

**LAWS CLEARLY: LARGE LANGUAGE MODELS AND PLAIN LANGUAGE
TRANSFORMATION**

Abstract

One crucial aspect of access to justice and access to legal information is the comprehensibility of legal text. The complexity and specialized terminology of legal language often prevents citizens from understanding legal texts and representing themselves effectively in legal proceedings. The new developments of Machine Learning, such as solutions based on Large Language Models, could represent a significant advancement in access to legal information, as they can transform complex legal texts into more straightforward, more understandable forms for laypeople. This paper attempts to exploit the capabilities of OpenAI's GPT-4 model to produce automatic Plain Language transcriptions of legal texts. The experiment concerns four specific linguistic features, and the results are analyzed manually from both a legal and a linguistic point of view.

Keywords: Access to legal information, Comprehensibility, Plain Language, Large Language Models, GPT-4

1. Introduction

The research topic of access to justice has been a significant area in legal studies for more than half a century, particularly in Socio-Legal studies. Over the past decades, two main research directions have emerged (Gomes 2019: 360). The first focuses on the input side, which examines the opportunities for access to various legal institutions and tools. The second concentrates on the output side, where the fairness and equality of judicial decisions are analyzed. This study emphasizes the input side, particularly regarding access to legal information and its comprehensibility.

Access to legal information encompasses multiple dimensions. It includes accessing primary legal sources such as laws, regulations, and court judgments. Thanks to digitalization, access to this kind of information in European continental legal systems is primarily free and online. Thus, it is no longer a significant issue. However, the ability to process legal information has become increasingly important. Keeping up to date with legal changes and understanding the structures of legal documents require expertise, which even traditional legal technologies have tried to support in the past years, allowing

citizens without legal expertise easier access to relevant legal information (Vági et al. 2024).

Another crucial aspect of access to legal information is the comprehensibility of legal text (Arató 2022; Arató–Balázs 2022). The complexity and specialized terminology of legal language often prevents citizens from understanding legal texts and representing themselves effectively in legal proceedings. Legal language differs from everyday language usage in that it uses specialized terminology, and both reduces and recontextualizes the facts of a legal case to highlight the 'legally relevant facts' that are crucial for resolving the case and representing it in court (Branting et al. 2020; Westermann et al. 2023).

Improving the comprehensibility of legal texts for laypeople is among the goals of the Plain Language Movement. This movement began in the United States in the mid-20th century and seeks to simplify legal language to democratize access to justice (Dobos 2015; Vinnai 2018; Tóth 2023; Balázs 2023). Transparency and predictability of the law is a fundamental requirement of the rule of law. Unnecessary linguistic complexity and vagueness obscure the meaning of a text. Proponents of Plain Language argue that reducing such unnecessary linguistic complexity can significantly improve the overall quality of the text. To achieve this goal, they propose and specify language changes that they believe will improve the overall comprehensibility of the text.

Therefore, this study investigates how solutions based on large language models (LLMs), such as Chat GPT, can improve the comprehensibility of legal texts for laypeople, thereby increasing access to justice. The application of LLMs could represent a significant advancement in access to legal information, as they can transform complex legal texts into more straightforward, more understandable forms for everyone. The structure of the study is as follows. Section 2 provides an overview of related works on improving the comprehensibility of legal texts with rule-based, machine learning, and LLM approaches. Section 3 introduces the methodologies and the setup of the experiment used to investigate the capabilities of LLMs in transforming complex legal texts into Plain Language. Section 4 shows the results. Section 5 concludes.

This paper thus discusses a new dimension of legal research, focusing on the relationship between technology and justice, where the most modern Machine Learning tools attempt to address the question of access to justice.

2. Related works

Improving the comprehensibility of legal texts has long been a focus within both classical legal studies and the interdisciplinary field at the intersection of law and technology. Efforts to enhance the accessibility of legal language can be categorized based on the methodologies employed: rule-based approaches, traditional Machine Learning (ML) techniques, and, more recently, approaches that leverage the capabilities of Large Language Models (LLMs). Consequently, this literature review is organized according to these categories to provide a comprehensive overview of the existing solutions.

