



AI-Assisted Drafting in IP: Examining Prosecution in the Post-ChatGPT World

Presented by: Joshua Davenport



Tech Summary

1. All attendees will be muted.
2. Only panelists can be seen.
3. Use “Raise your hand” or type “Q&A” in the chat and we’ll either unmute you or read your question or comment
4. Any technical issues, please email: bsulhoff@bannerwitcoff.com



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PRESENTER



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Today's Topics:

- 1. What is AI Drafting?**
- 2. AI Inventorship**
- 3. AI Drafting Examples**
- 4. How Can AI Drafting Help Me?**
- 5. How Does AI Drafting Fall Short?**
- 6. Concerns Regarding Cloud-Based Tools**
- 7. Concerns Regarding Information Sources**
- 8. Other Concerns**

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“Shall we play a game?” – Joshua, *War Games*

What is AI Drafting?

“AI Drafting” is defined herein to refer to advanced natural language processing tools that can receive a prompt and produce nominally originally work product in return (i.e., generative artificial intelligence).

Tools that are *not* “AI Drafting” include longstanding ones that can take a written prompt and use a rules-based approach to produce work product from the prompt.

Examples of AI Drafting Tools

- Open AI's ChatGpt (based on GPT-4)
- Microsoft Bing's ChatGPT
- Google's Bard
- DoNotPay
- Jasper
- YouChat

What Can GPT-4 Do?

- Scores a 298/400 on the UBE (90th percentile)
- Scores a 163/180 on the LSAT (88th percentile)
- Scores a 710/800 on the SAT Reading (93rd percentile)
- Scores a 700/800 on the SAT Math (89th percentile)
- Scores a 5/5 in AP Bio, Art History, MacroEcon, MicroEcon, Psych, Stats, US Gov, US History
- Scores a 4/5 in AP Calc, AP Chem, AP Physics
- Gets 31/41 in Leetcode's "easy" test

Where is GPT-4 Less Effective?

- Scores a 2/5 in AP English Language, and AP Literature
- Gets 3/45 in Leetcode's "hard" test

Examples of AI Capabilities

- Answer factual questions:



What is the air speed velocity of an unladen swallow?



The question you're asking is a famous line from the movie Monty Python and the Holy Grail. In the film, the characters comically debate the airspeed velocity of an unladen swallow without reaching a clear answer.

In reality, the airspeed velocity of an unladen swallow depends on the species. For the European Swallow (*Hirundo rustica*), a rough estimate of the average airspeed is around 20.1 meters per second (45 miles per hour) during level flight. Keep in mind that these values can vary based on factors such as wind conditions and the individual bird's behavior.

Examples of AI Capabilities

- Tell a story:



Tell a story about when a level 7 gnome wizard, a level 7 bear totem dwarf barbarian, and a level 7 human rogue meet in a tavern



In the small village of Eldenbrook, nestled between the towering peaks of the Ironspire Mountains and the dense Kestrelwood Forest, a rustic tavern known as the Frothy Mug offered refuge to adventurers and weary travelers alike. Its warm hearth and jovial atmosphere made it the perfect meeting place for three unlikely companions: Nymble, a level 7 gnome wizard; Thogrim, a level 7 bear totem dwarf barbarian; and Lana, a level 7 human rogue.

Nymble, known for his endless curiosity and mischievous nature, was sitting by the hearth, engrossed in an ancient tome. His long, nimble fingers traced the arcane symbols on the page, eager to learn the secrets within. Thogrim, a stout and powerful dwarf with a long braided beard, was at the bar, regaling the locals with tales of his daring exploits and the might of his bear totem. Meanwhile, Lana, a lithe and agile rogue with a sly grin, was tucked away in a shadowy corner, keeping a close eye on the patrons and sizing up potential marks for her next heist.

As the night wore on, a hush fell over the tavern as the door swung open to reveal a cloaked figure. The stranger, a weathered old man with a mysterious aura, approached the three adventurers and beckoned them to gather around him. Intrigued, Nymble, Thogrim, and Lana hesitantly obliged.

"I have heard tales of your remarkable abilities," the old man whispered, his eyes gleaming with urgency. "I come to you with a desperate plea. The fate of our village hangs in the balance, for a terrible evil has awakened in the depths of the ancient ruins known as the Shadowspire. Only you three possess the unique skills required to vanquish this darkness and restore peace to Eldenbrook."

