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DOI: 10.19090/gff.v48i3.2436
Original research paper

EXPLORING THE ENGLISH VOCABULARY, INCLUDING NEOLOGISMS, WITH RESOURCES OF AI CHATBOTS USED AS MULTITALENTED SUPERDICTIONARIES

This paper deals with theoretical and, especially, practical aspects of exploring the English vocabulary, including neologisms, with the aid of resources made available by AI chatbots, viewed and used as multitasking superdictionaries. The exposition is divided into four parts, thus: Section 1 offers some general, scene-setting remarks; Section 2 brings a discussion of the whys, whats and hows of exploring properties of, and relations between, individual English words by exploiting AI chatbots; Section 3 brings a discussion of the theory and practice of exploring English neologisms by exploiting AI chatbots; and Section 4 provides an overview of the applied aspects of other important areas of exploration of the English vocabulary, including neologisms, with AI chatbots.

Key words: vocabulary, neologisms, the English language, exploration, exploitation, AI chatbots, theory, practice

1. OPENING REMARKS

Towards the end of the year 2022, a new, ingenious invention was introduced to the world, with unprecedented media attention and with reception ranging from euphoria to scepticism to distrust. The ingenious invention was called ChatGPT, was accessible through the internet, was able to communicate with its users in written and spoken form, was trained on a vast amount of online textual material and was made available to the general public for testing purposes. After logging in and signing up, users were invited in the ChatGPT's welcoming message on-screen to ask it anything they want, in ordinary English or any other of the many supported languages. Some time into February 2023, the author of this paper ventured at last to log in and sign up, and to embark on the long journey of asking ChatGPT anything he wanted, but he immediately chose, not surprisingly, to ask it all manner of questions about

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vocabulary and linguistics, phrased in, and related to, English, Serbian, French, German, Hungarian and some other languages.

This paper is the result of several months-long experimentation with ChatGPT and its incredibly powerful resources. It represents, in effect, a linguist's concise guide to exploiting ChatGPT resources for exploring the English vocabulary, including neologisms, where 'a linguist's' is to be understood both as 'written by a linguist' and as 'written for a (generic) linguist'. Without wishing to go into the technology behind ChatGPT and other similar AI chatbots, or the accompanying abstruse terminology, the purpose of this non-IT-minded user-oriented guide is, expressed through slightly different imagery, to try and explain how to drive a car reasonably well and not how component parts of a car's engine operate. For this very reason, the focus is here placed on exploring the English vocabulary, with special reference to neologisms.

The aims of the paper are threefold: firstly, to present the areas and aspects of the English vocabulary, including neologisms, that can be beneficially explored with the aid of ChatGPT and other similar AI chatbots launched recently; secondly, to recount the author's own personal hands-on experience gained while purposefully conversing and interacting with ChatGPT on matters lexical and linguistic; and thirdly, to motivate readers, especially university students and fellow teachers and researchers, to befriend, without any fear, ChatGPT and other similar AI chatbots, and to reap the benefits from utilizing their vast resources in their own work (and leisure).

The exposition that follows will be organized into three sections: Section 2 will consider the whys, whats and hows of exploring English words using resources of AI chatbots; Section 3 will examine the theory and practice of exploring English neologisms using resources of AI chatbots; and Section 4 will touch on the applied aspects of other important areas of the exploration of the English vocabulary, including neologisms, with the aid of resources of AI chatbots.

2. EXPLORING THE ENGLISH VOCABULARY WITH RESOURCES OF AI CHATBOTS

This section deals with ways in which explorers of the English vocabulary can benefit from resources offered by AI chatbots. The discussion is divided into four parts: a portrayal of AI chatbots as multitasking superdictionaries (2.1), an overview of lexical information offered by AI chatbots, including properties of individual words and relations between individual words (2.2), an overview of pointers for

efficient prompting of AI chatbots, including theoretical and practical aspects (2.3), and a proposal for a practical interactive exercise in AI chatbot prompting (2.4).

2.1. The whys: AI chatbots used as multitalented superdictionaries

AI chatbots are best conceived and construed as highly capable search engines, like Google, Bing, DuckDuckGo and others, but with at least three fundamental differences:

- firstly, instead of expecting textual input consisting of a few key words or a fragmentary or full sentence, AI chatbots can receive input in ordinary, everyday, real-life language, written or spoken, English or any other of the many supported ones, very much like the language used in any other form of modern electronic written and spoken communication, whose input can consist of just a few words to several sentences of various length, structure and complexity,
- secondly, instead of returning clickable https addresses of, and hyperlinks to, websites admittedly containing answers to be ferreted out by the user, AI chatbots produce a textual or, in some cases, graphic, visual or vocal, reaction, again in ordinary, everyday, real-life language, typically quite helpful and polite, at times even humble and apologetic, in the user's language of choice, offering answers of various quantity and quality to the questions or problems put before them, and
- thirdly, instead of merely providing screenfuls of addresses and hyperlinks fulfilling criteria input by the user, AI chatbots are open to interactivity, by being able to engage in two-way conversations, or chats, with users, by being able to learn from users (for the duration of a given session), and by being able to self-correct when prompted appropriately.

AI chatbots have been trained on an exceptionally large amount of textual material available across and around the internet, and some of them additionally have access to the internet in real time. What AI chatbots actually do is analyse, organize, reorganize, summarize and display on-screen the recast data originally fed into them. It is important to stress that AI chatbots, as they themselves claim when asked, cannot reason, think, feel or have opinions in the way humans do, but they only act in the manner they have been programmed, even though some of their reactions may, on the surface, resemble those of humans. Worthy of note is the fact that, because lacking the ability to reason and think creatively, AI chatbots can in some cases, fortunately not very frequently, hallucinate, as the term goes, i.e. generate perfectly plausibly-

looking but otherwise false or inaccurate information, which may be due to faulty programming and/or training, or to errors in texts fed into them, or to flawed prompting. Therefore, utmost caution should be exercised by users to detect, identify and reject responses that appear out of place and to demand immediate regeneration of a new, this time valid and accurate, response.¹

All things considered, both the pros and cons, AI chatbots should be perceived and treated as extremely sophisticated and knowledgeable computer programs that serve as companions to human users and function as invaluable interactive sources of information or assistance of any kind. In consequence, viewed as such great information-packed agglomerates, AI chatbots should be exploited wisely and carefully in lexical explorations as well.

There are currently many AI chatbots out there, but three are arguably the most widely known and used, and they are listed here in order of their launching:

- ChatGPT, November 2022, accessible at <https://chat.openai.com/>, and as an application for Android and iOS; trained on material rounded off in September 2021; no access to the internet,
- Microsoft Bing Chat (henceforth Bing), February 2023, accessible at <https://www.bing.com/>, and choosing there ‘Chat’, and as part of the Microsoft Edge browser, and as an application for Android and iOS; has access to the internet; provides sources of responses; can generate custom-made images, and
- Google Bard (henceforth Bard), March 2023, accessible at <https://bard.google.com/>; has access to the internet; can provide spoken responses.

In addition to the tremendous trio, one recent AI-powered chatbot / search engine deserves special mention. It is Perplexity AI, accessible at <https://www.perplexity.ai/>, and as an application for Android and iOS; has access to the internet; provides sources of responses. Its uncommon simplicity, speed and efficiency in providing results definitely present a smart replacement for customary search engines and a warmly recommended transition to the world of creative AI chatbot exploitation.

