Ontology as an informative instrument for the legal translator

Mariana Orozco Jutorán and Pilar Sánchez-Gijón Universitat Autònoma de Barcelona mariana.orozco@uab.es; pilar.sanchez.gijon@uab.es

1. Problems facing the legal translator

A great deal has been said and written about the difficulties that the legal translator faces. Rather than suggest a whole theoretical framework based on points already made by other authors (Borja 2000a, 2000b, 2005a, 2005b, Monzó 2005a, 2006, Santamaria 2005, Mayoral 2002, 2005 and Ortega Arjonilla 2005, among others), we would therefore like to quickly establish a specific classification of the aforementioned problems and subsequently move on to an analysis of the instruments available for helping to resolve them.

While the classification in question is general, and thus applicable to any legal text, one, two or more of the following problems will arise, depending on the level of specialisation of the text and the knowledge or prior experience possessed by the translator:

- 1- A lack of knowledge of the *terminology or phraseology/USMs* (units of specialised meaning) used in the text (where comprehension is concerned) or which ought to be used therein (in the case of the wording of the translation, given that the future reader has expectations in that respect).
- 2- A lack of knowledge of the *characteristic traits that give the text substance*, such as the branch of law to which it corresponds, the textual genre to which it belongs (i.e. its usual macrostructure, the questions of form to be taken into account), the main function (legal and communicative) to be expected, etc.
- 3- A lack of knowledge of the *figures involved*: the individuals who or agents that feature or may feature in the legal context of the text in question (courts, civil service, lawyers, second or third parties, applicable legislation, etc.). Legal texts have a high level of intertextuality, and while that is also true of other fields, the case of the legal area is unique in that such intertextuality can be and, in fact, is usually tacit and determining. For example, it is common for there to be no reference to the legislation or jurisprudence that is relevant to a particular text, but it is assumed that the target of the text possesses knowledge thereof.
- 4- A lack of knowledge of the possible *legal consequences arising* from the text, i.e. texts that require the person at whom they are aimed to respond or act in a specific manner, texts that involve action from third parties (individuals, financial institutions, etc.), texts that are provisional or not final (cases in which there is scope for an appeal or a final ruling), etc.

In reality, every citizen encounters those four problems (in their native language) at some time or another in their life, and they usually turn to a lawyer, a notary or another specialist in law to resolve them. Evidently, the translator has to deal with the complexity of multilingual communication and it is not enough for him/her to be familiar with the two legal contexts involved (which, for each language and its corresponding legal system, will include the four problem areas referred to previously). The translator needs to take a broader universe into account, namely the context of translation, the communicative situation in which it arises, i.e. whether a translated document or target text is to be legally valid in the target language/legal system or whether a translation is being undertaken for informative purposes, etc.

On the basis of the decisions made, the most appropriate type of equivalence will be opted for on a lexical level (in accordance with the classification established by Santamaria (2003¹), a legal equivalent, a lexical or periphrastic translation, or a contextual equivalent²

¹ Santamaria originally presented this classification in the paper "L'adaptació terminològica jurídica" at the First International Conference on Specialised Translation, Universitat Pompeu Fabra, 2-4 March 2000.

must be chosen for each term or USM), a sentence level (phraseologically functional equivalencies, collocations, etc.) and a textual level (reproducing the specific characteristics of the macrostructure and adaptation to the particular characteristics of the genre in the target legal system, etc.).

The legal translator is thus constantly faced with translation situations that require the following three facets: (a) knowledge of the four problem areas in the language and the legal system corresponding to the original text; (b) knowledge of the four problem areas in the language and the legal system corresponding to the target text, which implies being able to think of the closest situation possible to that to which the original text refers in the target language and legal system; and (c) reflection and decision making in order to select the most appropriate type of equivalency on the lexical, sentence and textual levels.

It is impossible to overcome the obstacles described without tools that facilitate the comprehension of the conceptual universe of which the text in question is a part, as regards the genre and the implications thereof, plus the structure and the format, the main legal and communicative function and the legal validity that the text is to have, as well as all the factors referred to in the third and fourth problem areas.

1.1. Instruments that can help to resolve problems

An ever-increasing number of instruments are available to the legal translator for the purpose of carrying out his/her work. On one hand, there are "traditional" *lexicographical works*, in paper or digital format, i.e. specialised monolingual dictionaries and encyclopaedias, which are useful for providing solutions to the first of the aforementioned problem areas (terms, phraseology, USMs), and specialised bilingual dictionaries, which also offer potential solutions, although with certain limitations.

Generally speaking, the lexicographical entries in such works correspond to terms from the source legal system, while the proposed equivalents tend to be either literal translations (and, thus, terms that do not exist in the target legal system or even which represent a concept other than that referred to in the original text, e.g. Magistrate's Court -Juzgado Correccional) or terms specific to the target legal system, despite the fact that there may be many intrinsic differences (e.g. Limited Company - Sociedad Anónima). This is a particularly serious matter, as bilingual legal dictionaries in unskilled hands, i.e. those of someone who has not reflected upon the matter in question and is thus unaware that proposals in dictionaries ought to be regarded as mere options to be weighed up in conjunction with the complexity of the elements involved in a translation, lead to constant errors that subsequently result in poor translations and even communicative problems between the parties involved in the translation situation. There are two prototypical examples in that respect, namely translation students (and inexperienced translators or anyone bold enough to translate without having received proper training) and journalists. All of us who teach legal translation have witnessed the former case. During exams in particular, when the pressure of a time limit causes them to forget what they have learned in class, students often put their faith in the equivalent proposed by a bilingual dictionary and "jam" it into the translated text, even though it may not work in the context in question and may not be an appropriate type of solution. Unfortunately, the same situation arises in the case of legal texts translated by those who are theoretically qualified to do so. Their errors go on to add to the increasingly common lists of "translation howlers", which are habitually found on the internet (in discussions in mailing lists or as the object of a few satirical articles, etc.) and do nothing to contribute to the generation of greatly required prestige for the important task of translation.

||12||

² A legal equivalent is held to mean equivalency established between two terms that represent two similar concepts in each of the legal systems (e.g. *separation agreement* and *convenio regulador*). A contextual equivalent refers to the case of the term in the source language having different possible equivalents in the target language, depending on the context in which it is used (e.g. *attorney* can be the equivalent of *abogado*, *apoderado*, *Fiscal General del Estado*, etc.). Lexical translation consists of suggesting a loan translation of a term in the source language when there is no equivalent thereof in the target legal system (e.g. *The Business Names Act - Ley de nombres de empresas*). Lastly, periphrastic translation involves explaining a source language term in the target text (e.g. *joint venture - negocio en participación de dos o más empresas*).