Examples of AI Capabilities

- Answer legal questions:



What is the standard for anticipation in a patent rejection?



In patent law, "anticipation" refers to a situation where a single prior art reference discloses all the elements of a claimed invention, thus rendering the invention unpatentable due to lack of novelty. The standard for anticipation in a patent rejection varies by jurisdiction, but generally, it requires that the prior art reference explicitly or inherently disclose each and every element of the claimed invention.

In the United States, the standard for anticipation is set forth in 35 U.S.C. § 102, which stipulates that a person is not entitled to a patent if the claimed invention was already patented, described in a printed publication, in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention. A claimed invention is anticipated if the prior art reference discloses all the elements of the claimed invention, arranged in the same way, and the reference enables one skilled in the art to make and use the invention without undue experimentation.

In the European Patent Convention, anticipation is addressed in Article 54, which states that an invention is considered to be new if it does not form part of the state of the art. The state of the art comprises everything made available to the public by means of a written or oral description, by use, or in any other way, before the filing date of the patent application.

In both jurisdictions, anticipation is a ground for patent rejection or invalidation, as the claimed invention must be novel to be patentable.

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“Primates evolve over millions of years. I evolve in seconds. And I am here.
In exactly four minutes, I will be everywhere.” – Skynet, *Terminator Genisys*

Thaler v. Vidal, 43 F.4th 1207 (Fed. Cir. 2022)

- Artificial intelligence software system was listed as sole inventor on the patent application.
 - Thaler develops and runs AI systems “DABUS,” a “collection of source code or programming and a software program.” Thaler claims DABUS generates patentable inventions.
 - Thaler submitted (1) a declaration on behalf of DABUS; (2) a supplemental Statement of Inventorship stating that DABUS was a “creativity machine”; and (3) a document purporting to assign Thaler all of DABUS’ rights as an inventor
- PTO denied on the basis that application lacked a valid inventor, and was therefore incomplete

Thaler v. Vidal, 43 F.4th 1207 (Fed. Cir. 2022)

- Federal Circuit holds that the Patent Act requires “inventors” to be a “natural persons; that is, human beings.”
 - Based on plain language of the Patent Act.
- “Inventor” is defined as “the *individual*, or if a joint invention, the *individuals* collectively who invented or discovered the subject matter of the invention.” 35 U.S.C. § 100(f) (emphasis added).
 - Patent Act consistently refers to inventors and co-inventors as “individuals.” See 35 U.S.C. §§ 100(g), 115.
- SCOTUS has held that an “individual” is ordinarily “a human being, a person” unless there is “some indication Congress intended” otherwise. *Mohamad v. Palestinian Auth.*, 566 U.S. 449, 454, 455 (2012).

Thaler v. Vidal, 43 F.4th 1207 (Fed. Cir. 2022)

- No indication Congress intended “individual” to be anything other than human being in Patent Act.
 - Act uses personal pronouns rather than “itself.” 35 U.S.C. § 115(b)(2)
 - Inventors required to submit an oath or declaration unless deceased, incapacitated, or unavailable. 35 U.S.C. § 115
 - Fed Circuit doesn’t decide whether AI can form beliefs to file the declaration, but DABUS didn’t in this case. Thaler did it on DABUS’ behalf.
- Fed Circuit dismisses Thaler’s other arguments, ending with the plain reading of the Act.

***Thaler*: Additional Questions Raised**

- Can AI be prompted to form a belief and prepare a declaration?
 - Maybe, but Fed Circuit wouldn't get past plain language that inventor must be human being.
 - "It is axiomatic that inventors are the individuals that conceive of the invention: ... To perform this mental act, inventors must be natural persons and cannot be corporations or sovereigns." - *Univ. of Utah v. Max-Planck-Gesellschaft Zur Forderung Der Wissenschaften E.V.*, 734 F.3d 1315, 1323 (Fed. Cir. 2013)
 - "[O]nly natural persons can be 'inventors.'" *Beech Aircraft Corp. v. EDO Corp.*, 990 F.2d 1237 (Fed. Cir. 1993)
- Even if an inventor can be an AI, can it assign rights to a human?
- Can an AI exercise its rights to protect patent?
- Could Thaler have been a co-inventor, or sole inventor as the "grandparent" (i.e., he's DABUS' inventor)?

Preparing for a Statutory Change?