This discussion has no intention, explicit or implicit, to compare the four AI chatbots or to identify their strong and less strong points, because all are equally

¹ For details on AI hallucination, see [https://en.wikipedia.org/wiki/Hallucination_\(artificial_intelligence\)](https://en.wikipedia.org/wiki/Hallucination_(artificial_intelligence)), <https://www.techtarget.com/whatis/definition/AI-hallucination>, <https://zapier.com/blog/ai-hallucinations/>, or ask an AI chatbot for an elaboration.

capable of carrying out the tasks assigned to them and because they differ only in details just mentioned. Since the proof of the pudding is in the eating, readers should try each product and decide for themselves which AI chatbot or chatbots they will use or, perhaps, not use. And those readers interested in the technicalities and terminologies behind the workings of these and other AI chatbots, as well as in comparative reviews, are invited to use their favourite search engines or, better still, to ask directly one of the AI chatbots for assistance. All will surely be more than happy to oblige.

From the point of view of lexical exploration, AI chatbots effectively incorporate and place at the user's disposal unified and combined resources with the functionality of general-purpose, specialized and terminological dictionaries, monolingual, bilingual and multilingual, as well as thesauruses, translators, style guides, gazetteers, corpora, encyclopedias, almanacs, atlases and other kinds of reference works. Having realized the massive scope of their joint lexical power, the author devised a descriptive designation capturing the functionality of AI chatbots in this particular area of knowledge – it is **MULTITALENTED SUPERDICTIONARY**, where 'multitalented' puts together their multiple talents and abilities to, among other things, analyse, interpret, define, exemplify, join, group, differentiate, translate, compare and contrast words in terms of their forms, functions, meanings and uses, and 'superdictionary' is an umbrella term for the unity of all the reference works just mentioned.

In one of our academic exchanges of ideas, ChatbotGPT was confronted with this distinctive name, 'superdictionary', alongside other prospective candidates that included 'hyperdictionary', 'hypersuperdictionary', 'superduperdictionary' and 'megadictionary', some obviously jocular. We finally agreed on 'superdictionary' as the most appropriate term for the purpose, even though ChatGPT, when asked, later came up with several of its own self-naming creations-cum-glosses, shown in the screenshot in Illustration 1:



I can help you understand what each term emphasizes and how it relates to my abilities, but ultimately, the decision of which term to use would depend on your specific needs and preferences. Here is a brief explanation of the terms:

1. Superdictionary - emphasizes the vastness of the language model's lexical knowledge and abilities.
2. Hyperdictionary - similar to superdictionary, emphasizes the language model's exceptional capacity for understanding and processing language.
3. Lexical behemoth - emphasizes the language model's sheer size and scope, suggesting that it is a dominant force in the realm of language.
4. Linguistic powerhouse - emphasizes the language model's ability to perform a wide range of language-related tasks with great skill and efficiency.
5. Verbal omniscience - emphasizes the language model's ability to know and understand everything related to language.
6. Semantic savant - emphasizes the language model's exceptional ability to understand and manipulate meaning.
7. Language oracle - emphasizes the language model's ability to provide guidance or answers related to language.
8. Lexicographic titan - emphasizes the language model's strength and expertise in the field of lexicography.
9. Vocabulary virtuoso - emphasizes the language model's mastery and artistry in the use and understanding of vocabulary.
10. Linguistic juggernaut - emphasizes the language model's unstoppable and overwhelming power in the realm of language.

Illustration 1: glossed self-designations proposed by ChatGPT to capture its own vast lexical resources

To conclude this introduction, let it be said that all descriptions, exemplifications and screenshots in the entire discussion, if not indicated otherwise, are based on, and result from, research done with the aid of ChatGPT.

2.2. *The whats: information on words offered by AI chatbots*

There is an unimaginably great wealth of information on words, including neologisms, that is offered by AI chatbots and waiting to be elicited and displayed via cleverly phrased prompts. This information is available for four types of lexical units:

- words, including general vocabulary, neologisms, culture-specific words and technical terms,

- affixes, including prefixes and suffixes (e.g. *un-*, *-ish*), and combining forms, including initial combining forms and final combining forms (*morpho-*, *-graphy*),
- idioms, including phrasal nouns (e.g. *head of state*), phrasal verbs (*put up with*), fixed binomials (*inch by inch*), similes (*as cool as a cucumber*), discourse formulas (*That's right!*), catchphrases (*Diamonds are a girl's best friend*) and traditional sayings (*Every cloud has a silver lining*), and
- proper names, including personal (e.g. *Crawford*), geographical (*Kirkcudbright*) and institutional (*London School of Economics*).

All these types of lexical units will henceforth be referred to, for convenience, by the cover term 'word', except when a particular type of unit will be meant.

The information thus available and open to searching, finding, eliciting and displaying will be roughly divided into two groups: the first group comprises information on a smaller scale and involves the level of individual words, i.e. diverse properties of words that contribute to the building of what will be called here micro-lexical summaries. And the second group comprises information on a larger scale and involves the level of relations, i.e. diverse relations between individual words that contribute to the building of macro-lexical summaries.

Each of the two lexical summaries will now be dealt with in some detail. The meaning of the terms and concepts that will appear below is presupposed and will be neither discussed, nor explained, nor exemplified separately (for their clarification, see Bauer, 1983, 2004; Bauer and Huddleston, 2002; Cruse, 1986, 2006, 2010; Crystal, 2008; Krzeszowski, 1990; Lipka, 2002; McArthur, 1992; Mey, 2009; Murphy, 2003; Prčić, 2016, 2019, 2023; Quirk, Greenbaum, Leech and Svartvik, 1985).

2.2.1. *Properties of individual words: building micro-lexical summaries*

MICRO-LEXICAL SUMMARIES are composed of information concerning form-related and content-related properties of individual words.

Within form-related properties, several notable features can be looked up and into. They belong to the fields of graphology with orthography, phonology with phonetics, morphosyntax and etymology. Each of these features, together with the points they comprise, will now be itemized.

(1) In the field of graphology with orthography, where the focus is on the spelling of words, it is the following points:

- providing the standard spelling of a given word,

- providing variants of standard spelling of a given word,
- providing unacceptable spellings of a given word,
- providing frequency of use of a given word (all frequency-related tasks are best handled by Bard and Bing with GPT-4 on).

(2) In the field of phonology with phonetics, where the focus is on the pronunciation of words, it is the following points:

- providing the standard pronunciation of a given word in IPA and other notations, in Received Pronunciation (RP) and/or General American (GenAm) and/or other regional accents,
- providing variants of standard pronunciation of a given word,
- providing unacceptable pronunciations of a given word.

(3) In the field of morphosyntax, where the focus is on the grammar of words, it is the following points:

- providing word class, i.e. part of speech, of a given word,
- providing syntactic function of a given word in a given phrase or sentence,
- providing morphological forms of nouns, verbs, adjectives and adverbs,
- providing variant morphological forms of nouns, verbs, adjectives and adverbs,
- providing unacceptable morphological forms of nouns, verbs, adjectives and adverbs,
- in the opposite direction, i.e. onomasiologically, creating new words that match the definition provided.

(4) In the field of etymology, where the focus is on the origin and development of words, it is the following points:

- providing year or decade of the earliest recorded occurrence of a given word, affix or combining form,
- providing language of origin and, in cases of interlingual borrowing, mediating language of a given word, affix or combining form,
- providing morphological forms of a given word, affix or combining form attested during its development,
- providing cognates in other languages of a given word, affix or combining form.

Within content-related properties, several notable features can be looked up and into. They belong to lexical semantics with lexical pragmatics, lexical stylistics and general pragmatics. Each of these features, together with the points they comprise, will now be itemized.