Subsection 2.1. delves into rule-based solutions. Subsection 2.2. explores traditional ML tools applied to legal text comprehension. These methods utilize statistical models and pattern recognition to enhance the readability and accessibility of legal documents. Subsection 2.3. examines the capabilities of LLMs, a cutting-edge development in AI. These models, trained on vast text corpora, exhibit a remarkable ability to understand and generate human language, making them powerful tools for simplifying and clarifying legal texts.

2.1. Rules-based approaches

The most common method is to give linguistic suggestions to support comprehensibility, so that a new, easily understandable version of the text can be produced. These guidelines are mostly addressed to linguists or legal experts and aim to provide a standardized framework to produce accessible transcriptions of legal/official texts. Similar initiatives already have a long history.

In the United States, for instance, on 13 October 2010, President Barack Obama signed into law the Plain Writing Act of 2010, confirmed by three subsequent presidential decrees (URL1). The law requires each government agency to use Plain Language (PL) in all documents it issues or revises, to train its employees to use PL, and to establish administrative procedures to comply with the law. It also requires that a dedicated section be created on the websites of the relevant agencies to provide a forum for addressing inquiries about the provision. Finally, it requires organizations to appoint a contact person to deal with the topic.

As a follow-up, in 2011 the US government issued a set of federal PL guidelines called the Federal Plain Language Guidelines (URL2). They set out in detail the standards they believe a plain language text should meet. The

document also makes a direct link between government communication and academic research by citing related linguistic research (e.g., Garner 2001; Murawski 1999: 73–5; Charrow & Erhardt & Charrow 2007; etc.).

The latest achievement in this area is the development and publication of an international standard for PL (URL3). The standard was published by the International Organization for Standardization in June 2023. The structure and principles of the document follow the definition on the International Plain Language Federation (PLF) website (URL4). The International Plain Language Federation is an umbrella organization that brings together international plain language associations and expert groups, such as the Centre for Plain Language, the Clarity-international, which has its own journal and conference series on the subject, or the Plain Language Association International.

The most common formulation associated with the PLF is; “A communication is in plain language if its wording, structure, and design are so clear that the intended readers:

- can easily find what they need,
- understand what they find,
- and use that information.”

The recently published ISO standard also contains linguistic suggestions in this spirit (e.g. converting Light Verb Constructions to active voice, avoiding archaic terms, etc.).

A similar initiative in the field of continental law is the German model. In the terminology used there, *Einfache Sprache* “style” comes closest to the expectations of the Anglo-Saxon countries regarding PL. It is in fact a “direct” way of expressing oneself, aimed at people who have average language skills (prototypical native speakers) but who want to understand the information addressed to them quickly and effectively. In this context, Pottmann (2020: 83), for example, highlights the following linguistic features as a follow-up;

1. simple and coherent sentence structure, without mental jumps,
2. simple sentences of no more than 10-11 words, or compound sentences of no more than 15 words, provided that a subordinate clause is included - preferably only one of these should be included in the sentence,
3. active voice,
4. when choosing the vocabulary, one should strive for similarity to live speech,

5. metaphors, idiomatic collocations, and abstract expressions should be replaced by concrete expressions with literal meaning,
6. foreign words and technical terms should be replaced by native or simpler words or, if this is not possible, an explanation of the technical terms should be provided (e.g., in the form of footnotes),
7. insist on the observance of spelling rules.

2.2. Machine learning approach

What we have described so far is a rule-based approach to the issue of intelligibility. They have the advantage of being easily interpretable by hand-made rules, as opposed to a ML model, where the relationship between input and output is often not obvious (often called as the “black box” phenomenon – Oh et al. 2019).

In literature, approaches that attempt to address the issue of comprehensibility using ML models are scattered. Several studies on language simplification are available from the last decades. Many of the early attempts have focused on specific aspects of the problem. For example, Carroll et. al. (1999) experimented with breaking complex sentences into several separate sentences, Devlin (1999) attempted to replace complex words with simpler lexical items, and Cohn–Lapata (2009) attempted to make sentences more concise while keeping their essential content unchanged. The JusticeBot project (Westermann et al., 2023) focused on analyzing layperson descriptions of an event and detecting possible legal issues that may be relevant to their factual situation. It is a legal decision support tool for landlord-tenant disputes.

