻譯

蔡毓芬

側文本為圍繞著主文以呈現主文的文字。側文本一詞原指由編輯、出版商、書評針對出版書籍所撰寫設計的前言、索引、護封、書評等，也就是作者本身創作以外的文字。這一類型的文字與主文相互呼應卻又相近相遠。專利申請文件，如同書籍般，有著文字以外的空間。這空間通常包含發明名稱、作者姓名、發明摘要、發明說明、書目資料、申請專利範圍、指定代表圖等。不同專利局在專利申請文件上的要求，除了格式上有些微差異外，基本內容標準化一，而最重要的文字莫過於申請專利範圍以及發明說明。本研究從側文本的觀點探討專利文字與專利翻譯，並分析側文本與主文之間的關聯。

關鍵詞：專利翻譯、專利文本、側文本、內文本、外文本

收件：2014年12月9日；修改：2015年4月3日；接受：2015年6月26日

Definition of Paratext

Nearly all texts exhibit surrounding texts that facilitate the presentation of the main text. These surrounding texts are called the paratext (Genette, 1997). The paratext serves as an “indeterminate zone” that allows the reader to “enter” or keep a distance from a piece of text. The concept of paratext, originally proposed by Gerard Genette, has been used to identify texts that modify or enhance a reader’s interaction with a primary text.

The original scope of the concept paratext was broad and referred to the preface, index, dust jacket summaries, and book reviews of a published book, which editors, publishers, and reviewers contributed, rather than the primary author of a text. Such texts are related to but distinct from the main text. Certain paratexts interact with the initial text from a distance, encouraging new reader interactions with the primary text, whereas others create new readings by directly modifying or interacting with the primary texts. They border the primary text, mediating the understanding and interactions of a reader approaching the primary text and frequently define the text that they reference (Burk, 2009, p. 4).

Genette classified numerous features that define the status of a paratextual message, namely, temporal, substantial, spatial, pragmatic, and functional features. The temporal status of a paratext refers to the appearance of the text or the date the text disappears. The temporal situation of a paratext can be defined in relation to that of the text. However, we do not discuss temporality, because it does not apply to patent texts. The substantial status of a paratext refers to the mode of its presentation; all paratexts are textual, sharing the linguistic conventions of the text. However, the paratextual value of a paratext can also assume other forms of expression such as drawings (Genette & Maclean, 1991, p. 265).

Spatial features involve the position of a text. Such paratexts are the title and preface at the beginning, and footnotes at the end. Genette referred to the text in this spatial category as the “peritext.” Texts that are situated outside the main text, such as interviews with the author, private correspondence, and journals, are called the “epitext.” The combination of these two constitutes the spatial field of the paratext (paratext = peritext + epitext; Genette & Maclean, 1991, pp. 263-264). In the case of patent texts, the paratext provides a perspective to the text; therefore, the situations each paratext addresses also apply. Genette stated: “An element of paratext...necessarily has a positioning” (Genette & Maclean, 1991, p. 263). A paratext reveals the significance of titles, abstracts, and drawings, because it determines the positioning of the text (Sujatha, 2009, p. 8).

The pragmatic status of a paratextual element is defined by the characteristics of its communicatory situation or case in point, such as the characteristic of an addresser/addressee, or the degree of authority. The addresser of a paratextual message is not necessarily the person who actually wrote it. The addresser is defined by putative attribution and by assumed responsibility, and the identity is irrelevant. In addition to the authorial paratext, an editorial paratext is common. The author and publisher, who are responsible for the text and paratext, respectively, may delegate partial responsibility to a third person, who writes a preface for the author (Genette & Maclean, 1991, p. 266).

The addressee of a paratext may be defined as the public; however, this definition is too unspecific. Although certain elements of the paratext are effectively addressed to the general public, such as the title, others are addressed more restrictively to the readers of the text alone, such as the preface. Both the peritext and epitext constitute public paratext. Private paratexts are addressed

to people who are not expected to make their content public. Paratexts that are intended for the author in a private message are considered intimate paratexts (Genette & Maclean, 1991, p. 267).