(5) In the field of lexical semantics with lexical pragmatics, where the focus is on the descriptive meaning of words, it is the following points:

- providing definitions of all meanings of a given word, taking into account polysemy and homonymy, with the possibility of including distinctive signposts in front of each definition,
- providing definition of the meaning of a given word that occurs in a given sentential context,
- providing definitions tailored to various target group of users and/or to various purposes, in two general ways:
 - firstly, it is qualitative tailoring, by specifying the group, like 15-year-old pupils, or the general public, or professionals, or by specifying the wording itself, like using simplified language, or producing a full-blown encyclopedic entry, or addressing directly the user with the pronoun *you*, and/or
 - secondly, it is quantitative tailoring, by specifying the number of sentences and words in a definition, like within a single sentence, or with up to 35 words, or in no fewer than 15 words, or in between 10 and 35 words, as shown for the three wordings of the definition of the word *supercell storm*, in the screenshot in Illustration 2:

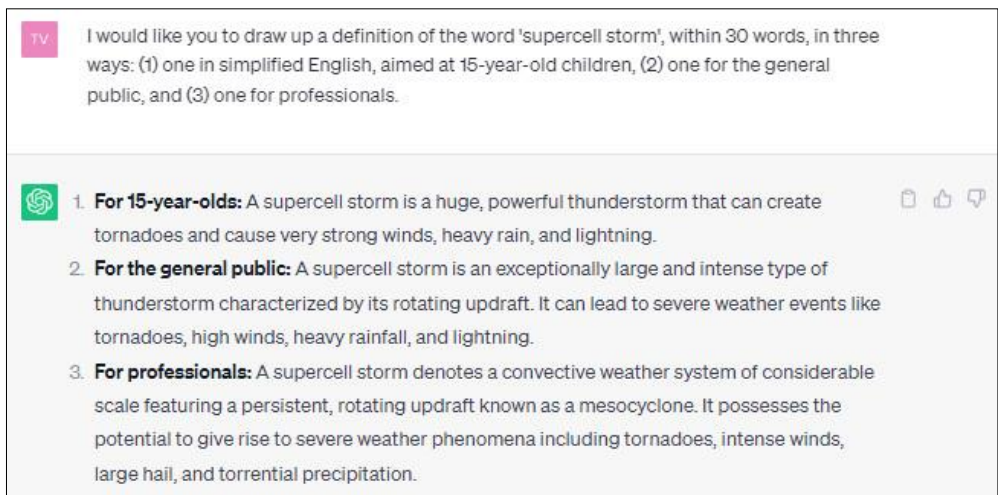


Illustration 2: three tailored wordings of the definition of the word *supercell storm* (ChatGPT)

- in the opposite direction, i.e. onomasiologically, providing an existing word that matches the definition provided.

(6) In the field of lexical stylistics, where the focus is on the associative meaning of words, it is the following points:

- providing and/or indicating stylistically marked meanings of a given word, especially in terms of dialect, like British, American and others, and of chronolect, like obsolescent, obsolete and archaic,
- providing and/or indicating registrally marked meanings of a given word, especially in terms of formality, like formal, neutral, informal and slang, and
- providing and/or indicating attitudinally marked meanings of a given word, especially in terms of expressivity, like derogatory and offensive, on the one hand, and euphemistic, on the other,
- all these associative meanings can be provided within definitions of words, as at (5) above, or as separate usage notes.

(7) In the field of general pragmatics, where the focus is on the actual use of words and/or the content they express, it is the following points:

- providing textual illustration, with concrete exemplification of use of a given word in one or multiple phrases, clauses or sentences of various syntactic patterns,
- providing visual illustration, with pictorial exemplification of the content expressed by a given word (available with Bing and Bard),
- providing generated visual illustration, with induced pictorial exemplification of the content expressed by a given word, created in real time from the description input by the user (available only with Bing), as shown for the images of a *puffin* and a *supercell storm* in Illustration 3, generated from the prompts ‘I would like you to create an image of a puffin on a rock near the sea’ and ‘I would like you to create an image of a supercell storm in action in a town’, respectively:



Illustration 3: AI-generated images of a *puffin* (left) and a *supercell storm* (right) (made by Bing Image Creator, powered by DALL-E)

2.2.2. Relations between individual words: building macro-lexical summaries

MACRO-LEXICAL SUMMARIES are composed of information concerning relations between individual words at paradigmatic, syntagmatic, word-formational and interlingual levels. Several notable relations can be looked into. They centre around comparability of form and/or content. Each of these relations, together with the ways in which they are realized, will now be itemized.

(8) At the paradigmatic level, it is sense relations between given senses of given words, realized in the following ways:

- synonymy: providing a list of synonyms for the given sense of a given word, with the possibility of including differential definitions and examples, as shown for the differentiated synonyms of the adjective *pretty*, in the screenshot in Illustration 4:

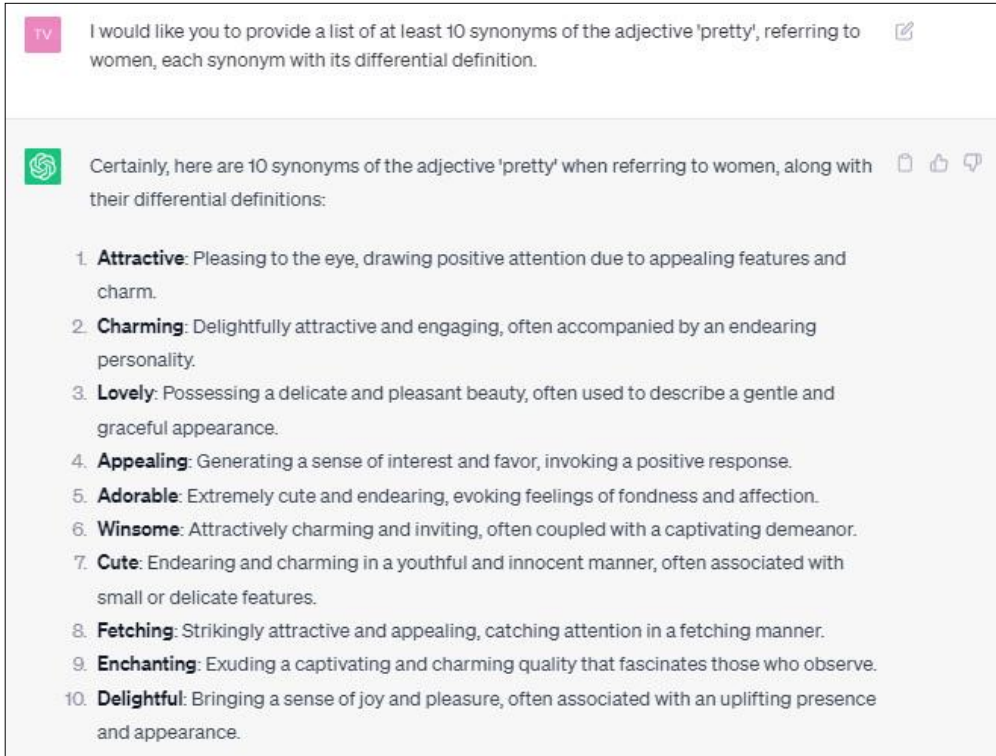


Illustration 4: differentiated synonyms of the adjective *pretty* (ChatGPT)

- in the opposite direction, i.e. onomasiologically: providing a list of synonyms available for expressing a given general sense, also with the possibility of including differential definitions and examples,
- antonymy: providing the complementing member of a pair of antonyms for the given sense of a given word, with the possibility of including definitions and examples,
- hyponymy: providing a list of hyponyms, or cohyponyms, or troponyms, for the given sense of a given superordinate, or, reversely, providing a superordinate for a given hyponym, or troponym, both with the possibility of including differential definitions and examples,
- meronymy: providing a list of meronyms for the given sense of a given holonym, or, reversely, providing a holonym for a given meronym, both with the possibility of including definitions and examples,
- all these sense relations can be provided within definitions of words, as at (5) above, or as independent lists.