With regard to the second example, it is simply necessary to read the press on a relatively frequent basis to find (in the international or society sections, which often cover cases being tried the UK or the USA) instances of "High Court" or even "Supreme Court" being translated as "Tribunal Supremo", without the addition of any type of explanation that might clarify matters for a Spanish reader.

Additionally, terminological databases can help to partially resolve the first problem, as well, potentially, as part of the second. If the information contained therein on each entry is sufficiently complete, it is possible to identify the branch of law to which a text corresponds or even the textual genre in which it is habitually used (provided that a single term cannot feature in more than one genre, something that is rather uncommon in legal texts). However, terminological databases have their limitations, as will be explained in the next section.

As regards a solution for the second problem area facing the legal translator, that involving the characteristic traits that give a text substance, there are currently numerous publications containing *legal forms*, which can help the translator to recognise macrostructures and textual genres, as well as to select the appropriate phraseology, thus serving as parallel texts.

Another major resource that will soon be available is the product of research work currently being undertaken by A. Borja and E. Monzó of the Universidad Jaume I, as part of the GENTT project (García Izquierdo and Monzó 2003, 2005; Borja and Monzó 2000), which is set to result in an *encyclopaedia of legal textual genres* covering Spanish, British and US law, and which will undoubtedly prove to be extremely useful for legal translators.

However, for the purposes of resolving the third and fourth problem areas, i.e. a lack of knowledge of the figures or agents involved and the possible legal consequences arising from a text, the tools available for helping the legal translator have certain restrictions and drawbacks.

Firstly, there are *specialised monographs*, which provide the translator with all sorts of information on the legal system corresponding to a specific country and language, or even on comparative law, highlighting the differences between two particular legal systems. However, the enormity of the field of law, which governs every aspect of our life and is therefore exhaustive, results in specialised monographs covering very broad aspects and being either too vague or too complex (in other words, it is necessary to be a specialist in the first place to understand them in any depth). Furthermore, such monographs do not usually refer to or make explicit mention of the broader context of which they are a part, meaning that consulting them tends to be rather impractical for the translator, who rarely has as much time for documentation as he/she would like.

Additionally, while the major development of ICTs and artificial intelligence over recent years has made it possible to create very different types of *knowledge bases and expert systems*, including ontologies (which are dealt with later), the problem for the legal translator is that none of the existing ontologies or knowledge bases have been designed to serve as a reference source for those who are not experts. There are a host of tools geared to aiding jurists (lawyers, notaries, judges, public prosecutors, consultants, etc.). Borja (2005a) refers to such tools as "legal IT" and arranges them into the following categories: (a) documentary and managerial legal IT, i.e. programs for the automatic drafting of legal texts; (b) legal IT for data and document recovery (the LEXIS, WESTLAW, SCALE or INFO1 databases); (c) rule-based expert systems that use logical inference techniques to create models of legal reasoning for automatic decision making, in an attempt to formalise law and legal reasoning.

³ A higher British court that hears civil and criminal cases, but which is not the highest authority to which it is possible to appeal, given the existence of the "Court of Appeal".

⁴ The "Supreme Court of Judicature" encompasses all the British higher jurisdictional bodies (Court of Appeal, High Court and Crown Court), apart from the House of Lords, and is thus not a specific court to which it is possible to appeal.

⁵ Å higher Spanish court and the final authority to which it is possible to appeal (without becoming involved in the jurisdiction of the *Tribunal Constitucional*), encompassing chambers in which civil, criminal, contentious/administrative and military cases are heard.

Given that the legal translator does not tend to be a jurist, using all the tools in question is neither a simple nor a quick option. Firstly, it is assumed that the user has a whole range of knowledge (not only on law in general, but also on all the intertextual relationships entailed, on the agents involved in each situation, etc.) that the translator often does not possess. Secondly, all the aforementioned tools tend to be monolingual; those that are multilingual usually refer to specific or supranational legal systems (such as Community Law, which is separate from that of the Member States and only used in the EU) that are not applicable to texts being translated between two languages and two particular national legal systems.

Meanwhile, the expert knowledge systems in the form of ontologies (cf. Gruber, 1993) which we have been able to consult show that the very experts who develop them are aware of their limitations and complexity, and eventually encounter the same difficulties as the translator does.

Due to the complicated nature of this matter, perhaps it is worth going into a little more depth to establish a specific example. Breuker, an author with vast experience of European projects geared to the creation of legal ontologies, having worked in that area for more than a decade⁶, created the LRI-Core ontology. In a subsequent article, he explained the deficiencies of earlier systems, such as SUMO or DOLCE, which LRI-Core overcame. However, he stated that LRI-Core had not fulfilled its established objective, which was to develop ontologies that would cover the areas of Dutch, Polish and Italian criminal law, a basis that could be used for the purpose of analysing the differences and similarities between the legal systems of those European countries, with a view to making progress towards the much sought-after "harmonisation" of the legal systems of the Member States. That idea of harmonisation is based on the theory that the legal systems in question have a common moral basis and that the main difference between them lies in the concepts used thereby (for example, abortion is regarded as homicide in Holland because the definition of "life" differs from that established by the Italian criminal system). According to Breuker (2004) again, the main obstacle encountered in that respect (other than the financial barrier) was translation, with it being noted that attempting to make 'maps' of similar legal concepts was a much more complex matter than making 'maps' of vocabulary in different languages (as in the case of EuroWordNet), "as translators of legal documents can confirm", explained the author. Similarly, the study in question (Breuker, 2004) confirmed that comparative law (texts comparing the criminal law system in the three aforementioned countries, in this instance) is relatively useful, given that it mainly focuses on the characterisation of basic principles and the history that has given rise to the differences and similarities between criminal legislation in each of the relevant countries.

It is thus clear that the "ultimate" difficulties eventually turn out to be very similar to the problems described initially.