Many modern approaches have attempted to simplify texts by translating them within a language (intralingual translation). For example, Zhang–Lapata (2017), Mallinson–Lapata (2019), Nishihara (et al. 2019), and Dong (et al. 2019) have applied encoder-decoder architectures to automatically reformulate texts into more understandable versions. Mallinson (et al. 2020) interpreted the problem as zero-shot multilingual translation and attempted to achieve satisfactory results for resource-poor languages.

What links the above is that all the studies were in fact attempts to produce Easy English from the original texts. In this case, the aim is to produce a more accessible version of the texts for disadvantaged groups, such as language learners or people with dyslexia or aphasia. The initial data set is therefore often a database developed from Simple Wikipedia. The articles here are produced with considerable restrictions, for instance, only the most

common 1,000 English words are recommended to use, which is alone a severe restriction. In the case of PL, the aim is more to make a text more accessible to the ordinary language user. While in the former case we must deal with a lack of linguistic competence, in the latter case the problem is the presence of unnecessary linguistic complexity (which can be particularly pronounced in the case of source texts falling within the legal domain).

Üveges (2022) examined the information materials produced by the Hungarian National Tax and Customs Administration's Working Group on Clarity¹. His analysis included an original version of the texts and a version adapted to be accessible. Thanks to the parallel data, it was possible to produce training data from the sentence-by-sentence versions of the texts. With this data, the author tested simple ML models (SVM and fastText) to classify sentences that were comprehensible and ones that needed to be paraphrased.

What has not been examined in the literature so far, however, is the performance of the LLM-s, the most advanced language technology tools of our time, in relation to PL. There is mainly hypothetical and first-impression research on how, e.g., LLM-generated translation of legalese into simple terms can help the comprehensibility of legal texts and the explainability of legal facts and terms (Chien–Kim 2024: 41).

2.3. Large Language Models

Generative Artificial Intelligence refers to ML algorithms that can learn from, for example, textual content, images, or audio material to be able to create entirely new content on their own. This contrasts with discriminative Artificial Intelligence, which is tasked with learning the decision boundaries that arise when classifying the examples it is given (Jiao et al. 2022: 212).

Generative Artificial Intelligence is named for its ability to generate a wide range of outputs, including text (Ibqal–Qureshi 2022), images (Singh–Raza 2021), sound (Ghose–Prevost 2023), computer code (Dehaerne et al. 2022) and more. LLMs represent a category of generative AI that focuses specifically on text generation.

LLMs that exist today, such as the GPT series under development by OpenAI, the company's latest model GPT-4 (OpenAI 2023) or the Gemini family of models built by Google (Google 2023), are the latest elements of an evolutionary arc. The first outstandingly successful element was the Generative Adversarial Network (GAN) neural network architecture

¹ Nemzeti Adó- és Vámhivatal Közérthetőségi Program.

(Goodfellow et al. 2020). This was in fact a kind of forerunner of today's state-of-the-art solutions (e.g., ChatGPT), although it followed a significantly different architecture than the latter.

Today's generative models, thanks to the robust training phase and the huge amount of data on which the pretraining process takes place, are more suitable than ever for simulating human language use and thus for generating natural language texts. It is no coincidence that with the advent of ChatGPT, technology has rapidly introduced masses of people to Artificial Intelligence, and more specifically to the generative language modeling branch of it.

3. Methodologies and experimental setup

In our experiment, we aimed to investigate some of the linguistic features of PL. The aim was to get an idea of the ability of the LLMs to transform the resulting text along these lines, and the extent to which its legal content changes during similar transformations. Given that PL standards are very extensive, we have limited ourselves here to a few selected linguistic features.