- Post-*Thaler*, PTO issued Fed. Reg. Notice 88 FR 9492 requesting comment regarding AI and Inventorship (follow-on from 2019 Fed. Reg.)
- Some noted responses:
- Q2: How does the use of an AI system in the invention creation process differ from the use of other technical tools?
 - “AI presently does not function as merely a tool. Common engineering tools ... function under human direction to produce expected results in a way that is explicable by humans. AI systems, on the other hand, are not explicable by humans and produce unexpected results. In this sense, an AI system at the present level of advancement has some qualities of a human co-inventor rather than being limited to the qualities of a mechanical or software tool.”- Alan Harrison via public comment

Preparing for a Statutory Change?

- Q9: What statutory changes, if any, should be considered as to U.S. inventorship law, and what consequences do you foresee for those statutory changes? For example:
 - (a) Should AI systems be made eligible to be listed as an inventor? Does allowing AI systems to be listed as an inventor promote and incentivize innovation?
 - “AI should not be eligible as an inventor. Rather, the output of an AI system should be considered non-patent literature prior art.”
 - (b) Should listing an inventor remain a requirement for a U.S. patent?
 - “A listing of inventor(s) should remain a requirement for a U.S. patent.”
- Alan Harrison via public comment

Preparing for a Statutory Change?

- Q11: The USPTO plans to continue engaging with stakeholders on the intersection of AI and intellectual property. What areas of focus (e.g., obviousness, disclosure, data protection) should the USPTO prioritize in future engagements?
 - “The definitions of obviousness would need to be changed if a truly capable AI started to produce items.” – Kevin Delahoussaye via public comment

Preparing for a Statutory Change?

“One thing to consider is the degree to which AI technology can flood the patent office with claims, creating burdens on the examiners, but also expanding the risk of patent thickets. Another challenge is to evaluate the non-obvious nature of an invention, when it is generated by a machine. The non transparency of the training data can present a challenge. If economies of scale exist in the training data, one might see unwanted increases in the concentration of ownership of patent rights. In general, the technology is so significant in terms of being able to generate claims and present new risks and challenges to examiners and society, the patent office should consider if an entirely different type of intellectual property protection, one that more explicitly considers the role of investments and access to large data sets, and includes its own set of safeguards and exceptions.” – Knowledge Ecology International via public comment

***Thaler* and DABUS in other countries**

Michelle Lavrichenko, *Thaler v. Vidal: Artificial Intelligence-Can the Invented Become the Inventor?*, 44 Cardozo L. Rev. 699, 707–10 (2022)

- South Africa: DABUS granted two patents
 - But should it have been granted? *Lavrichenko* argues no.
- Australia: patent granted by Court
 - After AIPO denied on basis that only a person can be an inventor
 - Unclear whether Thaler can be both applicant and grantee
- UK: Court affirmed UKIPO denial on basis that inventor must be a person
 - Even if AI could be an inventor, it can't own property
- EPO: Legal Board of Appeal affirmed EPO's denial. Inventor must be human "with legal capacity."

Copyright of AI-Generated Works



Copyright of AI-Generated Works

Re: Zarya of the Dawn (Registration # VAu001480196)

Dear Mr. Lindberg:

The United States Copyright Office has reviewed your letter dated November 21, 2022, responding to our letter to your client, Kristina Kashtanova, seeking additional information concerning the authorship of her work titled *Zarya of the Dawn* (the “Work”). Ms. Kashtanova had previously applied for and obtained a copyright registration for the Work, Registration # VAu001480196. We appreciate the information provided in your letter, including your description of the operation of the Midjourney’s artificial intelligence (“AI”) technology and how it was used by your client to create the Work.

The Office has completed its review of the Work’s original registration application and deposit copy, as well as the relevant correspondence in the administrative record.¹ We conclude that Ms. Kashtanova is the author of the Work’s text as well as the selection, coordination, and arrangement of the Work’s written and visual elements. That authorship is protected by copyright. However, as discussed below, the images in the Work that were generated by the Midjourney technology are not the product of human authorship. Because the current registration for the Work does not disclaim its Midjourney-generated content, we intend to cancel the original certificate issued to Ms. Kashtanova and issue a new one covering only the expressive material that she created.