Another case is that of the Laboratory for Applied Ontology (ISTC-CNR) in Rome, which, based on its experience of various European projects (DOLCE+, NIR and the Italian version of JurWordNet), suggests that ontologies be used to formalise legal knowledge and the legal lexicon, with a view to comparing legislation and detecting incompatibilities and/or differences between national legislation (that of Italy, in this case) and supranational legislation (Community legislation) (cf. Gangemi *et al.*, 2002). The intention of the authors is to develop an information recovery system that will make it possible to access heterogeneous, multilingual data and which, at the same time, will offer a source of conceptual information. The tool in question is currently being developed and could prove to be of great use to translators, if a successful outcome is reached.

Lastly, most of the current research to which we have had access (Zalbert and Smith, 2005; Smith, 2001; Smith, 2004; Kraligen, 1997) only focuses on the more philosophical aspect of ontologies. While such reflections may be extremely helpful for

⁶ Breuker is the co-creator of OCL.NL, an ontology focusing on the area of Dutch criminal law (as part of the European IST project known as "e-Court", which was geared to the development of a tool that would allow for the semi-automatic management of procedural documents, such as transcripts of oral hearings), and has taken part in projects such as TRACS (cf. Den Haan, 1996; Den Haan and Breuker, 1996), ON-LINE (cf. Valente *et al.*, 1999) and FOLaw (cf. Valente, 1995).

computer scientists (who have to physically create ontologies) or jurists (who seek to design practical ontologies that will solve problems of a legal nature), they do not provide information that is useful for translators.

In short, having analysed the research currently being undertaken and to which we have had access, we can state that while it is possible that legal ontologies will be genuinely helpful in the future, the ontologies available at present provide a reduced and clearly insufficient amount of information for translators.

1.2. New reference sources created specifically for translators

On the basis of all the above observations, it could mistakenly be concluded that the work of all legal translators is incorrect due to the unavailability of better sources of information; that is by no means the message that we are trying to transmit. The fact is that legal translators who work exclusively within that field have become increasingly specialised and, over time, have been "filling in" all the gaps in knowledge to which we referred in the four problem areas (lack of knowledge of terminology or phraseology/USMs; lack of knowledge of the characteristic traits that give a text substance; lack of knowledge of the figures involved; and lack of knowledge of the possible legal consequences arising from a text), whether through specific training (postgraduate courses in legal translation, law degrees, specific courses on particular areas of knowledge, etc.), through reading specialised monographs and articles in specialised journals, or simply through personal contact with jurists. Some legal translators actually work in teams with jurists (mainly lawyers) or have spent time working in legal practices as liaison interpreters or as administrative staff, thus acquiring the necessary knowledge.

Be that as it may, in the present day, when technological evolution has made it possible to design practically anything imaginable and for which there is a great enough need, we feel that it is time to make new reference sources available to legal translators, so that they can "fill in" the aforementioned knowledge gaps in relation to the relevant legal systems quickly and flexibly, incorporating the necessary terminology (liable to be used as an equivalency) in both the languages involved at the same time.

We are referring to a bilingual ontology that would provide the translator with a comparative picture in both the languages and systems with which he/she is working. There may be a notion that this is precisely the function of comparative law, but the translator not only needs a comparison of systems in terms of legislation, courts, etc., but also specifically requires a comparison of categories of concepts, given that the concepts involved are not equivalent to each other. The translator needs to become familiar with the concepts that underlie the original text and those that constitute the same situation (or the most similar situation possible) in the target language and legal system in order to be able to establish terminological equivalencies, which, depending on the nature of the translation commission (it may be an informative translation, it may be that the text has to be adapted to the target legal system, it may be a translation that is to be used as the basis upon which another document will be drafted, etc.) and the specific communicative situation, will be legal, lexical, periphrastic or contextually equivalent translations, according to each particular case. Thus, with the assistance of existing reference sources and the proposed bilingual ontology, the translator could quickly and flexibly obtain all the information required to produce a target text that would meet all the requisites for his/her translation to perform the desired function.

We are going to present a brief example of how the proposed bilingual ontology could be developed, although the idea would evidently be to begin a wide-ranging research project that, over time, could come to encompass all the areas of the two legal systems involved in a translation.

We have chosen to focus on commercial law as it is an area that generates a great deal of translation work (mainly texts related to the application of law, such as contracts, company charters, articles of association, etc.) and in which, nonetheless, translation errors abound, often due to dictionaries and terminological databases being used incorrectly.

2. Legal terminology management

As was already indicated in the previous section, the legal translator is one of the main consumers of legal terminology, but not the only one. In other subject areas, such as the technical or scientific disciplines, it is possible to distinguish between descriptive or functional terminological management on one hand and prescriptive terminological management on the other. The former refers to any work that includes terminology related to a specific discipline, generally in more than one language, and whose function consists of helping experts in the field or similar figures to understand particular terms and even to find equivalents in other languages. Such works are merely informative and have no normative value. The latter, i.e. prescriptive terminological management works, are those developed by institutions that establish concepts, definitions and the names thereof in one or more languages. Examples of such institutions are the ISO, on an international scale, AENOR (Spain) and DIN (Germany). Their role consists of establishing concepts in highly specific areas, standards, together with the names thereof. It is possible for them to do so as the areas in which they operate are common to the international community; establishing concepts on an international scale in fields such as pharmacology, telecommunications, hydrocarbons, etc., is essential in order for knowledge to evolve and flow internationally and, above all, in order to facilitate technological and commercial exchanges between different communities.

The terminological management that we have described as prescriptive is not a feature of a legal environment, except, at the most, in the case of international law. Given that each community has its own legal system, as pointed out previously, the existence of prescriptive legal terminological management that encompasses different languages corresponding to different legal communities is impossible. The terminological reference works available to the legal translator are thus merely descriptive and, consequently, informative. Unfortunately, such works tend to treat terminology in a fashion comparable to that of any other area, without paying sufficient attention to the specific nature of each of the legal conceptual systems involved.

Let's focus on terminological databases, a priori much more flexible than any work of a lexicographical nature. In general, developing a database involves following a methodology inherent to terminological undertakings; in other words, it is considered that a unique concept exists and that it is represented by a certain name in each language, with all the corresponding information set out in a single file. However, the application of that methodological principle sees legal terminological bases fall prey to the same problems as bilingual lexicographical works. With a single concept covered in each file, a concept corresponding to only one of the legal systems involved in a translation (probably the source legal system) is presented. It is for that reason that, despite containing information in more than one language, legal terminological bases should be regarded as unidirectional, with one source language and one or more target languages, as the underlying conceptual system is that of the source language only. The concepts presented correspond to the conceptual system (the legal system, in the case of law) of the source language, and the names shown in the target languages are mere proposals or adaptations geared to reproducing the conceptual system of the source language, but which do not reflect the conceptual system of the target languages⁷. The legal translator must learn to recognise that phenomenon if he/she works with databases and even lexicographical works, and uses them for the purpose of documentation.