A simple inventory of peritextual items suggests a high number of involved authors and readers, including authors and implied authors, illustrators, editors, publishers, reviewers, and prominent persons. Several of these authors are identified and several remain anonymous; others have identities that are complex and problematic. Similarly, the identity of the implied reader of the peritextual material is complex (Jenkins, 2001). In the case of patents, paratexts are tacitly or explicitly created through joint decisions of inventors, applicants, companies, and patent offices and “are physically adjacent to and inseparable from the main text” (Jenkins, 2001, p. 115). They cooperate with the main text to make it effective and convincing.

Paratext involves various degrees of responsibility of the author and his or her associates. Genette & Maclean (1991) borrowed political terms for distinction and termed such responsibility “official” and “officious.” Any paratextual message for which the author or editor must assume responsibility is official. Thus, every aspect of paratext is official, regardless of whether its source is the author or the editor, and whether it is presented in the paratext such as the title, or the original preface. Most instances of authorial epitext, such as interviews and conversations, are officious, because the author can deny responsibility (Genette & Maclean, 1991, p. 267).

Paratext in all its forms is subordinate to the main text, and this status determines the fundamental constituents and the correlations of each paratext to the main text. In contrast to the characteristics of place, time, substance, and pragmatic status, the functions of paratext may not be described theoretically according to status. The combined spatial, temporal, substantial, and pragmatic

situation of a paratextual element is determined by free choice and applied to a general and constant grid of personal alternatives, of which it can either be classified as peritext or epitext. For example, a preface is necessarily peritextual, because it is original and subsequent or belated and authorial. This series of options or necessities rigidly defines the status of a paratext (Genette & Maclean, 1991, p. 269).

According to Genette's essay *Introduction to the Paratext*, published in 1991, which investigated features and implications of peritext, patent application documents seem to exhibit additional potential roles of peritext. This study examined the peritext and context of patent translations to investigate the complexity of patent texts and facilitate a multifaceted study of paratext.

The Paratext of Patent Documents

Patent application documents, similar to most books, contain space outside the main text. This space contains additional features such as titles, author names, abstracts, descriptions of inventions, bibliographic data, claims, and drawings. Despite minor variations in the formats used in different patent offices, patent applications contain a standard list of items, the most crucial of which is the detailed description of the invention and the claims (Hong, 2014). According to the significance and legal status of each part of the document, the main text of the patent application is the claims. The peritexts are the parts of the document that support, summarize, generalize, clarify, and illustrate the claims.

A patent application is accompanied by an extensive dossier. The World Intellectual Property Organization (WIPO) regulations state that patent documents should be consistent with a uniform order related to their format and physical characteristics to increase the informative value of patent documents,

facilitate their use, and facilitate the use of modern techniques in producing, storing, and distributing such documents. The WIPO glossary defines a patent application as “a document filed by the applicant or by an agent (representative) on his (its) behalf, requesting the grant of a patent. It usually contains a detailed description of the invention, the claims, and drawings when necessary for the understanding of the invention” (WIPO, 2011).

The presence of paratextual messages surrounding a text or paratext, and other codes and signs in a piece of text, do not merely exist, but may represent several levels of intentionality. These texts are created by someone under particular circumstances for particular reasons (Nelson, 1998). When correlating this definition with Genette’s features of paratextual messages, the fact that the application is filed by the applicant or by an agent serves various communicative purposes. The addresser (i.e., the applicant or the agent) addresses the authorities concerned with one intention: to be granted protection of patent rights. Although patent offices expect application documents to publicly disclose the merit of their inventions, the direct addressee of these documents is typically the patent examiner, who has the right to grant or waive the protection of patent rights. Therefore, instead of targeting the public, the patent information language is replete with technical terms and jargon that only experts in a specific field are likely to understand.

Novelty, inventive steps, industrial applicability, and sufficiency of disclosure of a claimed invention are examined. Patent information covers (a) technical information related to articles, products, processes, and uses, all described in the examples, drawings, and formulae of the patent documents; (b) legal status information related to whether the patent or other industrial property rights are in force and data from the patent register; and (c) bibliographic information related to published patent documents. The paratext

of patent information is textual and visual, featuring drawings and symbols.