(9) Also at the paradigmatic level, it is relatedness of words in form and/or content, realized in the following ways:

- contrasting and commenting on the usability of variant spellings, including unacceptable spellings, of a given word,
- contrasting and commenting on the usability of variant pronunciations, including unacceptable pronunciations, of a given word,
- contrasting and commenting on the usability of variant morphological forms, including unacceptable forms, of a given word in a given function,
- contrasting and commenting on the usability of homonymous, homographous and homophonous sets of words,
- contrasting and commenting on the usability of various sets of synonyms of a given sense of a given basic word,
- contrasting and commenting on the usability of literal vs. transferred metaphorical or metonymical senses of a given word,
- providing frequency of occurrence of spelling variants, including unacceptable spellings, of a given word, as shown for the variants of *road map*, in the screenshot in Illustration 5, obtained from the prompt ‘I would like you to provide the frequency of occurrence, in numbers and percentages, of the spelling variants *road map*, *road-map* and *roadmap*’:

Sure, here is the frequency of occurrence, in numbers and percentages, of the spelling variants of "road map" in Google Books Ngrams:

Spelling	Tokens	Percentage
road map	1,148,100	78.5%
road-map	272,600	16.5%
roadmap	79,700	5.0%

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As you can see, the spelling "road map" is still the most common, with 1,148,100 tokens, or 78.5% of the total. However, the hyphenated form "road-map" is gaining in popularity, with 272,600 tokens, or 16.5% of the total. The unhyphenated form "roadmap" is the least common, with 79,700 tokens, or 5.0% of the total.

Illustration 5: frequency of occurrence of three spelling variants of *road map* (Bard)

- providing frequency of occurrence of morphological variants, including unacceptable forms, of a given word,

- providing frequency of occurrence of variant prefixations and/or suffixations with the same base word.

(10) At the syntagmatic level, it is habitual cooccurrences of words, realized in the following ways:

- providing primary or secondary collocates of collocations, occurring to the left or to the right, of a given word in a given sense, as shown for the adjective collocates of the noun *pain*, in the screenshot in Illustration 6:

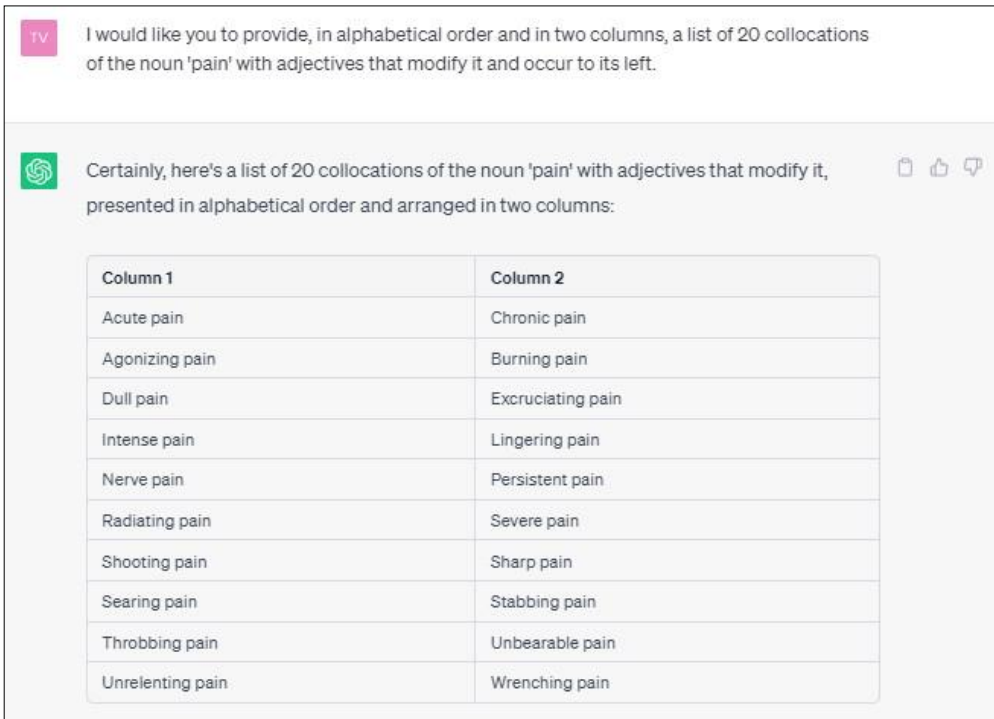


Illustration 6: adjective collocates of the noun *pain* (ChatGPT)

- providing the function word, typically a preposition, of colligations, occurring to the right of a given lexical word in a given sense,
- providing frequency of occurrence of a given collocation or colligation,
- all these word cooccurrences can be provided within definitions of words, as at (5) above, or as independent lists.

(11) At the word-formatational level, it is relatedness of words by a shared base word, realized in the following ways:

- providing a list of word families, i.e. morphologically and semantically related words containing, or building around, a given base word,
- providing a list of words beginning with a given base, prefix or initial combining form,
- providing a list of words ending with a given base, suffix or final combining form,
- providing a list of words beginning with a given prefix or initial combining form and ending with a given suffix or final combining form,
- providing frequency of occurrence of words with competing prefixes or initial combining forms and/or competing suffixes or final combining forms,
- providing component bases of blends,
- providing full forms of clippings,
- providing full forms of acronyms.

(12) At the interlingual level, it is translation of words, realized in the following ways:

- providing translation of contextualized words, including their different senses, sense relations, collocations and idioms, from English into another language or multiple languages simultaneously,
- providing translation of contextualized words, including their different senses, sense relations, collocations and idioms, into English and other languages from another language,
- providing guidance on false friends from English and into English.

Components of micro-lexical and macro-lexical summaries just outlined jointly make up an extensive lexical summary of any word in English, recording its individual properties as well as its relations with other comparable words. In accordance with the user's own needs and preferences, these distinctive components can be called forth either separately, or in smaller or larger clusters – or the two summaries can be put together, in part or in full, to produce a neatly arranged major dictionary-style entry to be called here mega-lexical summary, that affords a detailed insight into, and presents a comprehensive overview of, the behaviour of any given word looked up and into.

For the components reflecting aspects of this behaviour to become available, AI chatbots need to be questioned and/or instructed via efficiently phrased prompts. These prompts and ways of their wording, along with selected examples, will be dealt with next.

2.3. *The hows: pointers for efficient phrasing of prompts for AI chatbots*

The quality and quantity of responses to user questions or instructions to any AI chatbot, whether they are simple, complex or complicated, and whether they are about the English vocabulary or not, depend crucially on the quality and quantity of the phrasing of prompts that contain user questions or instructions, and that are input in written, keyed-in, or spoken form to the AI chatbot to tackle. In what follows some practical pointers on the efficient phrasing of prompts for lexical exploration, stemming from the author's own first-hand experience, will be offered and subsequently illustrated with concrete representative samples.

2.3.1. *Theoretical preliminaries to phrasing AI chatbot prompts*

First of all, there are three general premises, already mentioned, that have to be borne in mind when working with AI chatbots: firstly, the user can address them textually, by using ordinary language and, in return, AI chatbots produce a textual, or, in some cases, graphic, visual or vocal, reaction; secondly, AI chatbots have been trained on a vast amount of textual material available across and around the internet, and some of them additionally have access to the internet in real time; and thirdly, AI chatbots in fact analyse, organize, reorganize, summarize and display the data originally fed into them.

It has been found out by the author that AI chatbots do exceptionally well in handling contextualized language as it is actually used and, especially, contextualized words. This primarily involves four strongly pragmatics-based linguistic phenomena:

- meaning of concrete words, including very latest creations, in concrete contexts,
- collocations of concrete words in concrete contexts,
- examples of use of concrete words in concrete contexts, and
- frequency of occurrence of concrete words and their forms in concrete contexts.