- **Avoiding interjected, backward clauses – preferring short clauses.** The role of the organization of clauses in the text has come to the fore in literature discussing the comprehensibility of legal texts (Charrow–Charrow 1979), as well as in psycholinguistic literature (Pléh–Lukács 2014). It is a general finding that short clauses are easier to interpret than extremely long ones, and that intervening clauses within a sentence (which are clauses of a complex sentence but do not have a syntactic relationship with the rest of the complex sentence) make comprehension difficult in most cases. Among the above, we examined the case of how it is possible to shorten a particularly long clause.
- **Light Verb Constructions (LVC-s).** LVC-s can be broadly defined as a noun-verb structure consisting of an adverbial, an object, or a zero noun and a verb with a usually underspecified meaning, a so-called light verb (Nagy et al. 2020; Vincze 2009). The core of the structure's conceptual meaning is carried by the noun, its grammatical meaning by the verb, and its stylistic value by the phrase altogether, which may differ from the stylistic value of both members. The most common objection to such structures is that the verb does not carry any meaning and therefore makes the text difficult to understand. In the case of English, an example could be *render assistance*, where

render practically has no meaning, and in the case of Hungarian, *megszervezésre kerül* (will be organized), where *kerül* has also no real meaning. In this context, we therefore investigated whether it is possible to automatically detect and replace such structures.

- **Too long sentences.** It is widely accepted that the longer a sentence, the more difficult it is to interpret. This may be partly due, for example, to the limited working memory available when processing language in the brain. In this case, the goal was to divide the original sentence into several parts so that the result remains semantically and normatively equivalent to the original.
- **Use of the word “*illetve*” (*and, or etc.*).** In Hungarian, the word *illetve* (*and/or*) can have a wide variety of functions. It can be used for:
 - a. as a substitution for *or*, both in inclusive (A or B or both) and exclusive (A or B) cases,
 - b. to express a conjunction (in the sense of *and*),
 - c. it can refer to the fact that both *and* and *or* must be used among the elements of the list, and finally,
 - d. it often takes on a clarifying role in the sentence (e.g., *Gondoltam, illetve gondolhattam volna. – I thought or could have thought*).

From all this, it is clear that the use of the conjunction “or” is far from trivial. It is no coincidence that the 61/2009. (XII. 14.) IRM decree on legislative drafting § 7 (3) also states that the conjunction “*illetve*” can only be used in the draft legislation if other more clear language formulations are inapplicable.

In each case, the Language Model was to transform the resulting text to consider a particular aspect. We then manually evaluated :

- whether the conversion met the requirements of the prompt, and
- in the case of the converted text, whether the normative content carried by the original text was changed or violated.

Of course, the four qualities listed above do not necessarily occur in isolation in a single passage or sentence. For this reason, there are cases where more than one of the phenomena under examination occurs in a single example sentence. In such cases, we have also tried to cover these in more detail.

The subject of our investigation was Act CXXII of 2013 on Transactions in Agricultural and Forestry Land (hereinafter: Land Transaction Act). This

law is characterized by the fact that it describes legally complex facts. It is also true that the text is extremely difficult to read, with numerous sentences spanning several paragraphs, lists of many words and a sentence structure that is difficult to understand at first sight. English translations of the relevant parts are provided in [brackets], as well as in the case of the used prompts.

A prompt is an instruction typically used to instruct Language Models trained on question-answer sequences (“optimized as a chatbot”). The most vital role of a prompt is to contextualize the Language Model (e.g., to assign roles to the style of the expected response) and, of course, to provide the most adequate description of the expected operation. Prompt engineering is the use of techniques (based on practical experience) to assess the capabilities and limitations of LLMs and to tailor their operation to a specific task (URL5).

For our purposes, we have tried to use the most concise prompts possible. We have already examined that the GPT-4 model has the basic information about PL (URL7). Therefore, we have now focused on testing the ability of the model to transform the given text fragments according to given criteria. The extent to which the normative content changes in the process was also an important factor.

The following minimal prompt was used for each task:

- (i) *Jogász vagy, akinek az a feladata, hogy jogszabályokat közérthetőre fogalmazzon. Fogalmazd át az alábbi szöveget a Plain Language elveinek megfelelően! Tekintettel arra, hogy egy jogi szövegről van szó, annak normatív, azaz jogi tartalma semmiképpen sem változhat meg az átfogalmazás során. A legfontosabb szempont, amelyre figyelemmel kell lenned, vagy, a következő kell, hogy legyen:*

[You are a lawyer whose job is to produce transcripts of laws that are easier to understand. Paraphrase the following text according to Plain Language principles. Given that this is a legal text, the normative, i.e., legal, content must not change during the rewording. The key point to bear in mind during your work is: ...]