3. The conceptualisation of the legal system from a linguistic point of view

Over recent years, and in the light of the limitations of terminological databases, not only where legal terminology is concerned, but also in other fields of knowledge in which there is no single shared conceptual system, more complex terminological management systems from the world of artificial intelligence have been favoured, namely

_

⁷ This is inevitable. Sometimes, the concepts of each legal system become intermingled to such an extent that the legal translator is unable to identify the system to which a given concept belongs.

knowledge management systems or ontologies. According to Sowa (2000:492), the discipline of ontology consists of "the study of the *categories* of things that exist or may exist in some domain". Artificial intelligence has adapted that branch of philosophy and has developed methodologies and tools that allow for the conceptualisation of fields of knowledge ("an abstract simplified view of the world that we wish to represent for some purpose", Gruber, 1993:2) and the representation thereof in the form of an ontology ("an explicit specification of a conceptualisation", ibid.). The methodologies and tools in question have consequently become terminological management systems, as those systems are based on concepts as units and, ultimately, concepts are represented by names in each language.

The use of ontologies offers many benefits. Noy and McGuinness (2004:1) summarise the reasons for using them as follows:

- "- To share common understanding of the structure of information among people or software agents
- To enable reuse of domain knowledge
- To make domain assumptions explicit
- To separate domain knowledge from the operational knowledge
- To analyse domain knowledge "

Steve *et al.* (1998a:1) establish three categories of ontologies, namely single-domain ontologies, generic ontologies and representational ontologies. The ontology proposed herein shares many of its characteristics with single-domain ontologies, although in the case in hand, the relevant domain, i.e. legal translation, is part of two different areas of knowledge, namely law and translation. It is an ontology developed with a specific application in mind, that of providing legal translators with the information that they require so that they can make their own decisions in the context of their translation.

Ontologies are extremely useful for the legal terminological management proposed herein for two main reasons. Firstly, the underlying conceptual outline of a given field of knowledge is specified in ontologies, with the peculiarity of it not being linked to a particular language. That characteristic is especially relevant in the area of legal terminology, as it is consequently possible to group categories of concepts together independently of a language and, thus, of the legal system related thereto. Furthermore, it is therefore possible to group concepts together on the basis of abstract categories not necessarily envisaged in a legal system. Additionally, there is a specific aspect of the methodology established by WordNet, one of the better known terminological ontologies (Sowa, 2000:497), which is also partially applied in our model, namely *synsets* or sets of synonyms (http://wordnet.princeton.edu/man/wngloss.7WN.html). *Synsets* are sets of terms that are equivalent or almost equivalent to each other, and which thus share characteristics and relationships with other terms from the ontology.

Our intention is to design an ontology that might facilitate terminological management and the legal translator's understanding of the concepts corresponding to the area, in the source and target languages, as well as the implications of those concepts. To that end, and as signalled in the first section of this article, we have decided to offer an example of terminological management through ontology, using the field of commercial law as the purposes of this illustration. Given that the ontology in question is to be used by legal translators, both the conceptual structure and the characteristics that describe concepts must enable the translator to understand the subject area, to assimilate new concepts on the basis of the knowledge that he/she already possesses and to arrive at appropriate solutions for the translation problems that may arise as part of his/her professional work. The ontology must help the translator to avoid mistakes attributable to contact between two different legal systems, in such a way as to make it possible to produce translations that are consistent with the translation commission.

To that end, and bearing in mind the aims of this project, it is essential that one of the main characteristics of ontologies be avoided, namely the use of a single conceptual structure unrelated to linguistic considerations and linked to a certain conceptual system. In fields of knowledge other than law, such as science, for example, it may be appropriate for there to be a conceptual structure that is independent of any language and which might even serve as a link between the lexicons of different languages, as, theoretically at least, scientific knowledge is deemed to exist independently of any language. That is not the case where law is concerned. We have thus decided to do away with a single conceptual

structure, which would always be linked to a certain legal system, and have opted for a structure consisting of categories that encompass both British and Spanish concepts; in other words, each category includes concepts corresponding to both the legal systems involved and, thus, to both languages.

Any mention of legal concepts may entail a reference to a concept that is clearly defined in the corresponding legal system (e.g. a *sociedad anónima*) or to concepts that have to be specified in the event of them being applicable (as is the case of the underlying concepts of many contractual clauses, for example).

3.1 An ontology of legal terms

An example of an ontology of concepts that are clearly defined in the legal system is that proposed by Orozco and Sánchez Gijón (forthcoming), encompassing concepts related to the British and Spanish systems on company law. The proposal in question covers the companies set up under the British and Spanish systems. To that end, four categories are established:

- 1- Companies: the types of companies envisaged by each legal system.
- 2- Agents: the figures legally involved in companies.
- 3- Documentation: based on the classes of textual genres established by Borja (2000:85), this category includes the documentation that is essential for finding out the legal context of companies. The documentation in question basically consists of prescriptive texts (legislation) and texts related to the application of law (documents that must be submitted in order to register a company and to begin an economic activity).
- 4- *Authorities*: the registries in which companies must be registered in order to begin their activity.

The above categories are not concepts described and envisaged in the legal systems involved, but more or less generic descriptions that make it possible to group terms from the British and Spanish legal systems together. On the basis of those categories, a documentary framework is proposed, by means of which the translator can become familiar with and compare each of the concepts described. Specifically, companies are described by listing their characteristics as established in each legal system. The following characteristics are stipulated:

- *Minimum number of partners*: the minimum number of people required to form the company.
- *Maximum number of partners*: maximum number of people who may form the company.
- Liability of partners in relation to third parties: the values envisaged for this characteristic are limited; unlimited; limited for sleeping partners; and unlimited for general partners.
- Own legal status: the envisaged values are "yes", which means that the company is a legal entity and is to be regarded as such in the eyes of the law; or "no", which means that each partner is a legal entity acting on their own behalf.
- Decision-making bodies: agents involved in the management of companies. These concepts are included in the category Agents | Decision-making bodies.
- Existence of share capital: requirement for share capital to exist explicitly.
- Representation of capital: forms that capital may take (shares, securities, etc.). These concepts are included in the category Companies | Share capital.
- Possibility of sale to the public: existence or otherwise of the possibility of selling the forms in which capital is represented (shares, securities, etc.) to the public.
- *Minimum share capital*: minimum amount of share capital (where required) expressed in the corresponding currency (pounds sterling or euros).
- *Initial capital outlay*: minimum amount that must be paid out prior to beginning the corresponding economic activity.
- Registration in: place (registry) in which the company must be registered.
- Registration formalities: essential documents for the formalisation of the registration of the company in the corresponding registry.