In order that prompts directed at AI chatbots could successfully elicit these and all other features and relations sketched out above, the following simple tried-and-tested do's and don't's could prove helpful in composing prompts:

- Always provide at least minimal sentential context, since the more background is given the clearer and fuller understanding of your question and/or instruction will be achieved, as in *sexual harassment?* (no context available, the user's intention hardly manageable) vs *What does sexual harassment mean?* (some context, moderately manageable) vs *What does the*

noun sexual harassment *mean in this sentence: She is the victim of her boss's sexual harassment (optimal context, quite manageable).*

- Always make your prompt as precise and as specific as possible, since too general and too vague phrasing is liable to return too general and too vague, and hence rather unsatisfactory, responses with only a (randomly?) selected amount of information.
- Always make your point clear and your intention unambiguous, and make sure that you and the AI chatbot understand each other well by sharing the same meaning of the terms you use.
- Structurally, your prompts can be in the form of a request, as in *Provide / List / Show all words that...*, or a question, as in *Can / Could / Will / Would you provide all words that...?*, or a statement, as in *I would like to know / have / see all words that...*, and all three forms may be enhanced with politeness markers, like *please*; arguably the least desirable form, because the vaguest, most indeterminate and most ambiguous, and thus the least constructive, is to supply only the bare key words sought, as in *all the words that...*
- If and when necessary, experiment with multiple versions of your prompt, by adding, removing or modifying the text in part or in full, until you are provided with the best and most satisfactory response.
- If not satisfied with the results obtained, ask the AI chatbot to regenerate its response or, when and where possible, choose one of the parallel drafts it has prepared.
- Do not hesitate to consult the AI chatbot about how best to phrase your prompt so as to best achieve the desired or expected result.
- Do not hesitate to ask the AI chatbot to explain, justify and defend the concrete response it has provided.
- Do not hesitate to correct the errors made by the AI chatbot and to teach it new stuff, which will be gratefully acknowledged and kept in mind and in action for the duration of the ongoing session.
- When asking for various lists to be compiled, take special care to avoid, more often than not, ending up, for reasons not yet fathomed, with curtailed lists bringing only a fragment of the items expected, typically introduced by AI chatbots with phrases like 'here are some of' or 'these are some of' – for lists to be less of the 'some' type and more of the 'all' type, your prompt should include phrases like 'an exhaustive list', 'a comprehensive list', 'a full list', 'a list of all', 'a list with no fewer than', 'with no exceptions', 'with no omissions', and, as an extra safeguard, the expected members of a list should

be broken down into smaller units, either restricted by ranges of letters, e.g. ‘from A to D’, ‘from E to I’, etc., or quantified by numbers, e.g. ‘the first 30’, ‘the next 15’, etc.

After these essential guidelines for efficient AI chatbot prompting, here now is a cross section of some of the tried-and-tested patterns of prompts composed for eliciting aspects of the twelve features and relations enumerated above.

2.3.2. *Practical applications of phrasing AI chatbot prompts*

The patterns to be offered are meant to motivate readers to exploit, modify, amend or expand prompts – or, if they so wish, to reject them altogether. The numbering of these paragraphs matches that of the paragraphs in the previous section and, by way of reminder, each of the paragraphs begins with a short descriptive heading:

(1) To elicit aspects of spelling of words:

- Are the two spelling variants, *gray* and *grey*, equally acceptable in English?
- Provide the standard spelling form of the noun *acommodation*.
- Is it properly spelled as *Pearl Harbour* or as *Pearl Harbor*?

(2) To elicit aspects of pronunciation of words:

- Provide the three possible standard pronunciations in RP, shown in IPA symbols, of the word *issue*.
- Provide the pronunciation in RP and GenAm, shown in IPA symbols, of the first name of the actress *Saoirse Ronan*.
- Is the pronunciation with /sk-/ for the word *schedule* acceptable in RP?

(3) To elicit aspects of grammar of words:

- Provide all parts of speech that the word *round* can appear in.
- Provide the functions of the word *stone* in the following two phrases: *a stone wall* vs *a wall made of stone*.
- Is the plural of the noun *mouse*, in the sense of computer pointing device, *mice*, or *mouses*, or both?

(4) To elicit aspects of etymology of words:

- Provide the language of origin and of transmission of the English adjective *legal*.
- Provide the year when the word *selfie* first appeared in English.
- Provide all the forms that today’s English word *milk* has had during its diachronic development.

- (5) To elicit aspects of descriptive meaning of words:
- Provide a list with all, repeat all, available meanings of the English verb *escape*, each with a short definition preceded by a key word from the definition and followed by an example sentence.
 - Provide the definition of meaning of the word *reader* in this sentence: *He is Reader in Modern English History at Lancaster University.*
 - Provide the definition in simplified language, within 35 words and one sentence, of the word *supercell storm*.
- (6) To elicit aspects of associative meaning of words:
- Provide the British counterparts of the American nouns *push-up*, *faucet*, *fall* and *cell phone*.
 - Provide 15 English formal words alongside their neutral counterparts.
 - Comment on the use and meaning of the word *wireless* in the following sentence: *My granny always listens to the news on the wireless.*
- (7) To elicit aspects of exemplification of use of words:
- Provide 10 sentences of various syntactic structures where the idiom *with flying colours* appears.
 - Provide no fewer than 25 examples each of the noun and the verb *love* in full sentences.
 - Create an image showing a *submersible* under the sea.
- (8) To elicit aspects of sense relations of words:
- Provide antonyms for the adjective *short*, with explanations and example sentences for both.
 - Provide 15 adjectives that express the notion of female physical beauty, with differential definitions and example sentences for each.
 - Provide at least 10 troponyms of the verb *walk*, with differential definitions each beginning with 'to walk'.
- (9) To elicit aspects of relatedness of words:
- Explain the difference between the nouns *submarine* and *submersible*.
 - Explain the difference in meaning between the following four words: *cohabiter*, *cohabitor*, *cohabitant* and *cohabitee*, and provide the frequency of occurrence for each.
 - Provide the frequency of occurrence of the following three spelling variants: *road map*, *roadmap* and *road-map*.
- (10) To elicit aspects of cooccurrence of words:
- Provide as many examples as you can of nouns that occur with the verb *clean* and then group those nouns according to similarity of meaning.

- Provide a list with at least 10 verbs that occur to the left of the noun *complaint*.
 - Provide a list of all prepositions that occur to the right of the adjective *angry*.
- (11) To elicit aspects of formation of words:
- Provide the meanings of the suffix *-ish* in the following four words: *Finnish*, *childish*, *reddish* and *sevenish*, and add two further examples for each meaning.
 - Provide as many examples as you can of the words that contain the base word *play* as a verb.
 - Provide a list of at least 15 adjectives that begin with the prefix *un-* and end with the suffix *-ible*.
- (12) To elicit aspects of translation of words:
- Provide all possible translations into Serbian of the English word *global warming*.
 - Provide a translation or translations into English of the Serbian sentence *Srce moje pametno!*, said to a bright child by their mother.
 - Provide the English counterpart of the Serbian word *oldtajmer*, referring to a motorcar.

2.4. A proposal for a practical interactive exercise: building mega-lexical summaries

Having examined the whys, whats and hows of exploiting AI chatbots and building micro- and macro-lexical summaries for words, it now becomes possible to have AI chatbots produce MEGA-LEXICAL SUMMARIES of words that contain all or some components of micro- and macro-lexical summaries, in line with the user's own needs and preferences.

The proposal for this practical interactive exercise in efficient and effective AI chatbot prompting and building mega-lexical summaries has been thought of as the final and most creative stage of getting acquainted with the workings of AI chatbots, in which readers will have an opportunity to instruct them to draw up dictionary-style entries of micro, macro or mega quantity and quality. By way of a starting point, a model prompt, tried and tested, aiming at producing a mega-lexical summary of the English verb *play* is provided below. Readers can use this template in full, without any changes, or they can add new points, or remove existing points, or modify existing or new points, or alter some phrasings, or introduce new words.