The essential content of a patent application includes an abstract for informative purposes, full and detailed explanations of the invention, a request with bibliographic data, the claims that define the subject matter for which protection is sought, and drawings. A patent application should also contain basic information, such as a title for the invention, details of the applicant and the inventor, the International Patent Classification as well as the publication date and number. In addition, the cover information can contain technical information, such as a priority date, number, and country, applicant nationality and residency, and additional codes and numbers.

The title of the invention, as in any other type of text, appears at the beginning, followed by an abstract, the description of the invention, the claims, and finally, the drawings. Because the title is typically on the first page of a patent document, it should be informative. The wording of the title should be meaningful and concise and present all claims from various information sources where appropriate.

Similar to the preface or prologue of a book, an abstract is a pretext to the context of the patent document, which prepares the reader for the text that it introduces. An abstract informs the reader of the intention of a text, and in the case of patent texts, this intention customarily states the intention of the applicant. However, the intention of the patent office in publicly disclosing an abstract is to familiarize readers with the technical information and provide an efficient summary. On the basis of the abstract, a reader can decide whether to consult the patent document for further understanding of the invention. The abstract may contain chemical or mathematical formulae and tables, and should focus on any features that the invention introduces. However, the abstract is not intended to indicate the scope of the protection sought.

Despite minor variations in the formats used by different patent offices, patent applications include a standard list of items, of which the detailed description of the invention and the claims are the most crucial (Hong, 2014). As previously stated, claims are considered the core of a patent. Rule 5 of the regulations under the Patent Cooperation Treaty states that the description of the invention shall first state the title of the invention and specify the technical field to which the invention pertains. The description should also include a brief summary of the technical background of the invention and describe the essential features of the invention with reference to any accompanying drawings.

The description may include how to make and use the invention; the claims define the scope of legal protection, and should clearly and concisely define what type of protection is sought and its prior art.¹ This includes the optimal mode for conducting the claimed invention and how the invention can be industrially exploited (WIPO, 2011). The extent of the patent protection should be defined by the wording of the claims, which should be supported by the description and drawings, aiding the interpretation of the claims.

This study involved randomly selecting 20 sample patent documents and calculating the proportion of each paratext. According to our findings, the number of words in the description outweighs other parts of the patent document. Regardless of its importance in the application, the claim only accounts for 25% of the total paratext.

¹ Prior art refers to background information related to a patent's claims of originality available before patent application.

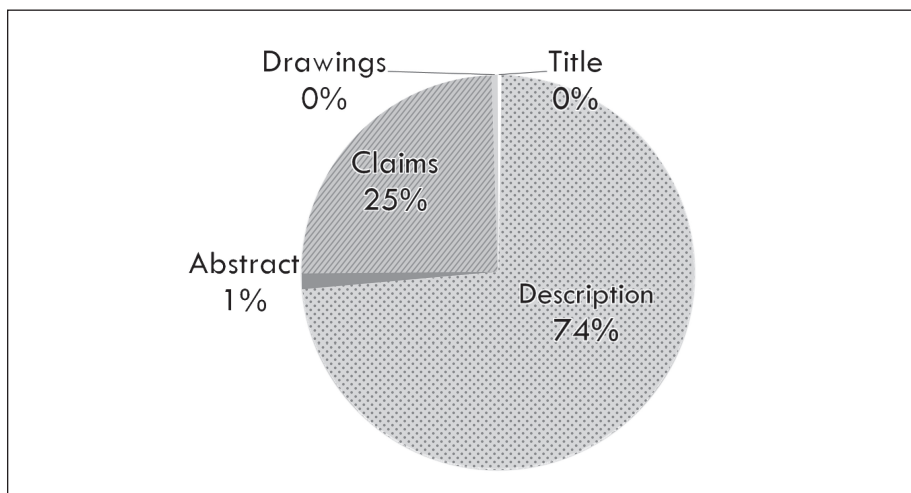


Figure 1. Number of words in each part of patent documents (Source: Compiled by the author)