- Governed by: law or laws governing the operation of the company.
- *Legal equivalent*: legal equivalent, if applicable (concept from the other legal system covered by the same category).
- Hypernym / Hyponym: allows for interrelated terms to be listed.

The ontology in question makes it possible to directly consult any of the terms included, whether in English or Spanish, and to look at the characteristics of those terms in more depth in order to obtain a greater knowledge of them. In the case of there being a legal equivalent, it would be included in the description of the term. Where terms without a legal equivalent are concerned, the ontology allows for searches to be performed by specific characteristics, so as to find partially equivalent terms.

3.2 An ontology of notions

One of the peculiarities of legal rhetoric consists of basing arguments on legal notions that are implicit or which are only explicitly referred to in a veiled or indirect manner. That is the case, for example, of the *spirit* of laws in Spanish or of the underlying notion of the clauses of a contract. Those very notions, those that underlie the clauses of a contract, are going to be used for the purpose of illustrating an example of the application of ontology to legal translation with two goals:

- 1. Providing information needed in order to be able to understand the original text and possible parallel texts.
- Providing linguistic information needed in order to be able to understand the original and draft the final text.

The clauses of a contract make statements, in one way or another, as regards an aspect, idea or concept (a pledge made by the parties, the nature of the object of the contract, etc.). On that basis, clauses could be conceptualised with a view to subsequent categorisation, taking into account the underlying notion (e.g. the *guarantee clause*), the characteristics that give a clause substance, the textual genre to which each clause belongs, etc.

From the outset, the drafting of a contract is subject to the will of the parties to enter into agreements, provided that none of the clauses is void with regard to the law. That is the case under both Roman and Anglo-Saxon law⁸.

The following proposal for an ontology is based on three initial classes:

- Clauses.
- Figures.
- Documentation.

As was the case of the ontology proposed for legal terminology, we have envisaged categories that include concepts from both Anglo-Saxon and Spanish law. Those categories are not actual figures of each legal system, but function as hypernyms or classes that can encompass or help to describe concepts from different legal systems. Before tackling the *clauses* class, which constitutes the heart of this proposal for an ontology, we will describe the *figures* and *documentation* classes.

Despite that fact that in this case the idea is to focus on clauses, or maybe for that very reason, we feel it necessary to include aspects such as the figures involved and the documents that include or condition the clauses. Where figures are concerned, we have merely distinguished between the categories *agents* and *notaries*. *Agents* are those who participate in a contract and to whom different names are given in each different contractual relationship (e.g. *buyer-seller*, *lessor-lessee*, etc.). *Notaries* are those responsible for attesting to a legal act.

⁸ Regardless of the will to enter into agreements, in some cases there are certain aspects that must, obligatorily, be placed on record in order for a contract to be valid. For example, it is necessary for the consideration to feature in British purchase contracts. In Spain, lease contracts constitute the only type of contract for which the minimum clauses are stipulated by law.

The *documentation* class features a categorisation of legal documents based on the classification suggested by Borja (2000:85). That classification distinguishes between prescriptive texts, texts related to the application of law, judicial texts, doctrinal texts and jurisprudence. Texts related to the application of law include contracts, while the laws that govern them are classed as prescriptive texts. In addition to those text types, we have also included the *data* category in the *documentation* class, whereby it is possible to specify the data contained by the relevant documents. Such data is often related to the figures involved, to the object of the contract, etc.

The *clauses* class is subdivided into three categories:

- *Underlying legal notion*: this is an abstract category that classifies the various concepts that may be embodied by a clause.
- Sample clauses: real clauses extracted from both British and Spanish contracts.
- Units of legal meaning (ULMs): linguistic expressions that have a specific meaning in legal language and whose use is linked to a textual genre, a clause with a particular underlying legal notion, etc.

Despite the apparent form of an ontology and the prototype having been developed using the Protégé 3.0^{9} ontology editor, the relationship between the classes and their categories is not always hierarchical. In certain cases, the image of a network between categories is more illustrative than that of a hierarchical structure. A detailed description of each of the categories envisaged in the *clauses* class follows.

Descriptive fields for the <i>Underlying legal notion</i> category			
Slot ¹⁰	Description	Inverse slot ¹¹	Description
IN DOCUMENT	Link with the document type that includes a clause with the legal notion in question.	WITH CLAUSE WITH UNDERLYING LEGAL NOTION	Documentation slot that links the document type with the legal notions of the clauses that it contains.
SAMPLE TEXT	Link with a clause with the legal notion in question.	Underlying legal NOTION	Sample clauses slot that links the clause with its corresponding underlying legal notion.
ULM	Link with the ULM commonly used in clauses that express the legal notion in question.	LEGAL NOTION OF CLAUSE	ULM slot that links the ULM with the underlying legal notion of the clauses in which it is used.
HEADING, CLAUSES, END	Part of a contract in which the legal notion in question is usually included.		
EQUIVALENT	Linguistic equivalent in the other language. ¹²		

_

⁹ Protégé 3.0, http://protege.stanford.edu, © 1998-2006, Stanford University.

¹⁰ Slots are the fields envisaged for describing a concept in a category. They may be open fields in which it is possible to include any relevant piece of data, or fields that associate an element or an instance with another from the ontology.

¹¹ Some slots that encompass a relationship between one instance and another are also able to anticipate the inverse slot on the basis of the description of the instance, in such a way that the editor automatically reproduces that information. For example, with the HYPERNYM slot, it could be said that *instance A is the hypernym of B* (A>B). With the inverse slot HYPONYM, the editor would automatically create the relationship *B is the hyponym of A* (B<A).