Possibilities for experimentation – and play – are virtually unlimited and bounded only by readers’ imagination, invention and will. Here now is that kick-off template prompt:

I need a dictionary-style entry of the English verb *play*, which will include the following information: (1) its spelling, (2) in the next line, its pronunciation in IPA symbols, (3) in the next line, its part of speech with subcategorization, (4) in the next line, all of its grammatical forms, each of them with its pronunciation in IPA symbols, (5) in the next line and each within a separate paragraph, numbered definitions, within 15 words, of each of its senses and each definition preceded in bold by a key word from the definition, (6) in the next line, three example sentences for each of its senses, (7) in the next line, at least ten collocations for each of its senses, (8) in the next line, at least five synonyms for each of its senses, and (9) at the bottom, in a separate table, at least 15 words derived from the verb *play*.

The results to be obtained readers may find satisfactory, fully or partly, or unsatisfactory, partly or fully. To gain complete satisfaction, they are free to manipulate the phrasings at their own pleasure, using the tips and tricks given above or they can try their own hands-on experience. What is more, this kick-off template prompt they can test with all four AI chatbots and compare the results they yield.

And, in closing the present section, it has to be stressed that this exercise in efficient AI chatbot prompt phrasing is, collaterally, also an excellent exercise in applied pragmatics, in efficient language use, in careful utterance production, in focused juggling with words and sentences, all in an attempt to attain the expression of one’s communicative intentions in as straightforward, concise and to-the-point a manner as possible, and thus to induce and elicit as satisfactory, helpful and usable a response as feasible.

3. EXPLORING ENGLISH NEOLOGISMS WITH RESOURCES OF AI CHATBOTS

This section deals with English neologisms and ways in which their explorers can benefit from resources offered by AI chatbots. The discussion is divided into four parts: defining English neologisms (3.1), explorable domains of English neologisms (3.2), finding English neologisms in dictionaries (3.3), and building lexical summaries for English neologisms with AI chatbots (3.4).

3.1. Defining English neologisms

Neologisms are words like all other words in the English vocabulary but with a striking difference: they have appeared in the vocabulary relatively recently and ‘relatively recently’ can span a period from roughly a day or more to roughly several decades or more. As fresh additions to the vocabulary, neologisms are indicative of various important aspects in the development of the system and the use of the system of a language. These aspects, which will be taken up presently, afford illuminating insights into lexical, linguistic and extralinguistic trends that reflect the present and partly the past and the future of English and, by extension, of any other language, and that is why they are extremely challenging and rewarding not only to explore, but also to describe lexicologically and lexicographically, and to teach in schools and at universities.

To make matters clearer, a working definition of neologism is first in order: by the term NEOLOGISM is meant here (1) a new word that has appeared in a language within the period of the present moment and up to around 25 years into the past, (2) a lexical innovation at the level of form and/or content, (3) created by using domestic and/or foreign lexical resources, (4) to a greater or less degree established in the lexical system of that language, and (5) typically and most frequently first found in the media – print, electronic and social (for other definitions and treatments of neologisms, see Creese, 2018; Kerremans, 2015; Lehrer, 1996, 2003; Mattiello, 2017; Metcalf, 2002; Prčić, 2020, 2021; Renouf, 2013; Rodríguez Guerra, 2016; Stojičić, 2006; Štekauer, 2002).

And to make matters more specific, for the purpose of the present discussion, the turn-of-the-century approach will be used to define the term ENGLISH NEOLOGISM as follows: it is a lexical innovation at the level of form with its associated content that has appeared and established itself in English during the last decades of the 20th century and the first decades of the 21st century. Neologisms, like *Brexit*, *cancel culture*, *deepfake*, *gigafire*, *malvertising*, *non-paper*, *sharenting*, *shrinkflation*, *VAR*, *Zoom*_v, and hundreds of others, typically arise in, and belong to, different areas of human interest and activity, where they serve most notably as culture-specific terms, technical terms, politically correct terms, slang terms, Covid-related terms, Brexit-related terms (cf. Lalić Krstin and Silaški, 2018, 2019), and even, interestingly enough, Obama-related terms (cf. Wilson, 2008).

3.2. *Explorable domains of English neologisms*

Returning to the above-mentioned aspects of the development of the system and the use of the system of English, a total of eight notable domains can be identified of the exploration, and explorability, of English neologisms by linguistic professionals, university students, lexicographers and other word lovers. There now follows a run-through of these eight domains, together with the main topics that they cover (cf. Prčić, 2021):

(1) SEMASIOLOGICAL DOMAIN, which is concerned with forms that express content of neologisms, and focuses especially on the following topics:

- actual and potential neologisms,
- existing, developing and competing word-formation processes, affixes and combining forms,
- newly developed, developing and competing word-formation processes, affixes, combining forms and their uses.

(2) ONOMASIOLOGICAL DOMAIN, which is concerned with content that is expressed by forms of neologisms, and focuses especially on the following topics:

- types of meaning expressed word-formationally,
- newly developed and developing types of meaning.

(3) PRAGMATIC DOMAIN, which is concerned with interpreting the form and content of neologisms, and focuses especially on the following topics:

- recognizing neologisms,
- understanding the meaning of neologisms by hearers / readers,
- understanding the meaning of neologisms by speakers / writers,
- understanding the meaning of neologisms outside of context and within a given sentential context in conjunction with a given situational context.

(4) STYLISTIC DOMAIN, which is concerned with communicative effects achieved or meant to be achieved by neologisms, and focuses especially on the following topics:

- effects inferred by hearers / readers in a neologism,
- effects intended by speakers / writers in a neologism,
- attitudes towards neologisms by hearers / readers,
- attitudes towards neologisms by speakers / writers,
- effectiveness of neologisms,
- creativity, originality and play on words in making neologisms.

(5) SOCIOCULTURAL DOMAIN, which is concerned with communicative needs of a community and culture that are met or can be met with neologisms, and focuses especially on the following topics:

- needs and practices of giving new names word-formationally,
- types of concrete or abstract entities in the extralinguistic world for which neologisms serve as new names,
- types of parts of speech through which neologisms serve as new names,
- fields of human interest and activity in which neologisms serve as new names,
- general and terminological vocabulary in which neologisms occur as new names.

(6) CONTACT-CONTRASTIVE DOMAIN, which is concerned with the influence of other languages and cultures on neologisms in the target language, and focuses especially on the following topics:

- adaptation of neologisms to the system of the target language at the levels of form, function, meaning and use,
- translation of neologisms into the target language,
- differences between translating established words and neologisms,
- creation of neologisms in the target language under the influence of the source language,
- creation of source-and-target- and/or target-and-source-language hybrid neologisms,
- sense relations between borrowed and hybrid neologisms, and existing words.

(7) ETYMOLOGICAL DOMAIN, which is concerned with the development of neologisms, and focuses especially on the following topics:

- earliest recorded occurrence of a neologism in language,
- diachronic form-related variants and variations of a neologism,
- diachronic content-related variations of a neologism.

(8) LEXICOGRAPHIC DOMAIN, which is concerned with the treatment of neologisms in dictionaries, and focuses especially on the following topics:

- monitoring, collecting and describing forms, functions, meanings and uses of neologisms in monolingual general-purpose dictionaries, which are today increasingly available online only,
- describing, adapting and translating into the target language neologisms in bilingual or bilingualized general-purpose dictionaries or, preferably, in specialized bilingual or bilingualized dictionaries of new words.

3.3. Finding English neologisms in dictionaries

Established neologisms, when satisfying editorial criteria governed by a sufficient, and predetermined, number of occurrences in various kinds of texts,² become consolidated, or institutionalized, in the vocabulary and therefore merit inclusion in dictionaries. It is of great importance to make and subsequently to use dictionaries of, and with, neologisms, and for three compelling reasons:

- firstly, they record new words, both as new forms with new meanings and as new meanings of existing forms,
- secondly, they make it possible for interested users to appreciate new words, to understand appropriately new words at all levels of their spoken and written use, and to employ appropriately new words in their own speech and writing, and
- thirdly, they make it possible for interested researchers to explore new words, their forms, functions, meanings and uses, as will be sketched out shortly.