The end of each prompt was then completed with a short, specific task description. This was responsible for defining the specific problem (from the above four) to be solved for the model.

4. Results

In our experiment, we first investigated the extent to which ChatGPT can simplify a sentence by breaking it up into several sentences, or by shortening

its constituent clauses. To illustrate this, we have chosen 45§ (1) from the Land Transaction Act, the full text of which is a single sentence. The passage is particularly interesting, since in (c) there is a multiple compound cumulative adjective structure. The original text was:

- (ii) “45. § (1) Az erdőnek minősülő föld haszonbérbe adása esetén előhaszonbérleti jog illeti meg a volt haszonbérelő olyan földművest, illetve mezőgazdasági termelőszövetkezetet:
- a) aki helyben lakó szomszédnak, illetve amely helybeli illetőségű szomszédnak minősül,
 - b) aki helyben lakónak minősül, illetve amely helybeli illetőségűnek minősül, vagy
 - c) akinek az életvitelszerű lakáshasználata helye, illetve akinek vagy amelynek a mezőgazdasági üzemközpontja legalább 3 éve olyan településen van, **amelynek közigazgatási határa a haszonbérlet tárgyát képező föld fekvése szerinti település közigazgatási határától közúton vagy közforgalom elől el nem zárt magánúton legfeljebb 20 km távolságra van.**”

[“(1) As regards the leasing of forest land, the previous lessee (farmer or agricultural producer organization) – shall have the right of first refusal:

- a) if qualifies as a local neighbor or locally registered neighbor;
 - b) if qualifies as a local resident or locally registered entity, or
 - c) if has a place of habitual residence or has his or its center of agricultural operations for at least three years in a municipality from **whose administrative boundaries the land to which the leasehold pertains is located within a 20-kilometer radius via public road or publicly accessible private road.**”]
- (emphasis added by the authors)

It is noteworthy that the text also contains the conjunction *illetve* (which, by the way, appears about 116 times in the whole text of the Act).

In this case, the prompt indicated in (i) was completed as follows:

- (iii) *Az átfogalmazott szöveg nem tartalmazhat túl hosszú, tehát nehezen érthető mondatokat.*

[*The paraphrased text should not contain clauses that are too long, so difficult to understand.*]

We have tried to give the minimum possible instructions. This was done to better simulate the autonomous operation of the language model and to

better illustrate a case where the average user, not familiar with prompt engineering, would create instructions for the model. In our opinion, this is the most realistic setup from the point of view of the average user. The result was as follows:

(iv) “45. § (1) Ha egy erdő területét kiadják hasznobérbe, a korábbi hasznobérlő, aki földműves vagy mezőgazdasági termelőszervezet, előhasznobérleti jogot élvez. Ez a jog a következő esetekben áll fenn:

a) A korábbi hasznobérlő helyi lakosként számít szomszédnak, vagy a korábbi hasznobérlő olyan helyi mezőgazdasági termelőszervezet, amely szomszédnak minősül.

b) A korábbi hasznobérlő helyi lakos vagy a korábbi hasznobérlő helyi mezőgazdasági termelőszervezet.

c) A korábbi hasznobérlő vagy a mezőgazdasági termelőszervezet életvitelszerűen használt lakása vagy az üzemközpontja legalább három éve olyan településen található, amelynek közigazgatási határa legfeljebb 20 kilométerre van azon település közigazgatási határától, **ahol** a bérbe adott föld található.”

[“Article 45 (1) If a forest area is leased out, the former lessee, who is a farmer or a farmers’ organization, shall have the right of first lease. This right exists in the following cases:

a) the former tenant is a local resident who is a neighbor, or the former tenant is a local agricultural producer organization which is a neighbor.

b) The former tenant is a local resident, or the former tenant is a local agricultural producer organization.

c) the former tenant or the agricultural production organization has had its permanent residence or its centre of operations for at least three years in a municipality whose administrative boundary is situated at a distance of 20 kilometers or less from the administrative boundary of the municipality **where** the leased land is situated.”]