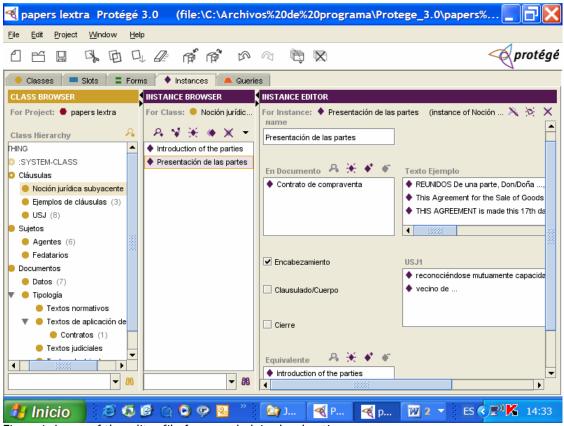


Figure 1: Image of the editor file for an underlying legal notion.

By means of the fields in question, each of the notions is related with the *sample clauses*, with the *ULMs* that are most commonly used to express the relevant notion and with the *documentation* in which it features, which may be a specific genre (e.g. purchase contracts) or a category (e.g. documents related to the application of law).

Descriptive fields for the Sample clauses category			
Slot	Description	Inverse slot	Description
FIGURE	Link with the figure appearing as the agent of the clause.	CLAUSE	Figures slot that links figures with a sample clause.
Underlying legal notion	Link with the corresponding underlying legal notion.	SAMPLE TEXT	Underlying legal notion slot that links the notion with a sample clause.
DOCUMENT	Link with the document type that usually contains the clause in question.	DOCUMENT CLAUSE	Documentation slot that links the document type with a sample clause.

¹² From a conceptual point of view, it might have been more appropriate to work on the basis of the existence of a sole notion or underlying concept, and, therefore, of a single entry with one name in each language. However, given the structure of the editor and the application of this ontology, we felt it more useful to make distinctions from a linguistic point of view and to relate the notion in English with the English clauses and ULMs, doing likewise with the Spanish notion. The notions are thus interrelated through the EQUIVALENT field, but each name is only related with information in the same language and, therefore, from the same legal system.

ESSENTIAL DATUM	Link with the data category in the documentation class which makes it possible to indicate the data that must necessarily appear in the clause in question.	CLAUSE IN WHICH I APPEARS	T Data slot that links the data with a sample clause.
ULM	Link with the <i>ULM</i> that appears in the wording of the clause.	CLAUSES	ULM slot that links the ULM with a sample clause in which it is used.
HEADING, CLAUSES, END	Part of a contract in which the clause in question is usually included.		

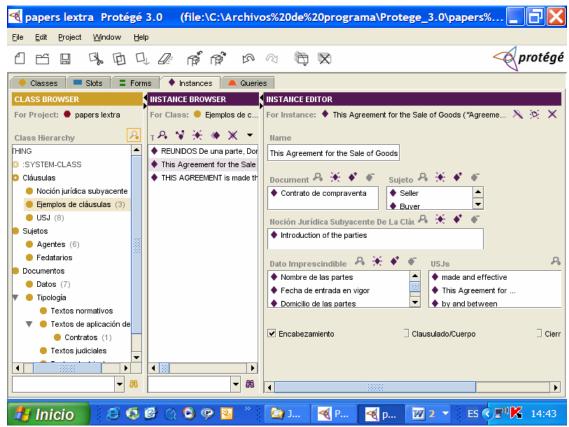


Figure 2: Image of the editor file for a sample clause.

The identification of ULMs within a clause must allow the legal translator to distinguish, within the clause, between free text and legally significant text that has both a referential function in the legal system and a conventional function within the textual genre. Furthermore, identifying the underlying legal notion makes it possible for the translator to understand the object of the clause and, through the notion itself, to associate the clause with others with the same object in the other language.

Descriptive fields for the <i>Units of legal meaning</i> category			
Slot	Description	Inverse slot	Description

SYNTACTIC STRUCTURE CONTAINING THE ULM	Reproduction of the syntactic structure of a clause or a segment of a clause in which the ULM in question is used.		
ESSENTIAL RELATED DATUM	Link with the data category in the documentation class which makes it possible to indicate the data that must necessarily appear when the ULM in question is used.	RELATED ULM	Data slot that links the data to the ULM habitually used for the indication thereof.
CLAUSES	Link with a sample clause in which the ULM in question is used.	ULMs	Sample clauses slot by means of which the clause is related to the ULM in which it appears.
CLAUSE NOTION	Link with the underlying notion of the clauses that usually contain the ULM in question.	ULM	Underlying legal notion slot by means of which a notion is related to the ULM habitually used for the purpose of expressing the former.
DOCUMENT ULM	Link with the <i>ULM</i> that appears in the wording of the clause.	CLAUSES	ULM slot that links the ULM with a sample clause in which it is used.

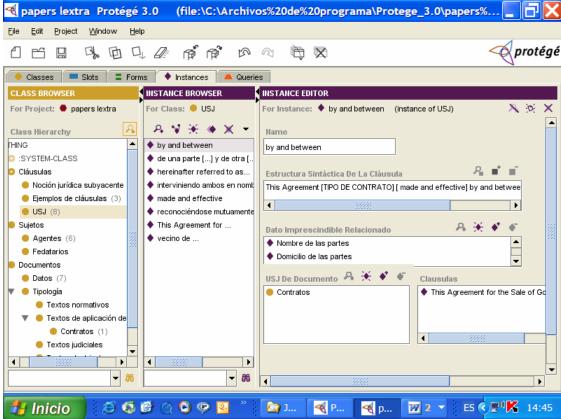


Figure 3: Image of the editor file for a ULM.

ULMs are essential for maintaining internal coherence within a document. Recognising them helps the legal translator to understand the clause and relate the accompanying information to the rest of the document. However, tackling them from a purely linguistic point of view is a common mistake, involving the translator merely considering their linguistic equivalent. With this ontology, the translator does not obtain direct information on equivalents, although he/she does obtain enough information to be able to identify and familiarise himself/herself with the contextual and conceptual behaviour of the ULM in question. Additionally, by means of an advanced search, the underlying legal notion makes it possible to locate clauses with similar objects in the other language and, in turn, to find out if equivalent ULMs are used.