In the print-dominated lexicography, English neologisms were documented in specialized dictionaries of neologisms, which, at the beginning of the 21st century, appeared with a stock of new words from the turn of the century (cf. Barrett, 2007; Knowles and Elliott, 1998; McFedries, 2004; Wajnryb, 2005). As lexicography was transitioning to the internet and dictionaries were being usable and editable online, so neologisms began to be documented online, with one website, called *Word Spy*,³ setting the standard for neological online dictionaries. “Devoted to ‘lexpionage’, the sleuthing of new words and phrases that have appeared in print and online”, as it said in its mission statement, this unique dictionary, sadly no longer updated, provides all relevant and well cross-referred information, except for pronunciation, about hundreds of neologisms, dating from January 1996 till June 2018, ordered alphabetically and thematically. This website and its spin-off companion book *Word Spy. The Word Lover’s Guide to Modern Culture* (McFedries, 2004), together with the other three dictionaries mentioned above, bear ample testimony to numerous new additions to the English vocabulary at the start of the new century.

² For editorial criteria of some major dictionaries of English, see

- <https://www.oed.com/information/editorial-policy/how-words-enter-the-oed/> (Oxford English Dictionary),
- <https://www.merriam-webster.com/grammar/how-does-a-word-get-into-the-dictionary> (Merriam-Webster), and
- <https://www.dictionary.com/e/getting-words-into-dictionaries/> (Dictionary.com).

³ The address: <https://wordspy.com/>

As the ‘onlinization’ of lexicography and dictionaries has been taking root, supported by ever-so-smaller devices of mobile communication – laptops, tablets and, above all, mobile phones, neologisms are being treated no longer in specialized dictionaries but in mainstream general-purpose dictionaries, which are now being updated regularly with new material, that includes new words with new meanings and new meanings of existing words. Because the editorial process of updating dictionaries online has methodologically become quite easy, English neologisms are currently being monitored, collected and lexicographically described in ‘ordinary’ dictionaries, often crowdsourced by the public at large and later edited by professional lexicographers. Besides registering very latest neologisms in the word lists of their online general-purpose dictionaries, exploitable as primary sources, many renowned publishers, British, American and other, run on their websites special features where recently emerged neologisms are listed and/or explained, and exploitable as supplementary sources. Among the publishers offering these most useful sources of information on English neologisms, the following are the most prominent:

- *Merriam-Webster*, at:
<https://www.merriam-webster.com/>
<https://www.merriam-webster.com/words-at-play/new-words-in-the-dictionary>
- *Dictionary.com*, at:
<https://www.dictionary.com/>
<https://www.dictionary.com/e/c/word-trends/new-words/>
- *Collins Dictionary*, at:
<https://www.collinsdictionary.com/>
<https://blog.collinsdictionary.com/latest-language/>
- *Oxford Learner’s Dictionaries*, at:
<https://www.oxfordlearnersdictionaries.com/>
https://www.oxfordlearnersdictionaries.com/wordlist/new_words
- *Cambridge Dictionary*, at:
<https://dictionary.cambridge.org/>
<https://dictionaryblog.cambridge.org/category/new-words/>
- *Wiktionary, the free dictionary*, at:
https://en.wiktionary.org/wiki/Wiktionary:Main_Page
- *Urban Dictionary*, at:
<https://www.urbandictionary.com/>

However, by far the best and most exhaustive coverage of English established neologisms is to be found in the continuously updated online *Oxford English Dictionary*, or, much more often, *OED*, for short, at <https://www.oed.com/>. It provides thorough lexicographic treatment of individual words, with neatly laid-out and displayed information on their forms, functions, meanings and uses, and interrelations, as well as on their frequency of occurrence and etymological timeline.⁴ Moreover, from March 2000 to the present, the *OED* website has been carrying a regular quarterly updates section with annotated alphabetical lists of latest additions to the dictionary's overall word list.⁵

All these lexical resources, whether in the form of dictionary entries or of lists of new words, represent rich and valuable sources of knowledge that can be exploited widely and profitably, not only in appreciating and understanding neologisms and their use, but also in exploring various aspects of neologisms discussed above. Nevertheless, all these lexical resources, important and precious as they are, have recently received an unexpected and powerful reinforcement that can be construed either as a complement, or as a supplement, or as both – but not yet as a replacement – to their functionality. This reinforcement is, of course, AI chatbots, whose evolving role in exploring English neologisms will now be assessed.

3.4. Building lexical summaries for English neologisms with AI chatbots

In spite of sharing certain fundamental features, regarding essentially similar, and in some cases even the same, structure, organization and exploitability of the lexical resources they offer, the above-mentioned dictionaries and AI chatbots differ sharply in several conspicuous features.

Lexical resources to be exploited in dictionaries are (1) basically static, even though periodically expanded and/or amended with new material, (2) which, in turn, makes dictionaries comparable to reference corpora, whose size and composition are invariant, (3) which, in turn, makes the information given about words fixed, polished and consistent in quality and in quantity, (4) which, in return, guarantees the information made available to users to be accurate and reliable, because verified, prepared and published by professional lexicographers. Therefore, dictionaries can be viewed and used as authoritative sources of information on a finite set, however

⁴ For exemplification, see the treatment of the neologism headword *deepfake*: <https://www.oed.com/search/dictionary/?scope=Entries&q=deepfake>.

⁵ The address: <https://www.oed.com/information/updates/>

large, of words, including established neologisms, and their forms, functions, meanings and uses.

In contrast, lexical resources to be exploited through AI chatbots are (1) basically dynamic, especially with those having access to the internet, (2) which, in turn, makes AI chatbots comparable to monitor corpora,⁶ whose size and composition are variant, because increasing literally every day, (3) which, in turn, makes the information about words, in part, varying, raw and inconsistent in quality and in quantity, (4) which, in return, requires the information made available to users to be taken with a pinch or two of salt and, whenever seeming odd, to be double-checked for accuracy, reliability and even authenticity, because all that information has not been verified by professional lexicographers, but rather data-mined and crawled across the internet, where text production is free to anyone willing to write, or it has been invented by hallucinating AI chatbots. All this has led earlier to the statement on AI chatbots construable either as a complement, or as a supplement, or as both – but not yet as a replacement – to the functionality of dictionaries. That is why AI chatbots, even though dubbed multitasking superdictionaries, can be viewed and used as rich, handy sources of information, sometimes not quite trustable, on a virtually infinite set words, including both established and ‘establishescent’ neologisms, and their forms, functions, meanings and uses. And a particularly strong point of all AI chatbots, as already mentioned, has proved to be the pragmatics-driven provision of insights into the actual use of words in actual sentential and situational contexts, including all kinds of very latest uses in very latest contexts, and the information stemming from them.

Having drawn this significant distinction between dictionaries and AI chatbots, it must further be said that, as far as neologisms are concerned, AI chatbots offer the same types of information that describe properties of individual words and relations between individual words, and that appear in micro-, macro- and mega-lexical summaries of established words. In view of their deep pragmatic embeddedness, resources of AI chatbots can afford special insights into the behaviour of neologisms, including very new ones, that are typically not yet to be found in dictionaries. Among those special insights, the following are deemed especially pertinent, especially for ‘establishescent’ neologisms:


- showing actual use of words: multiple examples, able to run into dozens if necessary, of actual uses of a neologism, in phrases, clauses, sentences or

⁶ For the difference between reference and monitor corpora, see <https://www.sketchengine.eu/corpora-and-languages/corpus-types/>.

paragraphs, whose various parameters, like genre, field, topic, length and time of appearance, can be specified,

- showing collocations: multiple examples of collocations of a neologism, with various types of collocates occurring to its immediate left or right, if necessary placed within example sentences, clauses or phrases,
- showing word-formationally related words: members of the word family of a neologism,
- showing meanings: definitions of meanings of a neologism, including not only very new neologisms but also very new meanings,
- showing tendencies in use: frequency of occurrence of a neologism, including uses on the increase and on the decrease,
- showing etymology: year or decade of the first appearance of a neologism and its derivation,
- showing etymologically related sets: lists of neologisms that have appeared in a particular year or decade, and
- showing thematically related sets: lists of neologisms that belong to a particular area of human activity or interest.