(**emphasis** added by the authors)

The previous single sentence was broken down into 5 separate units by the model. The breakdown was clearly the individual cases listed in the legal code in connection with the facts given. It is also clear that the model replaces many structures that originally contained one or more adverbs and adjectives with the noun head of the given constituent (cf. *erdőnek minősülő föld* [land classified as a forest] → *erdő* [forest]). The list of possible cases is

preceded by a separate introductory clause (*This right exists in the following cases:*). The last clause, which contained most of the cumulative adverbs and adjectives, has also changed significantly. The insertion of the pronoun *ahol* (*where*), for example, makes the structure much easier to understand thanks to the introduction of the independent clause.

When working on improving the comprehensibility of legal texts, we must not only consider how much more understandable the text has become but also thoroughly examine whether the normative content of the legal text has undergone significant changes. This point is particularly interesting in the last clause of the text mentioned above, where the most significant modification occurred after simplification. It is noteworthy that although the normative content regarding how far a non-local resident or agricultural organization can be from a residence or operational center remained the same, the precise measuring method was omitted in the simplified version. This omission can lead to interpretative problems in legal practice.

Furthermore, the original text clearly stipulates the conditional nature of the right, stating that specific criteria must be met, while the simplified version might suggest that this right automatically and inherently belongs to the former lessee. Indeed, only the second sentence hints at these conditions. Additionally, the original text clearly shows that meeting any listed conditions is sufficient. In contrast, the simplified version does not clarify whether the right applies if all conditions are met or if meeting just one condition is sufficient.

However, a positive aspect is that the simplified text clarifies that only farmers can qualify as neighbors or residents, and only agricultural producer organizations can be locally registered neighbors or entities. It significantly eases the understanding of the texts for laypersons seeking legal information, helping them grasp which conditions apply to their situation.

16§(4) of the Act has been selected regarding LVCs. The English translation is of particular interest here because, while it is a good representation of the meaning of the text, it also serves as an example of how LVCs cannot be translated in many cases while retaining their stylistic value.

- (v) *“16. § (4) A részaránytulajdon megszerzése esetében az (1) bekezdésben foglalt földszerzési maximumot azzal az eltéréssel kell alkalmazni, hogy a szerző fél tulajdonában és haszonélvezetében álló földterület hektárban kifejezett térmértéke mennyiségének hússzorosa, valamint a már tulajdonában álló és **megszerzésre kerülő** részaránytulajdon összesített aranykorona értéke mennyiségének együttes összege legfeljebb 6000 lehet.”*

*[(4) As regards the acquisition of an ownership share, the land acquisition limit shall apply with the derogation that the gold crown value of twenty times the size of land areas expressed in hectares owned or used by the acquiring party under usufructuary right, and that of the ownership share such party already has or is **about to acquire** may not exceed 6,000 hectares combined.]*

(**emphasis** added by the authors)

The prompt previously defined in (i) has now been supplemented by the following:

(vi) *A szövegben minden funkcióigét (Light Verb Construction) helyettesítened kell egy egyszerű cselekvő igével, pl.: 'intézkedést foganatosít' helyett írd azt, hogy 'intézkedik'.*

[You must replace every function verb (Light Verb Construction) in the text with a simple action verb, e.g., instead of 'intézkedést foganatosít', write 'intézkedik'.]

Thus, the following result was obtained:

(vii) *Amikor valaki részaránytulajdont szerez, akkor a földszerzési korlátozásokat kicsit másképp kell értelmezni. Ez azt jelenti, hogy a tulajdonos birtokában lévő és használatában álló földterület nagyságát hektárban megszorozzuk hússzal. Emellett hozzáadjuk a tulajdonos már meglévő és most szerzett részaránytulajdonainak összes aranykorona értékét. Ezen két szám összege nem haladhatja meg a 6000-et.*

[When one acquires fractional ownership, the land acquisition restrictions should be interpreted slightly differently. This means that the amount of land in hectares owned and used by the owner is multiplied by twenty. In addition, we add the total value of the owner's existing and newly acquired fractional holdings of gold crowns. The sum of these two figures should not exceed 6000.]

The result is interesting from the point of view that the text as a whole described a computational method, which the model returned in separate sentences, broken down into steps. In this way, the LVC did indeed disappear, but it is not clear whether this was due to following a specific instruction or whether it was just a consequence of the general transformation.

