Legislative Drafting in Multilingual Legal Orders and Computer-Assisted Translation Tools (Case Study: The European Union)

A Perspective of Constitutional Law

Enrico Albanesi*

Abstract

The article analyses the role of computer-assisted translation (CAT) tools in the European Union (EU). Such tools are of a great help in dealing with multilingualism within the EU legislative process, in particular in drafting legal acts in the twenty-four official languages of the EU. The article's original contribution to the current academic debate is twofold. First, it looks at these tools from a perspective of constitutional law to see if they are sufficiently transparent and do not jeopardize the role of human intelligence. Secondly, it analyses the potential role of CAT tools in the implementation/transposition of EU legal acts. One of the main problems when implementing/transposing EU legal acts within Member States comes from the use of legal terms by the EU legislator that sometimes have slightly different meanings from the meanings that those terms have within domestic legal orders. Two different approaches have been developed to deal with this issue: the copy-out approach and the interpretative approach. From this perspective, the article analyses whether and especially under which legal conditions some legal terms could be stored in the main EU termbase IATE (Interactive Terminology for Europe) according to the meaning that term has within the domestic legal order.

Keywords: computer-assisted translation tools, European Union, legal acts, transposition, implementation.

* Enrico Albanesi is an Associate Professor of Constitutional Law, Department of Law, University of Genoa, and Associate Research Fellow, Institute of Advanced Legal Studies (IALS), University of London.

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A Introduction

The aim of this article is to analyse from a perspective of constitutional law the risks and benefits of the use of computer-assisted translation tools (CAT tools) within EU decision-making procedures, with a comprehensive view that embraces also the transposition/implementation of EU legal acts within Member States.

It is essential to explain first what analysing CAT tools from a perspective of constitutional law means; to describe the scope of this research (i.e. the difference between 'EU decision-making procedures' and 'the transposition/implementation of EU legal acts') and to explain the reason for such a choice; to show the hypotheses that, just from the aforementioned perspective of constitutional law, the article aims at demonstrating.

As for the perspective of constitutional law, on the one hand, the article will examine CAT tools, including tools that rely on artificial intelligence, used by EU Institutions.

Under the proposal for a EU regulation on artificial intelligence,¹ an artificial intelligence system is a

software that is developed with one or more of the techniques and approaches listed in Annex I and can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with.

Under Annex I, those techniques and approaches are as follows: (a) machine learning approaches, including supervised, unsupervised and reinforcement learning, using a wide variety of methods, including deep learning; (b) logic- and knowledge-based approaches, including knowledge representation, inductive (logic) programming, knowledge bases, inference and deductive engines, (symbolic) reasoning and expert systems; (c) statistical approaches, Bayesian estimation, search and optimization methods. This definition will be taken here.

Artificial intelligence is posing one of the major challenges that constitutional law is currently facing: the immense power of artificial intelligence recalls the original vocation of constitutional law, i.e., limiting powers in order to safeguard constitutional values and human rights; however, due to its features, artificial intelligence is particularly fleeting, when it comes to limiting and scrutinizing it (due to its highly technological nature, its obscurity, the role played by the private sector in this field etc.). The current scholarly debate is focusing on reflecting upon constitutional values and human rights involved case by case and is proposing

1 See Proposal for a Regulation of the European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts, COM(2021) 206 final.

constitutional standards that need to be satisfied by the applications of artificial intelligence in the various fields of law. 2

If one looks at CAT tools used by EU Institutions, one would find that the constitutional value involved here is EU institutional multilingualism, and the relevant constitutional standards here, among the various standards that have been identified within the scholarly debate, are mainly: transparency, i.e., understanding how and why artificial intelligence systems give just *that* answer or take just *that* 'decision'³ (thus, how and why CAT tools used by EU Institutions give just *that* translation), and subsidiarity, i.e., when the system helps but does not wholly replace humans⁴ (thus, CAT tools used by EU Institutions must help but not wholly replace humans).

On the other hand, when it comes to multilingualism and CAT tools, *analysing themfroma perspective of constitutional law* also means looking at the decision-making process; that is one of the core issues of constitutional law.⁵ Such a perspective of constitutional law includes today also EU constitutional legal order and its interactions with Member States.⁶ In particular, as will be explained in a while, this means examining CAT tools used by EU Institutions not only from the perspective of EU decision-making procedures but also within a more comprehensive view that embraces also their impact on transposition/implementation of EU legal acts by Member States.