Cross (2007) considered wording to be the most crucial aspect of patents. The words used in the claims should follow conventional language use, unless the description provides a special meaning. The claims should not be interpreted as being confined to their strict literal wording. A patent may not protect much of what is shown and described in a patent application, because a patent only protects the technology covered in the claims. Consequently, most patent agents are inclined to draft the claims as broadly as possible to cover all aspects of an invention as described in its detailed description and all its equivalents or future versions. However, competent patent examiners do not allow inadequately broad claims that cover more than what the inventor actually invented, and patent examiners generally narrow the claims to the actual invention described in the detailed description.

The functional feature of patent information and documentation can be most clearly explained using the term “disclosure.” The disclosure of an invention is the purpose of the description of the invention claimed in a patent document, such as a patent application or a patent. To be valid under patent law, such a disclosure must be made in a manner sufficiently clear and complete for the invention to be constructed by a person knowledgeable in the field, or a “person skilled in the art.” The technical disclosure provides information on any invention to the public. This may be textual or simply visual in the form of exhibition. Unlike the paratextual traces of books (preface, index, dust jacket summaries, and book reviews), which serve as part of the marketing process, the combined paratextual features of a patent application may be greater than the whole. This poses significant challenges to a translator, if the importance of the information provided is not completely valued. Translators of a patent application should consider the paratextual features of a patent text to obtain a comprehensive understanding of the text and paratext.

Translating Peritexts

Claims in patent applications feature a particular context and appear in a certain area of the document. Despite constituting on average only 25% of the content of a patent application, claims are the core of the application and should be examined from a holistic perspective. When translating claims, it is the function of the paratext (abstract, description of the invention, and illustrations) to provide appropriate guidelines on the positioning of the main text and the patent application context that allows readers to understand the text. As Nelson stated, “the part is greater than the whole” (1998, p. 14). Thus, translated paratext creates an awareness that assists readers in overcoming the assumptions suggested in the source text.

Cross defined a patent as “a long, precisely worded legal definition of an invention. As such, the meaning conveyed by the words is important, but so is the wording itself” (2007, p. 19). This complicates translation, because it is not possible to reproduce the text word-for-word and retaining the original meaning. The colloquial use of the term “patentese” has its own false cognates that are easy for lay people to take it as the standard form of patent language. However, numerous decisions made in patent offices, courts, and research departments are affected more by how definitions are constructed than by the technology that is described in a patent. Translating patent applications requires the help of the paratext to capture the implicit and explicit meaning of the source text.

In the field of patent translation, Cross advocated literal translation as “an exact and accurate reproduction of the entire content of the source text without embellishment or modification,” and indicated that patent translators should limit themselves to reproducing precisely what is stated in the original patent (Cross, 2007, p. 22). Because it is impossible for a translator to reproduce the meaning of a source text without understanding it, patent translators are often limited to working in few technical fields in which they have expertise. Expertise is particularly crucial because patents present certain challenges: (a) The sentences are generally long and complex; (b) the technology described is sometimes obscure; and (c) the technical writing skills of attorneys can be inferior to those of engineers (Cross, 2007, p. 23).

Cross differentiated literal translation with formal equivalence by defining literal translation as the reproduction of “both the words and the grammatical structures from the source text with as little modification as possible so as to recreate the form of the original” (Cross, 2007, p. 22). According to his perspective, functional equivalence, or the translation of meaning instead of the words, often produces a misleading verbose text. Therefore, literal translation

of patents follows basic rules: reproduce the meaning; reproduce the register; respect sentence breaks and carriage returns; be consistent in the use of vocabulary and phrasing; maintain a one-to-one correspondence between source and target; and provide appropriate annotation (Cross, 2007, p. 22).

Source authors make decisions about where to break sentences and paragraphs for literal patent translators. Patents written in any language include sentences that are considerably longer and more complex than those used in ordinary technical and legal documents; therefore, worrying about run-on sentences is unnecessary. Those who read patents frequently encounter sentences with numerous independent clauses. Translators are generally given freedom in using punctuation other than periods, and if a sentence becomes too long for easy reading, it is acceptable to use semicolons to convert it into manageable chunks (Cross, 2007, p. 23).