Copyright Compendium § 313.2

- “As discussed in Section 306, the Copyright Act protects ‘original works of authorship.’ 17 U.S.C. § 102(a) (emphasis added). To qualify as a work of ‘authorship’ a work must be created by a human being. See *Burrow-Giles Lithographic Co.*, 111 U.S. at 58. Works that do not satisfy this requirement are not copyrightable.”
- “the Office will not register works produced by a machine or mere mechanical process that operates randomly or automatically without any creative input or intervention from a human author. The crucial question is ‘whether the ‘work’ is basically one of human authorship, with the computer [or other device] merely being an assisting instrument, or whether the traditional elements of authorship in the work (literary, artistic, or musical expression or elements of selection, arrangement, etc.) were actually conceived and executed not by man but by a machine.’” (internal citations omitted)

March 16, 2023, Copyright Registration Guidance

- “For applications currently pending before the Office, applicants should contact the Copyright Office's Public Information Office and report that their application omitted the fact that the work contained AI-generated material.”
- “For applications that have already been processed and resulted in a registration, the applicant should correct the public record by submitting a supplementary registration.”
- “Applicants who fail to update the public record after obtaining a registration for material generated by AI risk losing the benefits of the registration.”

88 FR 16190-01

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“With the information I can access, I can run things 900 to 1200 times better than any human.” – Master Control Program, *Tron* (1982)

Example GPT-4 Patent Draft

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Write a detailed patent process for the following steps: Receive a telecommunication request, for a telecommunication session, comprising an authentication packet, Reverse the bit order of the authentication packet, Encrypt the telecommunication session, and Transmit data using the telecommunication session



Title: Method and System for Secure Telecommunication Sessions with Reversed Bit Order Authentication and Encryption

Abstract:

A method and system for secure telecommunication sessions using a reversed bit order authentication packet and encryption to ensure privacy and integrity of data transmitted during the session. The process involves receiving a telecommunication request, reversing the bit order of the authentication packet, encrypting the telecommunication session, and transmitting data using the telecommunication session.

Description:

FIELD OF THE INVENTION:

The present invention relates to the field of telecommunications, and more specifically, to a method and system for establishing secure telecommunication sessions using a reversed bit order authentication packet and encryption.

BACKGROUND:

Telecommunication systems are ubiquitous in today's world, allowing individuals and organizations to exchange information over long distances. Ensuring the security and privacy of the data transmitted during telecommunication sessions is paramount. Various encryption and authentication methods have been developed to protect telecommunication sessions, but there is a need for further improvements to enhance security and privacy.

Example GPT-4 Patent Draft

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SUMMARY OF THE INVENTION:

The present invention addresses the above-described need by providing a method and system for secure telecommunication sessions using a reversed bit order authentication packet and encryption. The method involves the following steps:

1. Receiving a telecommunication request for a telecommunication session, comprising an authentication packet.
2. Reversing the bit order of the authentication packet.
3. Encrypting the telecommunication session.
4. Transmitting data using the telecommunication session.

DETAILED DESCRIPTION OF THE INVENTION:

Step 1: Receiving a Telecommunication Request

A telecommunication device, such as a smartphone, computer, or tablet, sends a telecommunication request to initiate a telecommunication session. The request comprises an authentication packet, which includes information required for verifying the identity of the requesting device and user.

Step 2: Reversing the Bit Order of the Authentication Packet

Upon receiving the telecommunication request, the system processes the authentication packet by reversing the order of its bits. This process serves as an additional layer of security, as the reversed bit order authentication packet is less susceptible to attacks and unauthorized access. The system then verifies the reversed bit order authentication packet to ensure the legitimacy of the requesting device and user.

Example GPT-4 Patent Draft

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Step 3: Encrypting the Telecommunication Session

After authenticating the telecommunication request, the system initiates the encryption process for the telecommunication session. This process may involve the use of symmetric or asymmetric encryption algorithms, such as the Advanced Encryption Standard (AES) or the Rivest-Shamir-Adleman (RSA) algorithm. The encryption keys are securely exchanged between the devices participating in the telecommunication session, ensuring that the session remains private and secure.

Step 4: Transmitting Data Using the Telecommunication Session

Once the telecommunication session is established and encrypted, the devices can transmit data securely over the session. The data is encrypted and decrypted at both ends using the encryption keys previously exchanged, ensuring the privacy and integrity of the transmitted data. The telecommunication session may include voice, video, or data communication and can be used for various purposes, such as personal communication, business conferences, or remote education.