- O. Pollicino & G. De Gregorio, 'Constitutional Law in the Algorithmic Society', and A. Simoncini & E. Longo, 'Fundamental Rights and the Rule of Law in the Algorithmic Society', in H.-W. Micklitz et al. (Eds.), Constitutional Challenges in the Algorithmic Society, Cambridge, Cambridge University Press, 2021, respectively, pp. 6 and 30. From the different perspective of a common law system, see P. Daly, 'Administrative Law in the Age of Machines', Ottawa Faculty of Law Working Paper, No. 3, 2020.
- 3 G. Sartor & F. Lagioia, 'Le decisioni algoritmiche tra etica e diritto', and B. Caravita di Toritto, 'Principi costituzionali e intelligenza artificiale', in U. Ruffolo (Ed.), Intelligenza artificiale. Il diritto, i diritti, l'etica, Milano, Giuffrè, 2020, respectively, pp. 84 and 466.
- 4 C. Casonato, 'Costituzione e intelligenza artificiale: un'agenda per il prossimo futuro', BioLaw Jorunal-Rivista di BioDiritto, Vol. 25, 2019, p. 720, and A. Cardone, 'Decisione algoritmica' vs. decisione politica? A.I. Legge Democrazia, Editoriale Scientifica, Napoli, 2021, pp. 94 and 119.
- 5 H. Kelsen, Reine Rechtslehre, Vienna, Deuticke, 1960.
- M. Claes, Constitutionalising Europe: The Making of a European Constitutional Law, London, Bloomsbury Publishing, 2016, L.F.M. Besselink, "The Notion and Nature of the European Constitution after the Lisbon Treaty', in J. Wouters, L. Verhey & P. Kiiver (Eds.), European Constitutionalism Beyond Lisbon, Cambridge, Intersentia, 2009, p. 261, L.F.M. Besselink, A Composite European Constitution, Zutphen, Europa Law Publishing, 2007, M.P. Maduro, 'The Constitutional Treaty and the Nature of European Constitutionalism: The Tension between Intergovernmentalism and Constitutionalism in the European Union', in D. Curtin, A.E. Kellermann & S. Blockmans (Eds.), The EU Constitution. The Best Way Forward?, The Hague, Asser Press, 2005, p. 92, A. von Bogdany, 'The European Union as a Supranational Federation: A Conceptual Attempt in the Light of the Amsterdam Treaty', Columbia Journal of European Law, Vol. 6, 2000, p. 28, N. Walker, 'Flexibility within a Metaconstitutional Frame: Reflections on the Future of Legal Authority in Europe', in G. De Búrca & J. Scott (Eds.), Constitutional Change in the EU: From Uniformity to Flexibility?, Oxford, Hart, 2000, p. 9, N. MacCormick, Questioning Sovereignty. Law, State, and Nation in the European Commonwealth, Oxford, Oxford University Press, 1999, and I. Pernice, 'Constitutional Law Implications for a State Participating in a Process of Regional Integration. German Constitution and "Multilevel Constitutionalism", in E. Riedel (Ed.), German Reports on Public Law Presented to XV. International Congress on Comparative Law, Baden-Baden, Nomos, 1998, p. 43.

Legislative Drafting in Multilingual Legal Orders and CAT Tools

As for the scope of this research (and the reasons for such a choice), as just said, CAT tools will be analysed within EU decision-making procedures: the reason is that it is just within EU decision-making procedures that CAT tools are used by EU Institutions in order to produce EU legal acts in compliance with the EU principle of multilingualism. In particular, the ordinary legislative procedure under Articles 289 and 294 of the Treaty on the Functioning of the European Union (TFEU)⁷ will be taken here as an example to set the scene. However, due to the close interaction between the EU legal order and Member States, CAT tools will also be analysed from the perspective of the transposition/implementation of EU legal acts within domestic legal orders, in order to see whether CAT tools play a role (and could play a further role) in solving issues that are traditionally caused by the use of legal terms by the EU legislator that have slightly different meanings from the meanings that those terms have within domestic legal orders.

As for the hypotheses of this research, from the aforementioned perspective of constitutional law, it will be argued here that CAT tools used by EU Institutions: (i) are sufficiently transparent, provided that human experts are in charge and verify the output of the software; (ii) do not jeopardize the role of human intelligence; and (iii) play a useful role (and could play a further role) in the transposition/implementation of EU legal acts within domestic legal orders.

Before demonstrating such hypotheses, it will be essential to describe how EU Institutions deal with institutional multilingualism and how CAT tools, used by EU Institutions, work.

B EU Institutions and Multilingualism: Good Quality of Legislation as a Precondition for a Good Translation and the Tasks of the Various Directorates-General

There is no legal base for a EU action to promote and protect multilingualism. However, in developing institutional multilingualism, the EU was able to realize a European policy concerning multilingualism grounded on solid legal principles, such as the right to choose one of the twenty-four official languages of the EU when dealing with EU Institutions (Art. 41(1) Charter of Fundamental Rights of the European Union; Art. 24 TFEU); the principle under which the text of the Treaties is considered original in each version drafted into one of the official languages (Art. 55 Treaty on the European Union [TEU]); and the provision under which the rules governing the languages of the Institutions of the Union must be

⁷ W. Robinson, 'EU Legislation', in U. Karpen & H. Xanthaki (Eds.), Legislation in Europe. A Comprehensive Guide for Scholars and Practitioners, Oxford, Hart, 2017, p. 229.

determined by the Council, acting unanimously by means of regulations (Art. 342 TFEU). $^{\rm 8}$

The languages to be used by the EU are determined by Regulation No. 1/1958.⁹ In particular, under Article 4, regulations and other documents of general application must be drafted in the official languages (which, under Art. 1, are twenty-four). Under Article 5, the *Official Journal of the European Union* must be published in the official languages.

The European Court of Justice has stated some relevant principles in this field. First, it argued that multilingualism is related to the 'principle of legal certainty', which requires that EU legislation

must allow those concerned to acquaint themselves with the precise extent of the obligations it imposes upon them, which may be guaranteed only by the proper publication of that legislation in the official language of those to whom it applies. ¹⁰

Secondly, it stated that when there are discrepancies between different texts, no one language version can prevail:

the necessity for uniform application and accordingly for uniform interpretation makes it impossible to consider one version of the text in isolation but requires that it be interpreted on the basis of both the real intention of its author and the aim he seeks to achieve, in the light in particular of the versions in all ... languages, ¹¹

according to the criteria that will be mentioned below.