² Takes action.

To clarify this, the model is given a separate prompt with the following instruction:

- (viii) *Hogyan helyettesítenéd a “megszerzésre kerül” funkciói­gés szerkezetet cselekvő szerkezettel?*
[How would you replace the “megszerzésre kerül” Light Verb Construction with active voice?]

Since the new prompt was submitted in the same conversation, the model not only gave the proposed substitution, but also “corrected” it in the previous text.

- (ix) *A “megszerzésre kerül” funkciói­gés szerkezetet helyettesítheted az “elsajátít” cselekvő igével. Ezáltal a mondat a következőképpen módosulhat:*

“Ez azt jelenti, hogy a tulajdonos birtokában lévő és használatában álló földterület nagyságát hektárban megszorozzuk hússzal. Emellett hozzáadjuk a tulajdonos már meglévő és most elsajátított részaránytulajdonainak összes aranykorona értékét. Ezen két szám összege nem haladhatja meg a 6000-et.”

[You can replace the function verb structure “megszerzésre kerül” with the action verb “elsajátít”. This way the sentence can be modified as follows:

“This means that the amount of land in hectares owned and used by the owner is multiplied by twenty. In addition, we add the total value of the owner’s existing and newly acquired share-ownership in the land. The sum of these two figures shall not exceed 6000.”]

This highlights the fact that the model actually translates all instructions into English in the background, and in the process some meanings may be confused or changed. Indeed, “elsajátít” (acquire – learn or develop a skill, habit, or quality) and “megszerez” (acquire – obtain an asset or object) can be translated into a common English verb, but in the concrete text the two take on vastly different meanings. In addition, the preceding sentence in the simplified text also changes the terms from ‘property and beneficiary ownership’ in the original text to ‘possession and use’ in Hungarian. These terms may carry different meanings in Hungarian legal terminology.

So, on the one hand, we can conclude that the original conversion was not intended to reformulate the LVC as prompted, and on the other hand, we can see the dangers of the automatic translation, especially for the legal domain.

To test the resolution of eviscerally long sentences, we have chosen Act 45§ (2), which also consists of a single sentence.

- (x) 45§ (2) *Ha az erdőnek minősülő föld közös tulajdonban áll, a tulajdonostárs tulajdoni hányada egészének vagy egy részének megfelelő terület harmadik személy javára történő haszonbérbe adása esetén az (1) bekezdésben meghatározott előhaszonbérletre jogosultakat követően előhaszonbérleti jog illeti meg a földműves tulajdonostársat.*

[45§ (2) If the land which constitutes a forest is in common ownership, in the event of a lease of all or part of the area corresponding to the ownership share of the co-owner to a third party, the co-owner of the land shall have a right of first refusal after the right of first refusal as defined in paragraph (1).]

In this case, the simple instruction added to prompt (i) was:

- (xi) *A következő mondatot bontsd fel több, egyszerűbb mondatra úgy, hogy a szöveg értelme változatlan maradjon!*
[Break the following sentence into several, simpler sentences, while keeping the meaning of the text unchanged.]

The result is illustrated in (xii):

- (xii) *Amikor egy erdőnek minősülő föld közös tulajdonban van, és egyik tulajdonostárs a tulajdoni hányadának egészét vagy egy részét harmadik félnek adja haszonbérbe, akkor először az (1) bekezdésben meghatározott előhaszonbérletre jogosultak jönnek. Ezután az előhaszonbérleti jog a földműves tulajdonostársat illeti meg.*
[When land which is a forest is jointly owned and one of the owners leases all or part of his share of the ownership to a third party, the first to be entitled to the advance lease as defined in paragraph 1 shall be. Thereafter, the right of prior tenancy shall be vested in the co-owner who is a farmer.]

The interesting thing about the situation is that the sentence describes a single conditional structure, its complexity is given by the multitude of expressions specifying the meaning.