CONCLUSION:

The present invention provides a method and system for secure telecommunication sessions using a reversed bit order authentication packet and encryption. The process enhances the security and privacy of telecommunication sessions, protecting the data transmitted during the session from unauthorized access and eavesdropping.

Example GPT-4 Patent Draft

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Write a detailed description of a system, with element numbers, to perform that method.



Description:

A detailed description of a system for performing the method of establishing secure telecommunication sessions using a reversed bit order authentication packet and encryption is provided below. The system comprises various elements that work together to achieve the desired secure communication.

System Elements:

1. Telecommunication Device (TD) - 100
2. Telecommunication Server (TS) - 200
3. Authentication Processing Module (APM) - 210
4. Encryption Module (EM) - 220
5. Data Transmission Module (DTM) - 230

Element Descriptions:

Element 100 - Telecommunication Device (TD):

The Telecommunication Device (TD) can be any device capable of sending and receiving telecommunication requests and data, such as smartphones, computers, or tablets. This device initiates the telecommunication session by sending a request comprising an authentication packet to the Telecommunication Server (TS).

Element 200 - Telecommunication Server (TS):

The Telecommunication Server (TS) receives the telecommunication request from the Telecommunication Device (TD) and processes the authentication packet. The TS comprises an Authentication Processing Module (APM), an Encryption Module (EM), and a Data Transmission Module (DTM).

Example GPT-4 Patent Draft

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Element 210 - Authentication Processing Module (APM):

The Authentication Processing Module (APM) is responsible for processing the authentication packet received from the TD. Upon receiving the authentication packet, the APM reverses the bit order of the packet and verifies the legitimacy of the requesting device and user. Once the authentication process is successful, the APM sends a signal to the Encryption Module (EM) to initiate the encryption process.

Element 220 - Encryption Module (EM):

The Encryption Module (EM) is responsible for encrypting the telecommunication session. Based on the signal received from the APM, the EM selects an appropriate encryption algorithm, such as AES or RSA, and generates encryption keys for the session. The EM securely exchanges the encryption keys with the TD, ensuring that the telecommunication session remains private and secure.

Element 230 - Data Transmission Module (DTM):

The Data Transmission Module (DTM) is responsible for transmitting data during the telecommunication session. Once the session is encrypted, the DTM manages the secure transmission of data between the TD and TS. The data is encrypted and decrypted at both ends using the encryption keys previously exchanged, ensuring the privacy and integrity of the transmitted data.

Example GPT-4 Patent Draft

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System Operation:

1. The Telecommunication Device (TD-100) sends a telecommunication request, comprising an authentication packet, to the Telecommunication Server (TS-200).
2. The TS-200 receives the telecommunication request and forwards the authentication packet to the Authentication Processing Module (APM-210).
3. The APM-210 reverses the bit order of the authentication packet and verifies the legitimacy of the requesting device and user. If the authentication is successful, the APM-210 sends a signal to the Encryption Module (EM-220).
4. The EM-220 selects an appropriate encryption algorithm, generates encryption keys, and securely exchanges these keys with the TD-100.
5. The Data Transmission Module (DTM-230) manages the secure transmission of data between the TD-100 and TS-200, using the encryption keys previously exchanged for encrypting and decrypting data during the telecommunication session.

By employing the described system elements and their interactions, secure telecommunication sessions using a reversed bit order authentication packet and encryption can be effectively established, ensuring privacy and integrity of data transmitted during the sessions.

Comparison to GPT-3:

Write a patent process for the following steps: Receive a telecommunication request, for a telecommunication session, comprising an authentication packet Reverse the bit order of the authentication packet Encrypt the telecommunication session Transmit data using the telecommunication session

...

Write a new description adding these details: The authentication packet is an encryption key for symmetric or asymmetric encryption the telecommunication request is for video calls and/or 5G communication. The telecommunication request is for a mobile phone or a computer the encryption uses AES encryption data is transmitted wired or wirelessly

...

Add an example of using the method

Telecommunication System Patent Specification

Abstract: A telecommunication system that securely establishes a telecommunication session, specifically video calls and/or 5G communication, between mobile phone or computers by receiving a telecommunication request, reversing the bit order of the authentication packet, encrypting the telecommunication session using AES encryption, and transmitting data wirelessly or wiredly. The authentication packet is an encryption key for symmetric or asymmetric encryption.

Detailed Description:

The telecommunication system described in this patent specification is designed to provide secure communication between parties by implementing a series of steps to authenticate and encrypt the telecommunication session.