Thirdly, the Court argued that, in any case, there is no general principle of EU law that 'confers a right on every citizen to have a version of anything that might affect [their] interests drawn up in [their] language in all circumstances'. This means that, in compliance with the principle of proportionality, a limited number of working languages could be used so as to ensure that institutions could actually work. So work is a so we have a so

- J. Ziller, 'Lingue e politica linguistica nell'Unione europea', in Senato della Repubblica, Il linguaggio giuridico nell'Europa delle pluralità. Lingua italiana e percorsi di produzione e circolazione del diritto dell'Unione europea, Senato della Repubblica, Roma, 2017, p. 29. On EU multilingualism, see R.L. Creech, Law and Language in the European Union: The Paradox of a Babel 'United in Diversity', Zutphen, Europa Law Publishing, 2005. For a critical view, see C.J.W. Baaij, "The EU Policy on Institutional Multilingualism: Between Principles and Practicality', International Journal of Language and Law, Vol. 1, 2012, p. 14.
- 9 See Consolidated text: Regulation No. 1 determining the languages to be used by the European Economic Community.
- 10 See ECJ 11 December 2007, Case C-161/06, Skoma-Lux, para. 38.
- 11 See ECJ 12 November 1969, Case C-29/69, Stauder, paras. 3-4.
- 12 See ECJ 9 September 2003, Case C-361/01, Kik c. UAMI, para. 82.
- 13 Ziller, 2017, p. 33.

One should also bear in mind that the 'protection and promotion of a language' 14 or 'one or more official languages' 15 of a Member State are today also considered by the European Court of Justice as one of the main elements of national identity under Article 4(2) TEU. 16

In order to understand how EU Institutions deal with institutional multilingualism within the EU decision-making procedure when drafting EU legal acts, one should bear in mind how the quality of legislation is essential to assure an efficient translation of EU legal acts into the twenty-four official languages. ¹⁷ This element is expressly noted in the *Joint Practical Guide of the European Parliament, the Council and the Commission for Persons Involved in the Drafting of the European Union Legislation*. ¹⁸ Under the Guide,

The person drafting an act of general application must always be aware that the text has to satisfy the requirements of Council Regulation No 1, which requires that such acts be adopted in all the official languages. That entails *additional requirements* beyond those which apply to the drafting of a national legislative text. (5.1) (emphasis added)

In particular,

the original text must be particularly simple, clear and direct, since any over-complexity or ambiguity, however slight, could result in inaccuracies, approximations or complete mistranslations in one or more of the other Union languages. (5.2)

and

the use of expressions and phrases – in particular legal terms – that are too specific to a particular language or national legal system will increase the risk of translation problems. $(5.3)^{19}$

- 14 See ECJ 11 May 2011, Case C-391/09, Runevič-Vardyn, para. 85.
- 15 See ECJ 16 April 2013, Case C-202/11, Anton Las, para. 26.
- M. Claes, 'Negotiating Constitutional Identity or Whose Identity Is It Anyway?', in M. Claes et al. (Eds.), Constitutional Conversations in Europe, Cambridge, Intersentia, 2012, p. 229 and E. Albanesi, 'National Identity (under Art. 4(2) TEU) and Constitutional Identity (as Counter-Limits) Are Not the Same', in M. Belov (Ed.), Peace, Discontent and Constitutional Law. Challenges to Constitutional Order and Democracy, Abingdon, Routledge, 2021, p. 117.
- 17 I. Strandvik, 'Legal Harmonization Through Legal Translating: Texts That Say the Same Thing?', in C.J.W. Baaij (Ed.), The Role of Legal Translation in Legal Harmonization, Alphen aan den Rijn, Kluwer Law International, 2012, p. 35 and W. Robinson, 'Polishing What Others Have Written: The Role of the European Commission's Legal Revisers in Drafting European Community Legislation', Loophole. The Journal of the Commonwealth Association of Legislative Counsel, No. 1, 2007, p. 74.
- 18 See Joint Practical Guide of the European Parliament, the Council and the Commission for Persons Involved in the Drafting of the European Union Legislation, European Union, 2015.
- 19 F. Drexler, 'La qualità del diritto alla prova del multilinguismo come fattore di complessità della procedura legislativa', in Senato della Repubblica, 2017, p. 37.

An example can be given here, so as to understand how terminological ambiguity (or even the use of expressions and phrases that are too specific to a particular language or national legal system) will increase the risk of translation problems.

The European Commission used the English term 'Act' in some of its proposals for regulations, such as the Proposal for a Regulation of the European Parliament and of the Council on a Single Market for Digital Services (Digital Services Act) and Amending Directive 2000/31/EC (COM[2020] 825 final); the Proposal for a Regulation of the European Parliament and of the Council on Contestable and Fair Markets in the Digital Sector (Digital Markets Act) (COM[2020] 842 final); and the Proposal for a Regulation of the European Parliament and of the Council Establishing a Framework of Measures for Strengthening Europe's Semiconductor Ecosystem (Chips Act) (COM[2022] 46 final). In English, the term 'Act' means an Act of Parliament (or, in other words, a Statute), but it does not refer to any specific legal act within the EU legal order. This is the reason why the use of such a term produced translation problems. For example, in the Italian version of the first two aforementioned proposals, the term 'Act' was translated into 'legge' (respectively: 'legge sui servizi digitali' and 'legge sui mercati digitali'), which means not only 'Statute' but also 'legislation'; whereas in the Italian version of the third proposal the term 'Act' was translated into 'normativa' ('normativa sui chip'), which means 'legislation'. Therefore, the same ambiguous term ('Act' or, at least, the same too-specific-to-a-particular-language-or-national-system term) produced different translations ('legge' and 'normativa') within texts translated into the same linguistic version. This should be strictly avoided, as already mentioned. Luckily, in the final Italian version of the first two aforementioned proposals, the term 'Act' was translated with the correct word 'regolamento' ('regulation').20