4. Conclusions

In the area of legal knowledge, a conceptual level independent of language does not exist (nor is its existence possible), for which reason reproducing an "alinguistic" conceptual structure is out of the question. In fact, even if it did exist, for the purposes of translation, and in the field of legal translation in particular, equivalency could not be established solely on the basis of a conceptual level, as there are many other aspects that must be taken into account, such as the textual environment, the communicative situation, the translation commission, etc. For that reason, a system offering a solution for the conceptual level would still cause the legal translator to commit errors.

An ontology system combining terminology, underlying notions, documents, institutions and figures related to the legal field in a holistic fashion could become an essential resource for the legal translator. It would enable him/her to understand every aspect of the original and would provide him/her with the information necessary to draft a final text in accordance with the legal context and the translation commission. A system such as that proposed herein does not offer direct linguistic answers, but it does identify the various possibilities according to the characteristics to which the translator attributes most relevance, based on a precise description of each entry.

We are aware of the limitations of the two examples that we have used to illustrate this proposal for terminological management. We actually feel that the drawback to our proposal lies in the development of the ontology itself, something that would require the input of an interdisciplinary group of experts with the ability to distance themselves from the disciplines of law and translation studies in order to be able to recognise and describe terms in accordance with the parameters of the ontology. Nonetheless, we have no doubt that this resource would prove to be useful to the community of legal translators and, in particular, to anyone studying to become a translator.

Bibliography

- AGUILERA, E. (2002). El Derecho como campo de aplicación de la Inteligencia Artificial. [en línea] in *Eureka, Revista electrónica*. Instituto de Investigaciones Jurídicas, Universidad Nacional Autónoma de México < http://www.juridicas.unam.mx/inst/becarios/eureka/1/art1.htm> [Consulta: 19 de juliol de 2006].
- ALCARAZ, E.; HUGHES, B. (1993), Diccionario de términos jurídicos inglés-español, español-inglés. Barcelona, Ariel.
- ——— (1996), Diccionario de términos económicos, financieros y comerciales inglésespañol, español-inglés. Barcelona, Ariel.
- BERMAN, D.H.; HAFNER, C.D. (1993), "Representing Teleological Structure in Case-Based Legal Reasoning: The Missing Link", in *Proceedings of the 4th International Conference on Artificial Intelligence and Law.* Nueva York, ACM Press, p. 50-60.
- BOER, A.; VAN ENGERS, T; WINKELS, R. (2003). "Using Ontologies for Comparing and Harmonizing Legislation", in *Proceedings of the 9th ICAIL Conference*. Edimburg.
- BORJA, A. (2000a). El texto jurídico inglés y su traducción al español. Barcelona, Ariel.
- ——— (2000b) "The concept of equivalence in medical and legal translation", in *International Journal of Translation*, 12 (1-2).
- (2005a) "Organización del conocimiento para la traducción jurídica a través de sistemas expertos basados en el concepto de género textual", in García Izquierdo, I. (ed.) El género textual y la traducción. Reflexiones teóricas y aplicaciones pedagógicas. Berna, Peter Lang.
- (2005b): "¿Es posible traducir realidades jurídicas? Restricciones y prioridades en la traducción de documentos de sucesiones británicos al espanyol", in Monzó, E.; Borja, A. (ed.) (2005) La traducción y la interpretación en las relaciones jurídicas internacionales, Castelló de la Plana, Universitat Jaume I, p. 67-91.
- ——— (2001). Elaboració de corpus de documents per a la traducció especialitzada: corpus documental per a la traducció jurídica [en línea]. Castelló, http://sic.uji.es/publ/edicions/jfi5/corpus.pdf> [Consulta: 19 de juliol de 2006].
- Breuker, J. (2004) *Constructing a legal core ontology: LRI-Core*. [en línea] http://www.ws.onto.ufal.br/Papers/brazil-2004-ontology-ws.pdf> [Consulta: 19 de juliol de 2006].
- BREUKER, J.; VALENTE, A.; WINKELS, R. (2004). "Use and reuse of legal ontologies in knowledge engineering and information management", in *Artificial Intelligence and Law*.
- CAMMELLI, A.; SOCCI, F. (1998). "A Thesaurus for Improving Information retrieval in an Integrated Legal Expert System" in *Proceedings of the 9th International Workshop on Database and Expert Systems Applications*.
- DEN HAAN, N. (1996). *Automated Legal Reasoning*. Tesis doctoral. Amsterdam, Universidad de Amsterdam.
- DEN HAAN, N.; BREUKER, J.A. (1996). "Constructing normative rules", in Kralingen, R.van (ed.) (1996). *Proceedings of JURIX-96*. Tilburg, Tilburg University Press, p. 41-56.
- GANGEMI, A.; GUARINO, N.; MASOLO, C.; OLTRAMARI, A.; SCHNEIDER, L. (2002). "Sweetening ontologies with DOLCE", in Gómez-Pérez, A.; Benjamins, V.R. (eds.) *Proceedings of the EKAW-2002*, Springer, p. 166-178.
- GANGEMI, A.; PISANELLI, D.M.; Steve, G. (1999). "An Overview of the ONIONS project", in *Data* and *Knowledge Engineering* 31.