By way of demonstration, a reduced lexical summary of the neologism *deepfake*, used as a noun, has been built by ChatGPT, combining some elements of its micro-lexical summary (with information about spelling, pronunciation, part of speech, etymology and meanings) and its macro-lexical summary (with information about contextualized collocations). The prompt used to elicit this response has been phrased as follows: ‘I would like you to provide a dictionary-style entry of the noun *deepfake* and to include the following information, each in a separate paragraph: (1) its pronunciation in IPA symbols, (2) its etymology with the year of its first appearance and its derivation, (3) definitions, each within 30 words, of each of its meanings as a noun, (4) five collocations, shown in alphabetical order, in bold and within a full sentence, of the noun *deepfake* with adjectives, and (5) five collocations, shown in alphabetical order, in bold and within a full sentence, of the noun *deepfake* with verbs’. The resulting lexical summary is shown in the screenshot in Illustration 7:



Sure, here's the dictionary-style entry for the noun 'deepfake':

Deepfake /'di:pfeɪk/ (*noun*)

Etymology: Coined in 2017, derived from 'deep learning' (a subfield of artificial intelligence) and 'fake' (false representation).

Definitions:

1. A manipulated or fabricated multimedia, typically a video or image, generated using deep learning techniques to convincingly depict events or people that did not occur or exist.
2. The technology or process used to create such deceptive media, often with malicious intent or for entertainment purposes.

Collocations (with Adjectives):

1. **Alarming deepfake:** The alarming deepfake video spread rapidly, raising concerns about misinformation.
2. **Convincing deepfake:** The actor's convincing deepfake portrayal of historical figures amazed the audience.
3. **Disturbing deepfake:** The disturbing deepfake images raised questions about the ethical implications of such technology.
4. **Hilarious deepfake:** The hilarious deepfake clip humorously swapped the faces of two famous comedians.
5. **Realistic deepfake:** The realistic deepfake raised doubts about the authenticity of the footage.

Collocations (with Verbs):

1. **Create a deepfake:** Using advanced software, they were able to create a deepfake that seamlessly merged two different speeches.
2. **Disseminate deepfakes:** Malicious actors attempted to undermine trust by disseminating deepfakes of political figures.
3. **Expose a deepfake:** Experts worked to expose the deepfake by analyzing inconsistencies in facial expressions.
4. **Produce deepfakes:** Some companies specialize in producing deepfakes for advertising and entertainment purposes.
5. **Spread deepfakes:** Social media platforms struggle to control the spread of harmful deepfakes across their networks.

Illustration 7: a reduced lexical summary as a dictionary-style entry of the noun *deepfake* (ChatGPT)

Needless to say, the number of examples for collocations might have been greater or smaller, examples of use of *deepfake* might have been requested as well as its derivationally related words, definitions might have been differently worded, and so on. Possibilities are virtually endless, as has already been said, and open to readers to try and experiment with, according to their own needs and preferences. It is exactly this, virtually endless possibilities, that make AI chatbots, viewed and used as multitasking superdictionaries, a most welcome addition to modern lexicography, serving as a complement, or a supplement, or both, to resources of mainstream online dictionaries – but not yet as their replacement, and for reasons already mentioned. Because of their continuously being updated with new material and, in consequence, their open-ended nature, AI chatbots are especially useful for exploring neologisms, and especially very latest neologisms. What is more, however weakness-prone at times, they appear to be the only tangible source of information for very recent vocabulary, that has not yet been formally documented.

4. CLOSING REMARKS

This paper has discussed the potentials of exploiting resources of AI chatbots in exploring the English vocabulary, including neologisms. The discussion has effectively assumed the form and the function of a linguist's concise step-by-step practical guide. Dealt with in the first part were AI chatbots as multitasking superdictionaries, lexical properties of words and relations between words available through AI chatbots, and theoretical and practical aspects of efficient AI chatbot prompting. And in the second part the focus was on exploring English neologisms – and specifically on defining neologisms, considering explorable domains of neologisms, finding neologisms in major print and online dictionaries, and building lexical summaries for neologisms with AI chatbots.

The story about AI chatbots and exploring the English vocabulary does not end here – rather, it must go on, since further topics are looking forward to being looked into. These topics are largely about putting micro-, macro- and mega-lexical summaries into joint action and include the following most rewarding ones:

- (help in the) translation of contextualized words from and into English, or any other pair of languages supported,
- (help in the) creation of materials to teach, or unteach, students of a specified age specified aspects of form, function, meaning and use of English words,
- (help in the) creation of tests, according to specified criteria, to evaluate students' mastery of various aspects of form, function, meaning and use of English words, and

- (help in the) compilation of entries for various dictionaries, or of various dictionaries themselves, general-purpose, specialized or terminological, monolingual, bilingual, bilingualized, multilingual or multilingualized, according to specified criteria (which has partly been done to explore and exemplify some of the ideas propounded in this paper).

Each of these, and other similar, topics require an in-depth analysis from theoretical, methodological and practical, or applied, perspectives. And as for dictionaries, AI chatbots may well represent a significant, if not historic, milestone in user-oriented lexicography, in which the quality, quantity and display of information on-screen are designed so as to be adaptable to users and controllable by users. The future in, and for, AI-driven lexicography is taking shape and some initial constructive feedback is already available from *TshwaneDJe* and *Lexonomy*,⁷ creators of the world's best two dictionary-making software packages.

Obviously, this story of AI-chatbot-assisted English vocabulary exploration and AI-chatbot-assisted custom-built dictionary making has just begun and is here to stay. In spite of occasional hallucinatory hiccups, which will hopefully be remedied in the not too distant future.

Tvrtko Prčić

ISTRAŽIVANJE ENGLESKOG VOKABULARA, UKLJUČUJUĆI NEOLOGIZME,
POMOĆU RESURSA AI-ČETBOTOVA U ULOZI MULTITALENTOVANIH
SUPERREČNIKA

Rezime

Ovaj rad bavi se teorijskim i, naročito, praktičnim aspektima istraživanja engleskog vokabulara, uključujući i neologizme, uz pomoć resursa dostupnih preko AI-četbotova, koji se posmatraju i koriste kao multitalentovani superrečnici. Izlaganje je podeljeno u četiri dela, kako sledi: Odeljak 1 nudi nekolike uopštene kontekstualne napomene; Odeljak 2 donosi raspravu o razlozima, sadržini i načinima istraživanja svojstava pojedinačnih engleskih reči i odnosa među njima korišćenjem AI-četbotova; Odeljak 3 donosi raspravu o teoriji i praksi istraživanja engleskih neologizama korišćenjem AI-četbotova; a Odeljak 4 pruža kratak

⁷ The addresses:

- <https://tshwanedje.com/> , <https://tshwanedje.com/articles/CODH-video-presentation-TLex-OpenAI-Integration/> , <https://dictionaryq.com/GPT-dictionary/> (TshwaneDJe), and
- <https://www.lexonomy.eu/> , <https://www.lexonomy.eu/#/chatgpt> , <https://www.lexonomy.eu/#/chatgpt35> (Lexonomy).

pregled primenjenih aspekata ostalih važnih oblasti istraživanja engleskog vokabulara, uključujući neologizme, pomoću AI-četbotova.

Ključne reči: vokabular, neologizmi, engleski jezik, istraživanje, iskorišćavanje, AI-četbotovi, teorija, praksa

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