Other examples, so as to understand how terminological ambiguity (or at least the use of expressions and phrases that are too specific to a particular language or national legal system) will increase the risk of translation problems can be found in Annex 2 to the Final Report of a research carried out by the Directorate-General Translation of the European Commission in 2015. 21

The importance of the quality of legislation in order to assure an efficient multilingual translation is reflected in the tasks of the various departments within the EU Institutions in the decision-making procedures.²²

As for the initiative, the text of the proposal is drafted by the relevant Directorate-General of the European Commission. This means the text is not

- 20 See Regolamento (UE) 2022/2065 del Parlamento europeo e del Consiglio del 19 ottobre 2022 relativo a un mercato unico dei servizi digitali e che modifica la direttiva 2000/31/CE (regolamento sui servizi digitali) and Regolamento (UE) 2022/1925 del Parlamento europeo e del Consiglio del 14 settembre 2022 relativo a mercati equi e contendibili nel settore digitale e che modifica le direttive (UE) 2019/1937 e (UE) 2020/1828 (regolamento sui mercati digitali).
- 21 See European Commission, Directorate-General for translation, Study on multilingual concordance. Final report, 27 February 2015, DGT.A/(2015)1190875.
- I. Strandvik, 'On Quality in EU Multilingual Lawmaking', in S. Šarĉević (Ed.), Language and Culture in EU Law. Multidisciplinary Perspectives, Farnham, Ashgate, 2016, p. 141, I. Strandvik, 'Is There Scope for a More Professional Approach to EU Multilingual Lawmaking?', The Theory and Practice of Legislation, Vol. 2, No. 2, 2014, p. 211 and M. Guggeis & W. Robinson, "Co-revision": Legal-Linguistic Revision in the European Union "Co-decision" Process', in Baaij, 2012, p. 51.

necessarily drafted by professional legislative drafters or by lawyers.²³ That is an example of decentralized model of legislative drafting where the relevant Directorate-General (such as Departments in Continental Europe) and not a central body within the Executive (such as the Office of Parliamentary Council in the United Kingdom) is tasked with drafting bills.²⁴ However, if compared to the drafting model established in Continental Europe (which has some unfortunate consequences from the perspective of the quality of legislation),²⁵ one of the pros of the machinery established in the European Union is that, as will be said in a while, experts in legislative drafting are involved upstream, in a very early stage of the drafting process (although not directly and immediately as is the case of the United Kingdom).

Quality review of the proposal is carried out by the Legal Service of the European Commission by lawyers who are experts in the relevant legal field and by experts in legislative drafting. At the European Commission the latter are called legal revisers. Quality revision aims not only at improving the quality of legislation as such but also, as mentioned, at allowing a more efficient translation into the other twenty-three official languages of the EU. $^{26}\,$

Translation of the proposal is then carried out by Directorate-General for Translation, where translators are tasked with this,²⁷ by using CAT tools, as will be seen below.

Once the proposal is adopted by the European Commission, the European Parliament and the Council start negotiating on it. Within both bodies, amendments are translated into each official language of the EU respectively by the Directorate-General for Translation of the European Parliament and the Translation Service of the Council.

Quality revision of the amendments is carried out by drafting experts who (with a different terminology from those of the European Commission) are called lawyer-linguists, ²⁸ in the Directorate for Legislative Acts of the Directorate-General for the Presidency of the European Parliament and in the Legal Service of the Council.

Finally, the legal act is adopted when the European Parliament and the Council agree on the same text.

- 23 Strandvik, 2014, p. 218 and Robinson, 2007, p. 71.
- 24 C. Stefanou, 'Comparative Legislative Drafting. Comparing across Legal Systems', European Journal of Law Reform, Vol. 18, No. 2, 2016, p. 123 and W. Robinson, 'Drafting EU Legislation in the European Commission: A Collaborative Process', The Theory and Practice of Legislation, Vol. 2, No. 3, 2014, p. 249.
- 25 E. Albanesi, 'Parliamentary Scrutiny of the Quality of Legislation in Europe', Statute Law Review, Vol. 42, No. 3, 2021, p. 320.
- 26 Robinson, 2007.
- 27 I. Strandvik, 'Towards a More Structured Approach to Quality Assurance: DGT's Quality Journey', in F. Prieto Ramos (Ed.), Institutional Translation for International Governance. Enhancing Quality in Multilingual Legal Communication, London, Bloomsbury, 2017, p. 51.
- 28 M. Guggeis, 'I giuristi linguisti e le sfide per garantire concordanza, qualità redazionale e correttezza terminologica giuridica nei testi normativi dell'Unione europea', in Senato della Repubblica, 2017, p. 57.

C CAT Tools Used by EU Institutions Within EU Decision-Making Procedures

ICT tools used within EU decision-making procedures are as follows.

First, the EU Institutions rely on 'ordinary' Microsoft Word writing programmes when drafting legal acts. Such tools are particularly useful from the perspective of the quality of legislation: legal acts are drafted by using templates framed by the Legal Services. Moreover, such tools can also improve the text when it comes to its language. One should remember that the base text on which negotiations are carried out²⁹ is most often drafted in English (that is a language that poses some problems, anyway),³⁰ but sometimes in French as well, and drafters are not necessarily native English (or French) speakers: the use of writing programmes can thus help solve linguistic issues concerning spelling, grammar or text style.³¹ This role played by ICT tools is particularly useful, if one thinks of what has been said above about the importance of the quality of legislation and the following translation.