Cross proposed two strategies: conserving lexemes and equivalent phrasing. Conserving lexemes involves differentiating between lexemes and function words. Lexemes must be reproduced without adding new lexemes, but changing function words and phonemes (prefixes, suffixes) to address the constraints of the target language is permitted. Conserving lexemes is applied at the single-word level. In the case of doubt regarding a particular word, Cross suggested generalizing the word as a lexeme to fit the intended purpose.

Regarding equivalent phrasing, patents use little idiomatic or colloquial language, and this low-level approach can often be used without problems. When phrases and terms cannot be translated adequately using exactly the same lexemes in the target as in the source, such as in patent translations, equivalent phrasing must be used. Equivalent phrasing involves using a phrase or term in the target text that contains lexemes that differ from those in the source text but is functionally equivalent to a phrase or term in the source text. This approach is

useful when the equivalence is well established and when conserving the source lexemes would lead to undue confusion or a highly unnatural style.

However, in the literal translation of patents, equivalent phrasing should be the exception, not the rule. Equivalent phrasing is typically used when a translation is used for filing and less typically, when it is used for litigation. Nevertheless, when translating patent documents, a translator can benefit from the paratextual features of patent documents, particularly the correlations between titles, abstracts, and descriptions of patent applications and each of these paratexts related to the main text.

The study of the correlations of paratexts helps translators identify the characteristics of patent texts, enhancing the process of translation. Understanding the correlations between certain paratexts and the amount of repetitions within a text enables a translator to determine the effort required for a translation. The translation of a paratext can be facilitated by completed translations of other paratexts in a patent application, when texts within a patent application are treated as a whole. Therefore, observing the correlations of paratexts is crucial, particularly in the translation of patent documents.

Correlations among Paratexts

We examined the correlations between the paratexts and the claims of patent documents, considering the legal and textual importance of claims to a patent application. We collected data from the online database of the Taiwan Intellectual Property Office (TIPO) and Taiwan Patent Search (TIPO, 2008) and used *SDL Trados Studio 2014*² to calculate repetitions of each paratext (i.e., patent abstract, claim, and description). In addition to examining each paratext,

² SDL Trados Studio 2014 England: SDL plc.

we determined repetitions among titles, abstracts, descriptions, and claims.

No repetitions were found in the title and the abstract because of the minimal number of words. However, repetitions were found in the claims (10.8%, Figure 2), although claims accounted for only one fourth of the patent document (Figure 1). Repetitions in the description accounted for only 3.47% of the total word count.

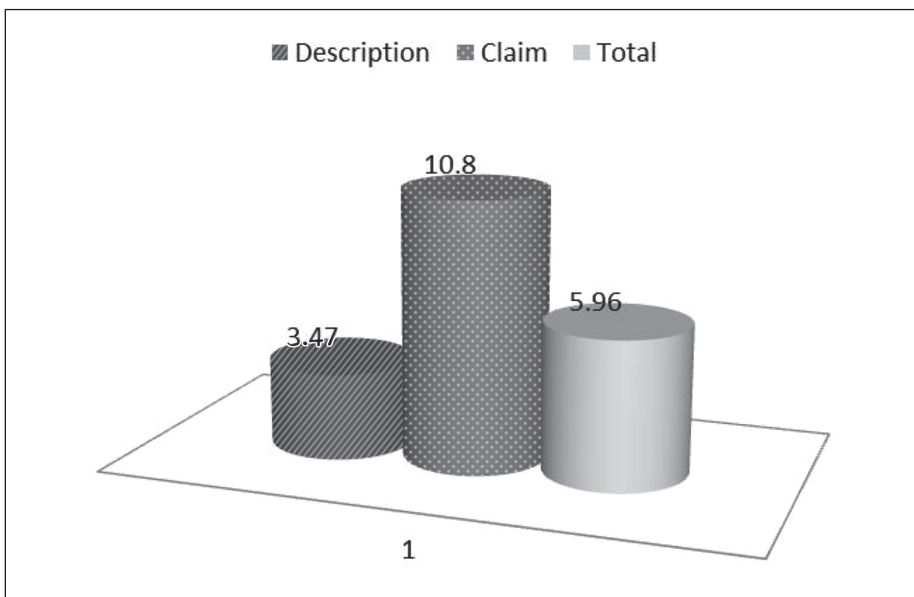


Figure 2. Percentage of repetitive words in each paratexts (Source: Compiled by the author)