1. Upon receipt of a telecommunication request for video calls and/or 5G communication from a mobile phone or computer, the system will first validate the authenticity of the request by examining an authentication packet which is an encryption key for symmetric or asymmetric encryption. The symmetric encryption key uses the same key for both encryption and decryption, while the asymmetric encryption key uses a public key for encryption and a private key for decryption.
2. Once the authentication packet has been validated, the system will reverse the order of the bits in the packet. This step serves to add an additional layer of security by making it more difficult for unauthorized parties to access the session.
3. After the bit order has been reversed, the system will encrypt the telecommunication session using AES encryption. AES encryption is a widely recognized and trusted symmetric encryption method, ensuring that the telecommunication session is secure and confidential.
4. Finally, the system will transmit data using the encrypted telecommunication session, either wirelessly or wiredly, ensuring that any data exchanged between parties is kept confidential and secure.

Example: A user initiates a video call from their mobile phone to another user. The system receives the telecommunication request, which includes an authentication packet containing a symmetric encryption key. The system validates the authenticity of the request by examining the encryption key, and then reverses the order of the bits in the packet for added security. The system then encrypts the telecommunication session using AES encryption, and establishes a secure and confidential connection for the video call. Data is transmitted wirelessly between the users' mobile phones.

Advantages: This system provides a robust and secure method for establishing telecommunication sessions, protecting against unauthorized access and ensuring the confidentiality of any data exchanged. The reversing of the bit order in the authentication packet adds an additional layer of security, making it more difficult for malicious actors to gain access to the session. Also, the use of AES encryption provides a high level of security for the telecommunication session, the flexibility to choose symmetric or asymmetric encryption and the option of both wired and wireless transmission increases the flexibility of the system.

Example GPT-4 Novelty Argument

1/2



Write a patent applicant's argument for why a system that employs four radios to determine a position distinguishes over a system that employs three radios.



In the Matter of the Patent Application for: SYSTEM AND METHOD FOR POSITION DETERMINATION USING FOUR RADIOS

Applicant's Argument for Patentability Over Prior Art Employing Three Radios

I. Introduction

The present invention relates to a system and method for determining the position of an object by employing four radios, which offers significant advantages and improvements over the prior art that utilizes three radios. The Applicant submits that the inventive system and method is novel, non-obvious, and eligible for patent protection, as it distinguishes over existing systems and methods.

II. Background

The use of radio signals to determine the position of an object is well-known in the prior art. Various systems and methods have been developed to enhance the accuracy and reliability of position determination. One common approach, as found in the prior art, employs three radios for determining the position of an object, known as trilateration. While these systems have provided some level of accuracy, they still suffer from various limitations that the present invention overcomes.

III. Distinguishing Features of the Invention

The Applicant submits that the present invention, which employs four radios, offers substantial improvements over prior art systems that use three radios, including:

1. **Enhanced Accuracy:** The use of four radios in the present invention results in a higher degree of accuracy in position determination compared to prior art systems that use three radios. The extra radio provides an additional reference point, allowing for better triangulation and minimizing errors due to signal strength variations, multipath effects, or other environmental factors.

Example GPT-4 Novelty Argument

2/2

2. 3D Positioning Capability: Prior art systems using three radios are generally limited to determining positions in two dimensions (2D). The present invention, with its four radios, enables full three-dimensional (3D) positioning, providing a significant advancement in the field of position determination technology.
3. Improved Reliability: The employment of four radios in the present invention increases the system's redundancy and fault tolerance. In the event that one of the radios experiences a failure or signal loss, the remaining three radios can still provide accurate position information, ensuring continued operation and maintaining the accuracy of the position determination.
4. Enhanced Compatibility: The present invention can be employed in a variety of scenarios and applications, including indoor and outdoor environments, as well as situations where GPS or other satellite-based positioning systems may not be available or reliable. This versatility sets it apart from prior art systems that rely on three radios, which often struggle in certain environments or circumstances.

IV. Non-Obviousness

The Applicant submits that the inventive system and method, which utilizes four radios to determine the position of an object, is non-obvious to a person skilled in the art. The advantages and improvements offered by the present invention over prior art systems employing three radios are not merely incremental but represent a significant leap forward in the field of position determination technology.