Secondly, the EU Institutions use CAT tools which are of special interest here, especially when based on artificial intelligence: such tools are most efficient to deal with multilingualism. One should bear in mind that, with twenty-four official languages and five hundred and fifty-two possible language combinations in translation, artificial intelligence can self-learn from the huge amount of digitally stored past translations and achieve results that humans could not. 33

The CAT tools that are currently used by EU Institutions can be seen as an adaption and further development of the commercialized software for computer-assisted translation called *SDL Trados Studio*,³⁴ relying in particular on the translation memory database EURAMIS (*European Advanced Multilingual Information System*) and the terminological database IATE (*Interactive Terminology for Europe*).³⁵ The European Commission is also putting huge efforts in developing *eTranslation*, the EU's own machine translation engine, which is being used together with the translation memories for further efficiency gains.³⁶

EURAMIS is a translation memory, viz., a database where all written translations of the EU Institutions in all EU official languages since the 1990s are stored. There are more than 1 billion segments, and they primarily concern

- 29 Robinson, 2007.
- 30 B. Pozzo, 'English as a Legal Lingua Franca in the EU Multilingual Context', in Baaij, 2012, p. 183.
- 31 Robinson, 2007, p. 80.
- 32 A. Pym, 'Translation as an Instrument for Multilingual Democracy', *Critical Multilingualism Studies*, Vol. 1, No. 2, 2013, p. 92.
- 33 V. Mavrič, 'Controlling Complexity Resource-Efficient Translation in the European Parliament', International Journal of Translation, Vol. 18, 2016, p. 101.
- 34 C. Lecci & E. Di Bello, Usare la traduzione assistita, Bologna, CLUEB, 2012, and E. Di Bello, C. Lecci & E. Zanchetta, 'Traduzione automatica e traduzione assistita', in G. Bersani Berselli (Ed.), Usare la traduzione automatica, Bologna, CLUEB, 2011, p. 47.
- 35 I. Strandvik, 'Digital Transformation and Institutional Translation Change and Challenges', in J.-M. Dalla-Zuanna & C. Kurz (Eds.), Translation Quality in the Age of Digital Transformation, Rijskik, Houtschild, 2020, p. 466.
- 36 Strandvik, 2020.

legislative texts. Segments are provided with metadata, making it clear what context they come from. 37

IATE³⁸ is an inter-institutional termbase where more than 8 million terms in all EU official languages are stored. More than 1 million of them are provided with metadata (such as the source, the definition and the context where the term comes from). Those metadata make the IATE termbase different from a common dictionary.³⁹ IATE is partially available to the public.⁴⁰ The data stored in IATE are mostly entered by translators and terminologists working in the language services of EU Institutions. Some of the data are provided by external contractors. There are many duplicate entries for the same concept because each institution used to have its own terminology database until 2004, when the contents of all these databases were brought together in IATE. However, terminologists and linguists are still constantly working to merge and delete duplication, in order to get rid of data that are duplicated or not sufficiently reliable.

D EU CAT Tools Are Transparent (Provided That Human Experts Are in Charge and Verify the Output of the Software) and Do Not Jeopardize Human Intelligence

It is now time to demonstrate the hypotheses of this article.

The first two hypotheses concerned whether CAT tools used by EU Institutions were sufficiently transparent and did not jeopardize the role of human intelligence. As already mentioned, these two are two parameters of constitutional law that look here especially suitable to examine CAT tools used by EU Institutions, among the various that have been identified by the current scholarly debate to examine systems of artificial intelligence.

First, it can be argued here that, although it is not possible to directly understand the reasons why the software generated a certain translation, CAT tools used by EU Institutions are sufficiently transparent, provided that experts (translators or lawyer-linguists), and not the tools, are in the driving seat. In other words, the algorithm is a black box, but the CAT tool shows metadata that can be used by a (human) expert to check the results generated by the algorithm. From this perspective, and only at those conditions, one can say that CAT tools used by EU Institutions are sufficiently transparent.

As noted above, the segments stored in the EURAMIS translation memory are provided with metadata concerning the context the terms come from, and the terms stored in the IATE termbase are provided with metadata concerning the source, the definition and the context of the terms. If one looks at this feature from the perspective of technological transparency, this means that provided that an expert checks the retrieved or machine-generated translation against relevant

³⁷ Mavrič, 2016.

³⁸ M. Barbera, E. Corino & C. Onesti, 'Linguistica giuridica italiana on line. Dalle banche dati alla linguistica dei corpora', in Senato della Repubblica, 2017, p. 123.

³⁹ M. Chromá, 'A Dictionary for Legal Translation', in Baaij, 2012, p. 109.

⁴⁰ See https://iate.europa.eu/home.

metadata or references, it is possible to rather quickly verify whether the software retrieved the right segments or made the right 'decisions' when translating. On the other hand, if one looks at the aforementioned feature from the perspective of the reliability of the translation generated by the computer, this also means that it is possible to quickly verify metadata and references and thus somehow check the reliability of the computer-generated translation.

It is also important to note that the IATE website clearly and explicitly states that the reliability of the termbase depends on the past termbase the terms come from; therefore, the user should assess each solution on its merits and use their own judgments and the clues provided by the termbase to assess the reliability of the terms. The FAQ section in the IATE website, under the question 'How reliable are the terms in ITAE?' reads as follows:

It depends. Some of the material in IATE is very old and has never been properly checked, so its quality is bound to be lower than we would like. Some of the material is recent and results from extensive research on the part of terminologists and from the consultation of experts. And, of course, there is a lot in between those extremes. It is therefore important that you assess each solution on its merits. A term with a low reliability value and no additional information probably shouldn't be taken at face value. On the other hand, a term accompanied by a definition and supported by reliable references and other information is something you can probably trust. Use your own judgement and these clues to assess the reliability of the terms.