For “illetve” (which can mean either ‘and’ and ‘or’ in Hungarian, depending on the context), we have chosen paragraph 35§ (5) of the Act, which contains the term twice:

- (xiii) 35§ (5) *Ha a mezőgazdasági igazgatási szerv a tulajdonszerzést jóváhagyja, a döntése meghozatalával egyidejűleg a 30. § (1) és (2) bekezdésében meghatározottak szerint az árverési jegyzőkönyvet*

*záradékolja, majd megküldi a végrehajtónak, **illetve** a felszámolónak. A mezőgazdasági igazgatási szerv az árverési jegyzőkönyv szerinti teljes vételárat átutalja a végrehajtónak, **illetve** a felszámolónak.*

*[If the agricultural administration body approves the acquisition, it shall at the same time endorse the auction report as provided for in Subsections (1) and (2) of Section 30, and shall send it to the bailiff **or** the liquidator, as appropriate. The agricultural administration body shall transfer the purchase price shown in the auction report in full to the bailiff **or** the liquidator.]*

(emphasis added by the authors)

In the English translation, the correct logical conjunction to insert in both cases would be “or”. In the last case, the model has the following prompt addition:

(xiv) A szövegben szereplő “illetve” kifejezés zavaró lehet, mivel “megengedő vagy”, “kizáró vagy”, illetve “és” értelmezése is lehet. Amennyiben indokolt, cseréld az előfordulásait a megfelelő kötőszóval.

[The term “illetve” in the text can be confusing, as it can be interpreted as “inclusive disjunction”, “exclusive disjunction” or “conjunction”. If appropriate, replace occurrences with the appropriate conjunction.]

The language model then made the following changes to the text:

(xv) 35§ (5) Amennyiben a mezőgazdasági igazgatási szerv jóváhagyja tulajdonszerzést, adöntésmeghozatalával egyidejűleg záradékolja az árverési jegyzőkönyvet a 30. § (1) és (2) bekezdéseiben meghatározott módon, majd elküldi a végrehajtónak és a felszámolónak. A mezőgazdasági igazgatási szerv az árverési jegyzőkönyv szerinti teljes vételárat átutalja a végrehajtónak és a felszámolónak.

*[35§ (5) If the agricultural administrative body approves the acquisition of property, it shall, at the same time as it takes its decision, endorse the auction report in the manner specified in paragraphs (1) and (2) of Article 30 and send it to the executor **and** the liquidator. The agricultural administration body shall transfer the total purchase price according to the auction report to the bailiff **and** the liquidator.]*

(emphasis added by the authors)

In this case, the model followed the instruction more accurately in advance, i.e., the PL transcription given as a larger context did not “mask” the more specific task of replacing the indicated expression. However, according to the normative legal content, the solution of the GPT model needs to be corrected because, in the context of the original Hungarian text, ‘illetve’ carries the meaning of ‘or,’ indicating that it is either a liquidation or enforcement. Accordingly, either a liquidator or a bailiff is involved in the proceedings.

5. Conclusion

The GPT4 model performed somewhat mixed in the individual tasks. The most interesting phenomenon was the one we experienced when trying to remove LVCs. In doing so, the original meanings were mixed up during the automatic machine translation of the input. As a result, the transformed text became meaningless. Presumably, therefore, the problem was not the inference capabilities of the model, nevertheless, this is a potential source of error to be kept in mind when working with non-English language content.

The results of the model are promising in terms of shortening clauses. For example, the introduction of new conjunctions and relevant subordinate clauses makes the paraphrased versions much easier to understand.

It was common experience that, in the case of the prompts constructed to transform certain linguistic features, the model did not aim for specific transformations. Rather, the results obtained reflected a general reformulation from a PL perspective. This is not necessarily a problem, but a phenomenon that is certainly worth bearing in mind.

The linguistic features of the resulting transcripts were largely in line with the requested conditions, but the legal content was changed in almost all cases during the reformulation. This leads to the conclusion that the language model in its current state is in no way suitable for fully automatic paraphrasing. Rather, it is a productivity tool that can be used to support the work of the “translator” and reduce the time required.

On the one hand, the results provide an excellent illustration of the potential uses of LLMs to make work more efficient. On the other hand, they also make it clear that reformulation from a PL perspective, even with today’s most modern tools, is a task that does not lack human creativity and expertise, and where all the automation can only be directed towards supporting human experts’ work.

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