- ——— (2001). "A Formal Ontology Framework to Represent Norm Dynamics", in *Proceedings* of the Second International Workshop on Legal Ontologies. Amsterdam.
- GANGEMI, A.; PRISCO, A.; SAGRI, M.T.; STEVE, G.; TISCORNIA, D. (2003). "Some ontological tools to support legal regulatory compliance, with a case study", in *Proceedings of Workshop on Regulatory Ontologies and the Modeling of Complaint Regulations (WORM CoRe 2003)*, Springer LNCS, Catania.
- GARCÍA IZQUIERDO, I.; MONZÓ, E. (2003). "Corpus de géneros GENTT. Una enciclopedia para traductores" in *Traducción & Comunicación* 4, p. 31-53.
- (2005). "Del corpus a l'enciclopèdia: Concepció i construcció de l'enciclopèdia de gèneres GENTT", in Cabré, M.T.; Bach, C. (eds.) *Coneixement, Ilenguatge i discurs especialitzat*. Barcelona, Institut Universitari de Lingüística Aplicada, Universitat Pompeu Fabra/Documenta Universitària.
- GRUBER, T. R. (1993). "A Translation Approach to Portable Ontology Specifications", in *Knowledge Acquisition* 5, p. 199-220.
- Kraligen, R. van (1997). "A Conceptual Frame-based Ontology for Law", in *Proceedings fo the First International Workshop on Legal Ontologies,* Melbourne, Australia. http://webster.cs.uga.edu/~maduko/SemWeb/coc-frame-ont-for-law.pdf [Consulta: 19 de julio de 2006].
- MACLEOD, D. (1996). "The Internet, LEXIS and WESTLAW: A Comparison of resources for the legal researcher", in *Database* 19 (1), p. 50-57.
- MAYORAL, R. (2001). "Official (Sworn) Translation and Its Functions", in *Babel*, 46 (4), p. 300-331.
- ——— (2002). "¿Cómo se hace la traducción jurídica?", in *Puentes: hacia nuevas investigaciones en mediación intercultural*, 2, p. 9-14.
- ——— (2005). "¿Cuánto derecho debe saber el traductor jurídico?", in E. Monzó, E.; Borja, A. (ed.) *La traducción y la interpretación en las relaciones jurídicas internacionales*, Castelló de la Plana, Universitat Jaume I, p. 109-113.
- MONZÓ, E. (2003). "Corpus-based Teaching: The Use of Original and Translated Texts in the training of legal translators", in *Translation Journal* 7 (4). http://accurapid.com/journal/26edu.htm> [Consulta: 19 de juliol de 2006].
- ——— (2005a). "Cómo traducir derecho sin ser jurista: nuevas fuentes y métodos documentales para la traducción jurídica", in D. Sales Salvador (ed.) (2005) *La biblioteca de Babel. Documentarse para traducir*, Granada, Comares, p. 123-146.
- ——— (2005b). "Reeducación y desculturación a través de géneros en traducción jurídica, económica y administrativa", in I. García Izquierdo (ed.) El género textual y la traducción. Reflexiones teóricas y aplicaciones pedagógicas, Berna, Peter Lang, p. 69-92.
- ——— (2006). "La documentación del traductor jurídico (inglés-español)", in E. Ortega Arjonilla (ed.). *Introducción a la traducción jurídica y jurada (inglés-español)*, Granada, Comares.
- MONZÓ, E.; BORJA, A. (2000). "Organització de corpus. L'estructura d'una base de dades documental aplicada a la traducció jurídica", in *Revista de Llengua i Dret*, 34, p. 9-21.
- ——— (ed.) (2005). La traducción y la interpretación en las relaciones jurídicas internacionales, Castelló de la Plana, Universitat Jaume I.
- MORENO ORTIZ, A.; PÉREZ-HERNÁNDEZ, C. (1999). "Establecimiento de equivalentes de traducción mediante ontologías en un lexicón computacional multilingüe", in *Actas del XVII Congreso de AESLA*. Alcalá de Henares, 15-17 d'Abril de 1999.
- MORENO ORTIZ, A.(2000). "Diseño e implementación de un lexicón computacional para lexicografía y traducción automática", in *Estudios de Lingüística española* 9 http://elies.rediris.es/elies9/> [Consulta: 19 de juliol de 2006].
- Noy, N.F.; McGuinness, D.L. (2004). "Ontology Development 101:A Guide to Creating Your First Ontology" [en línea] http://protege.stanford.edu/publications/ontology_development/ontology101.html [Consulta: 19 de juliol de 2006].
- ORTEGA ARJONILLA, E. (2005). "La traducción jurídica, jurada y judicial: aspectos teóricos, metodológicos y profesionales", in Monzó, E.; Borja, A (ed.). *La traducción y la*

- interpretación en las relaciones jurídicas internacionales, Castelló de la Plana, Universitat Jaume I, p. 115-134.
- ——— (ed.) (2006). *Introducción a la traducción jurídica y jurada (inglés-español)*, Granada, Comares.
- O'SHEA, O.J.; WILSON, E. (1997). "European Law Databases: An Experiment in Retrieval", in *Proceedings of the 8th International Workshop on Database and Expert Systems Applications*, 227.
- SÁNCHEZ-GIJÓN, P.(2004). L'ús del corpus en la traducció especialitzada: compilació de corpus ad hoc i extracció de recursos terminològics. Barcelona, IULA UPF Departament de Traducció i d'Interpretació UAB.
- Santamaria, L. (2003). "Eines multidisciplinàries per a l'ensenyament de la traducció anglèscatalà: la traducció de contractes", in *Revista de Ilengua i dret* 39.
- ——— (2005). "Interacción de conocimientos en el aprendizaje de la traducción jurídica", in E. Monzóad A. Borja (eds.). *La traducción y la interpretación en las relaciones jurídicas internacionales*, Castelló de la Plana, Universitat Jaume I, p. 95-107.
- ——— (2006). "Els procediments de traducció en els textos jurídics" in E. Monzó (ed.). Les plomes de la justícia. La traducció al català dels textos jurídics, Barcelona, Pòrtic.
- SMITH, B. (2001) "Objects and their environments: From Aristotle to Ecological Ontology", in Frank, A.; Raper, J.; Cheylan, J.P. (eds.) (2001) *The Life and Motion of Socio-Economic Units (GISDATA 8)*, Londres, Taylor and Francis, p. 79-97.
- SOWA, J.F. (2000). *Knowledge representation: logical, philosophical and computational foundations*. Pacific Grove (California), Brooks/Cole.
- TURTLE, H. (1995). "Text Retrieval in the Legal World", in *Artificial Intelligence and Law* 3 (1/2), p. 5-54.
- VALENTE, A. (1995) Legal knowledge engineering: A modelling approach. Amsterdam, los Press.
- VALENTE, A.; BREUKER, J.A.; BROUWER, P.W. (1999). "Legal modelling and automated reasoning with ON-LINE" in *International Journal of Human Computer Studies* 51, p. 1079-1126.
- VISSER, P.; BENCH-CAPON, T. (1998). "A Comparison of four ontologies for the design of legal knowledge-based systems". Artificial Intelligence and Law 6.27-57.
- ——— (1999). "Ontologies in the Design of Legal Knowledge Systems, towards a Library of Legal Domain Ontologies" in *Proceedings of Jurix 99*. Bélgica, Leuven.
- ZALBERT, L.; SMITH, B. "Legal ontology and the Problem of Normativity". [en línea] Department of Philosophy, State University of New York at Buffalo. http://ontology.buffalo.edu/smith/articles/Normativity.pdf [Consulta: 19 de juliol de 2006].