In other words, this is a clear message to those who use the public version of the database (and who are not experts) that the IATE as such is not fully transparent and reliable. However, as already said, CAT tools used by EU Institutions are reliable, provided that an expert checks the retrieved or machine-generated translation against relevant metadata or references offered by CAT tools themselves.

Secondly, it can be therefore argued here that CAT tools used by EU Institutions do not jeopardize human intelligence, considering that singularity – the point where the machines no longer need the human – is not really around the corner. Obviously, because transparency is a *legal* (better say, constitutional) parameter, and because algorithms are a black box, the CAT tools used by EU Institutions *must not* be allowed to function in a way that jeopardizes human intelligence and expertise, and it is the experts (translators or lawyer-linguists) who *must be* in the driving seat and not the tools, even if in the future singularity would make it possible.

This can be said from three different perspectives: that of translation, that of interpretation and that of transposition/implementation of EU legal acts.

As for translation, one should bear in mind that the outputs of CAT tools are just an aid for the work of translators: as already mentioned, with twenty-four official languages and five hundred and fifty-two possible language combinations in translation, artificial intelligence can self-learn from the huge amount of digitally

41 Strandvik, 2020.

stored past translations and produce output faster than any human could. However, to be reliable those outputs are checked downstream by translators who work within EU Institutions. In other words, CAT tools are a potential help but cannot resolve linguistically hard cases that only a translator can resolve.⁴² In other words, human intelligence is not jeopardized (and *must* not be jeopardized) because there is still room (and *must* be room) for it in the translating stage.

As for the interpretation, it has been noted above that, under the *Stauder* doctrine, when there are discrepancies between different texts, no one language version can prevail. On the contrary, the necessity for uniform application and, accordingly, for uniform interpretation, makes it impossible to consider one version of the text in isolation but requires that it be interpreted on the basis of both the real intention of its author and the aim they seek to achieve, in the light in particular of the versions in all languages. In this light, the European Court of Justice has developed some criteria in order to interpret texts;⁴³ e.g., it focuses on both the real intention of the author of the text and the aim it seeks to achieve, i.e., a 'functional approach' according to the *effet utile* principle: the linguistic version that suits best to the aims of the act should prevail.⁴⁴ In other words, human intelligence is not jeopardized (and *must* not be jeopardized) because there is still room (and *must* be room) for it in the interpretation stage.

As for the transposition/implementation, one should bear in mind that transposition/implementation is never an 'automatic' operation. This is also the case when it comes to terminology, even it is apparently a 'simple' transposition/implementation of a EU legal act that is in the same EU official language of the domestic legal order where that legal act is being implemented/transposed: it is not always possible that the legal terms used within the EU carry a clear meaning, or even a correspondent legal term, within a domestic legal order. As will be seen below, different approaches in transposing/implementing EU legal acts have been developed within domestic legal orders in order to resolve this issue. However, the point is that, once again, it must be ensured that human intelligence is not jeopardized (and *must* not be jeopardized), because there is still room (and *must* be room) for it in the transposition/implementation stage.

E EU CAT Tools and Their Impact on Transposition/Implementation of EU Legal Acts

The third hypothesis was that CAT tools play a useful role (and could play a further role) in the transposition/implementation of EU legal acts within domestic legal orders.

- 42 J. Husa, 'Understanding Legal Languages: Linguistic Concerns of the Comparative Lawyer', in Baaij, 2012, p. 180.
- 43 K. Paluszek, 'Multilingualism and Certainty of Law in European Union', in R. Sousa-Silva et al., Bridging the Gap(s) between Language and the Law, Porto, Faculdade de Letras da Universidade do Porto, 2015, p. 104 and M. Derlén, Multilingual Interpretation of European Union Law, Alphen aan den Rijn, Wolters Kluwer Law, 2009, p. 31.
- 44 Ziller, 2017, p. 35.

Such a role is played by CAT tools with regards both to the transposition of directives (viz. the adoption of national rules embodying the obligations laid down by a EU directive)⁴⁵ and to the implementation of directives or regulations (viz. the adoption of national rules to give effect to binding EU legal acts, whether directives or regulations). This is the reason why the words used here will be 'transposition/ implementation'.

When Member States have to deal with the transposition of directives, from the perspective of EU law, drafting issues mainly concern the actual compliance to the obligation to transpose the directives themselves, ⁴⁶ plus the 'gold-plating' issue. ⁴⁷ From the perspective of domestic law, drafting issues mainly concern the selection of proper tool (i.e. primary or secondary legislation) and the definition of the scope of transposition. ⁴⁸ A part from that, 'transposition is ultimately a legislative drafting exercise' and ordinary drafting rules can be applied ⁴⁹ (although there is still the problem of reconciling the drafting rules and practices of the Member States with the rules and practices of the EU). ⁵⁰

Apart from that, the only drafting issue is the proper use of legal terms within domestic legal orders. Legal terms that are used within the EU do not always have a clear meaning or even a correspondent legal term within a domestic legal order, although the EU legal act is in the same EU official language of the domestic legal order where that legal act is being implemented/transposed.