Cross-file repetitions were examined to identify the correlation of description and claim with other paratexts. Similar to the findings of previous studies, cross-file repetitions were frequent between claims and other paratexts. However, descriptions exhibited few cross-file repetitions with other paratexts, because the number of wordcounts alone exceeded all other paratexts.

The correlations among titles, abstracts, and descriptions related to the claim were identified through repetitive word occurrences. Table 1 shows that words in the title and the claim (15.65%), and the abstract and the claim (14.57%) are highly repetitive. Repetitions also occur among descriptions with titles and abstracts, although the number is low.

Table 1

Correlations between Each of the Paratexts

Title + Description		Title + Claim		Abstract + Description		Abstract + Claim		Description + Claim	
New	Repetition	New	Repetition	New	Repetition	New	Repetition	New	Repetition
96.47%	3.53%	84.35%	15.65%	96.37%	3.63%	85.43%	14.57%	94.18%	5.82%

Note. Compiled by the author.

The findings of this study show that claims are not only the core of patent documents but are also highly correlated with other paratexts. Words in the claims occur repetitively in titles and abstracts, and this is beneficial to the translator when recycling previously translated titles and abstracts.

Conclusion

Patent application documents comprising titles, author names, abstracts, descriptions of the invention, bibliographic data, the claims, and drawings contain space outside the main text. Paratext describes the linguistic status of that text that surrounds a main text (Nelson, 1998, p. 2). Considering the significance and legal status of each part of a document, the claims can be regarded as the main context in patent applications. “Paratexts indicate the forces that have shaped a text: they show how contexts invade the text” (Nelson,

1998, p. 17). The peritext of patent documents are parts of the document that support, summarize, generalize, clarify, and illustrate the claims. The paratextual value of patent information is textual and visual and features drawings and symbols.

This study examined patent text complexity by analyzing peritexts and paratexts of patent translation. The title of an invention propagates directions or interferes into a prefaced text and, similarly to the functions of other peritexts, adds meaning to the text. Patent abstracts are a pretext to the patent document context and prepare readers for the main text. The description includes a brief summary of the technical background of an invention and describes the essential features of the invention with reference to any accompanying drawings. The claims define the scope of legal protection, the type of protection that is sought, and its prior art. Claims are supported by the description and drawings, which facilitate interpretation of the claims.

Translators of patent documents can benefit from the paratextual features of patent documents, particularly the correlations among certain paratexts related to the main text. The correlations among each of the paratexts related to the claim can be identified by determining repetitive word occurrences. Although the number of words in the descriptions was higher than in other parts of the patent documents in this study, repetitive word use was not found in the description. No repetitions were found in the title and abstract because of the minimal number of words. However, repetitions were found in the claims, although they accounted for only one fourth of the patent document. This result was evident when calculating cross-file repetitions of claims with other paratexts.

These results reveal that claims are the core of patent documents and are highly correlated with other paratexts. Words in the claims occur repetitively in

other paratexts, and this is beneficial to the translator when recycling previously translated texts.

From a supply-and-demand perspective, the study of patent documents contributes to translation studies, benefitting patent translators, patent offices, and readers. The study of language features involves examining the interrelationship between language and patent activity, analyzing the regularities of language use in various settings, and identifying features that occur within longer texts. The study of patent language could facilitate streamlining translations of patent texts, because the patent document structure follows a specific pattern with regulated standards. Improvement opportunities for practitioners, instructors, and researchers can be identified on the basis of statistically representative results and data-driven analysis. Such research could contribute to pedagogical developments and aid the training of patent translators for patent offices and legal firms.

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