Two different approaches have been elaborated domestically to deal with that issue: the copy-out approach, which is to replicate in the domestic legal act the term used in the EU legal act, and the interpretative approach, which is to render into a precise domestic legal term the understood intention of the EU legislation. The principal argument in favour of the interpretative approach is that it will produce the same degree of precision as that which domestic courts regularly expect and will make it unnecessary for the courts or the citizens to have to discover the terms and probable intention of the EU legislation. On the contrary, the copy-out approach can avoid the false accuracy that the interpretative approach

- 45 B. Steunenberg & W. Voermans, The Transposition of EC Directives. A Comparative Study of Instruments, Techniques and Processes in Six Member States, Nijmegen, Wolf Legal Publisher, 2006.
- 46 E. Versluis, 'Even Rules, Uneven Practices: Opening the "Black Box" of EU Law in Action', West European Politics, Vol. 30, No. 1, 2017, p. 50, C. Harlow & R. Rawlings, Process and Procedure in EU Administration, Oxford, Hart, 2014, p. 173 and S. Gáspár-Szilágyi, 'What Constitutes "Failure to Notify" National Directives?', European Public Law, Vol. 19, No. 2, 2013, p. 283.
- 47 W. Voermans, 'Gold-plating and Double Banking: An Overrated Problem?', in H.Snijders & S. Voganauer (Eds.), Content and Meaning of National Law in the Context of Translational Law, Munich, Sellier European Law Publisher, 2009, p. 79.
- 48 H. Xanthaki, Drafting Legislation: Art and Technology of Rules for Regulation, Oxford, Hart Publishing, 2014, p. 154.
- 49 Xanthaki, 2014, p. 163 and D. Greenberg, Craies on Legislation: A Practitioners' Guide to the Nature, Process, Effect and Interpretation of Legislation, London, Sweet & Maxwell, 2012, p. 211.
- 50 R. Lanceiro, 'How to Reconcile the Drafting Rules and Practices of the Member-States with the Rules and Practices of the EU?', in P. Popelier et al. (Eds.), Lawmaking in Multi-level Settings. Legislative Challenges in Federal Systems and the European Union, Baden-Baden, Nomos, 2019, p. 265 and L. Tafani & F. Ponte, 'Le tecniche legislative statali, regionali e dell'Unione europea a confronto. Per un auspicabile riavvicinamento', Osservatorio sulle fonti, No. 1, 2022, p. 447.

could sometimes lead to, because the use of a different term than the one used in the EU legislation could seriously mislead the courts and citizens. 51

As has been noted, 'even though more and more Member States opt for copying out as much as possible, elaboration is still favoured on occasion.' In Italy, e.g., the Council of State stated in 2002 that, when transposing directives, the Italian legislator must not confine itself to copying the wording of the Italian version of the EU legal text: it must analyse the content of the provisions to be transposed and check whether the concept expressed therein is consistent with the same concept or with similar concepts already existing in domestic legal order and identify, to that end, the most effective term for transposing into our legal order the concepts that the EU legal act intend to express. Si

What criteria should be followed when choosing between the copy-out approach and the interpretative approach, then?

First, as has been noted, the copy-out approach can be followed only when there is a semantic correspondence between the EU legal term and the domestic legal term. Otherwise, the interpretative approach should be chosen. 54

Second, the intention of the EU legislator should also be taken into account: it has been noted that

where the intention of an expression is clear, perhaps because of the context of the directive or its purpose as stated in the preamble, it is indeed helpful to make that intention clear on the face of the implementing legislation;

however,

where there is significant doubt, any attempt to resolve the doubt by using an expression which has a clear meaning at [domestic] law is merely misleading. 55

CAT tools already play a role (and could play a further role in the future) in resolving these kinds of issues.

First, CAT tools already play a role in resolving these kinds of issues. EU legal language is already 'contaminated' by domestic legal terms, since EU linguists and terminologists already tend to store domestic legal terms, insofar as this is suitable. Unsurprisingly, such storage is carried out by EU Institutions (mainly, the European Commission) in coordination with domestic authorities.

- 51 Greenberg, 2012, p. 211 and D. Greenberg, "The "Copy-Out" Debate in the Implementation of European Union Law in the United Kingdom', *Legisprudence*, Vol. 6, No. 2, 2012, p. 243.
- 52 W. Voermans, 'Transposition of EU Legislation into Domestic Law: Challenges Faced by National Parliaments', in P. Popelier et al., 2019, p. 241.
- 53 See Consiglio di Stato, sezione atti normativi, 26 August 2002, No. 2636. On Italy see L. Tafani, 'Enhancing the Quality of Legislation: The Italian Experience', The Theory and Practice of Legislation, Vol. 10, No. 1, 2022, p. 5 and E. Albanesi, 'A mo' di appunti in vista di un auspicabile aggiornamento, vent'anni dopo, delle Circolari di drafting del 2001: alcune regole ad oggi "mancanti", Osservatorio sulle fonti, No. 1, 2022, p. 512.
- 54 L. Tafani, 'Il fattore linguistico nel recepimento delle direttive europee', in Senato della Repubblica, 2017, p. 206.
- 55 Greenberg, 2012, p. 212.

However, it could be wise to set a series of strict legal criteria to understand where such a storage is suitable. General reflections, which have already been carried out by some scholars (although regarding the suitability of using national legal terms when *translating*), could be of some help here, when it comes to *storing* terms in EU termbases.

From this perspective, the rule under paragraph 5.3 of the *Joint Practical Guide*, already mentioned above, is that 'the use of expressions and phrases – in particular legal terms – that are too specific to a particular language or national legal system will increase the risk of translation problems'. On the contrary, it has been noted that translators should use domestic legal terms when they refer to concepts that are common to all Member States (e.g. in the field of consumer protection, terms such as 'contract', 'consumer', 'trader', 'financial services', 'goods', 'unfair commercial practices', 'liability for defective products', 'product safety', 'damage'). These rules concern translation. However, *mutatis mutandis*, this can also be said with regards to storing domestic legal terms in the EU termbase: such a storage looks suitable only when concepts are common to all Member States.

The storing of such terms in the termbase used by EU Institutions would help a smooth and homogenous translation of EU legal acts, and thus a smooth and homogenous transposition/implementation within domestic legal orders, because the terms used when translating are already expected to be in compliance with the meaning that terms have in domestic legal orders.

Secondly, CAT tools could play a further role in resolving the aforementioned kinds of issues. Termbases should be framed gathering terms under an ontological layer (i.e. a layer that aligns concepts at the EU level) and a lexical layer (i.e. a layer that aligns concepts in the official domestic language). The ontological layer is a layer where concepts are linked, using metadata, by taxonomical as well as object-property relationships. The lexical layer is a layer where concepts are linked, using metadata, by linguistic relationships (hypernymy, hyponymy, meronymy etc.).

If framed this way, termbases could help translators in understanding exactly the relationships between concepts used in EU legal acts, by taxonomical or object-property relationships: e.g., the relationship between the term 'commercial transaction' and the terms 'supplier' and 'consumer', i.e., an object-property relationship. The same could be said for relationships between those concepts and the various meanings of those concepts in the official domestic language, by linguistic relationships – e.g., the relationship between the term 'supplier' and the terms 'goods suppliers' and 'services suppliers', i.e., a hyponymy relationship.

An example concerning the term 'electronic signature' could allow the reader to understand how a termbase, which gathered terms in ontological and linguistic relationships, could help translators choose the right domestic legal term. In such

⁵⁶ S. Šarĉević, 'Coping with the Challenges of Legal Translation in Harmonization', in Baaij, 2012, p. 98.

⁵⁷ A. Boer, T. van Engers & R. Winkels, 'Using Ontologies for Comparing and Harmonizing Legislation', in ICAIL'03: Proceedings of the 9th International Conference on Artificial Intelligence and Law, Association for Computer Machinery, New York, 2003, p. 60.

a termbase, the translation of the EU legal term 'electronic signature' could be linked to two different (e.g. Italian) translations: a more general concept, such as 'firma elettronica' ('electronic signature'), or more specific concepts, such as 'firma elettronica qualificata' ('qualified electronic signature') or 'firma digitale' ('digital signature').

If translators could rely on such a termbase, they could easily understand the meanings of EU legal terms in domestic legal orders and choose accordingly the most suitable when transposing/implementing the EU legal act. ⁵⁸ Some prototypal termbases have been framed this way, not just with the aim of assuring terminological coherence within EU law (i.e. for EU legislator) but also to ensure coherence outside EU law, i.e., when transposing/implementing EU legal acts in domestic legal orders (i.e. for domestic legislator). ⁵⁹

As one could clearly realize, such termbase could be of great help when transposing/implementing EU legal acts within Member States because the ontological and lexical layers could show domestic legislator the proper layer the term refers to in the EU legal act; therefore, this would allow domestic legislator to see whether any 'adjustment' is required when transposing/implementing EU legal acts within their domestic legal order.

F Conclusions

This article tried to look at CAT tools (including those based on artificial intelligence) used by the EU Institutions from a perspective of constitutional law.

When it comes to the use of CAT tools by EU Institutions, the relevant EU constitutional value is the institutional multilingualism. One of the aims of this article was to check whether such CAT tools were in compliance with constitutional standards such as transparency (i.e. the interest to understand how and why the artificial intelligence system gives that answer or takes that 'decision', in this case how and why CAT tools used by EU Institutions give that translation) and subsidiarity (i.e. the need that the system helps but does not wholly replace humans, in this case the need that CAT tools used by EU Institutions help but not wholly replace humans). The other aim of this article was to check whether CAT tools play a useful role (and could play a further role) in the transposition/implementation of EU legal acts within domestic legal orders.

The results of this research have shown that CAT tools used by the EU Institutions are transparent, provided that human experts are in charge and verify the output of the software, be it retrieved and already translated segments from earlier documents or machine-translated output. This verification against metadata and references also tests the reliability. Accordingly, the CAT tools do not jeopardize (and *must* not jeopardize) the role of human intelligence, because there is still room

- 58 G. Ajani et al., 'Terminological and Ontological Analysis of European Directives: multilinguism in Law', in ICAIL '07: Proceedings of the 11th International Conference on Artificial Intelligence and Law, Association for Computer Machinery, New York, 2007, p. 43.
- 59 T. Agnoloni et al., 'A Two-level Knowledge Approach to Support Multilingual Legislative Drafting', in J. Breuker et al. (Eds.), Law, Ontologies and the Semantic Web, Amsterdam, Ios Press, 2009, p. 177.

(and *must* be room) for it in terms of not only human translation but also interpretation and transposition/implementation of EU legal acts, beside computer-assisted translation.

The second aim of the article was to check whether CAT tools play a useful role (and could play a further role) in the transposition/implementation of EU legal acts within domestic legal orders. It has been demonstrated here that CAT tools already play a role in resolving the issue concerning the discrepancy between the meaning of legal terms in EU legal acts and the meaning of legal terms in domestic legal orders: CAT tools already 'contaminate' EU legal language when domestic legal terms are stored in EU termbases. However, as demonstrated here, this can be done only in certain strict legal conditions. Storing such terms in the termbase used by EU Institutions would help a smooth and homogenous translation of EU legal acts, and thus a smooth and homogenous transposition/implementation within domestic legal orders, because the terms used when translating are already expected to be in compliance with the meaning that terms have in domestic legal orders.

Moreover, CAT tools could play a further role: if based on ontological and lexical layers, termbase tools could show domestic legislator the proper layer the term refers to; therefore, this would allow domestic legislator to see whether any 'adjustment' is required when transposing/implementing EU legal acts within their domestic legal order.

At the end of the day, a positive judgment can be given when looking from a perspective of constitutional law at the CAT tools used by the Institutions, provided that experts (translators or lawyer-linguists), and not the tools, are in the driving seat.