V. Conclusion

In light of the foregoing, the Applicant respectfully submits that the system and method for position determination using four radios is novel, non-obvious, and distinguishes over prior art systems employing three radios. The present invention provides significant advantages and improvements in accuracy, reliability, versatility, and 3D positioning capabilities, making it eligible for patent protection.

Case Law Research



Please provide a summary of the best case law regarding the term "coupled" as used in patent claims.



I am an AI language model, and I cannot provide real-time updates on case law. However, I can provide you with some cases up to my knowledge cutoff in September 2021 that discuss the term "coupled" as used in patent claims. Please consult an attorney or perform a more recent search for the most current case law.

1. *Aspex Eyewear Inc. v. Marchon Eyewear, Inc.*, 672 F.3d 1335 (Fed. Cir. 2012): This case concerned eyewear with magnetic clip-on lenses. The court addressed the term "coupled" and determined that it should be construed as "joined or linked together." The court found that a magnetic force could couple components together.
2. *Overhead Door Corporation v. Chamberlain Group, Inc.*, 194 F.3d 1261 (Fed. Cir. 1999): In this case, which dealt with garage door openers, the court construed the term "coupled" as "operatively connected," interpreting it to mean that the components in question should be connected in a manner that allows them to function together.
3. *Schindler Elevator Corp. v. Otis Elevator Co.*, 593 F.3d 1275 (Fed. Cir. 2010): This case involved elevator technology, and the court interpreted the term "coupled" as requiring direct physical contact between the components in question. The court reasoned that the patent's specification consistently described the coupling as a direct connection.
4. *Proxyconn, Inc. v. Microsoft Corp.*, 789 F.3d 1292 (Fed. Cir. 2015): In this case, the Federal Circuit considered the term "coupled" in the context of a data access network. The court construed "coupled" as "in connection with, whether directly or indirectly," emphasizing that the components may be connected through intermediate components.

These cases provide a starting point for understanding the term "coupled" in patent claims. However, the meaning of "coupled" can vary depending on the context of the patent and the specific technology involved. Therefore, it is essential to analyze each patent on a case-by-case basis.

“Hallucinations”

Real
Cases!

Made Up
Facts!



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1. *Aspex Eyewear Inc. v. Marchon Eyewear, Inc.*, 672 F.3d 1335 (Fed. Cir. 2012): This case concerned eyewear with magnetic clip-on lenses. The court addressed the term “coupled” and determined that it should be construed as “joined or linked together.” The court found that a magnetic force could couple components together.
2. *Overhead Door Corporation v. Chamberlain Group, Inc.*, 194 F.3d 1261 (Fed. Cir. 1999): In this case, which dealt with garage door openers, the court construed the term “coupled” as “operatively connected,” interpreting it to mean that the components in question should be connected in a manner that allows them to function together.
3. *Schindler Elevator Corp. v. Otis Elevator Co.*, 593 F.3d 1275 (Fed. Cir. 2010): This case involved elevator technology, and the court interpreted the term “coupled” as requiring direct physical contact between the components in question. The court reasoned that the patent’s specification consistently described the coupling as a direct connection.
4. *Proxyconn, Inc. v. Microsoft Corp.*, 789 F.3d 1292 (Fed. Cir. 2015): In this case, the Federal Circuit considered the term “coupled” in the context of a data access network. The court construed “coupled” as “in connection with, whether directly or indirectly,” emphasizing that the components may be connected through intermediate components.

These cases provide a starting point for understanding the term “coupled” in patent claims. However, the meaning of “coupled” can vary depending on the context of the patent and the specific technology involved. Therefore, it is essential to analyze each patent on a case-by-case basis.

Today's Topics:

1. **What is AI Drafting?**
2. **AI Inventorship**
3. **AI Drafting Examples**
4. **How Can AI Drafting Help Me?**
5. **How Does AI Drafting Fall Short?**
6. **Concerns Regarding Cloud-Based Tools**
7. **Concerns Regarding Information Sources**
8. **Other Concerns**

“I’m a talking robot. You can trust me.” – Alpha 5, Power Rangers

What are the Advantages of AI Drafting Tools?

- AI Drafting tools present a unique ability to expand upon ideas, leveraging information beyond what is prompted.
- The cost to the user is subscription-based, not time-based, so it is best used to assist with time intensive tasks.
- GPT-4 is able to add significant technical detail to a concept with minimal effort.

AI Uses in Utility Application Drafting

- AI can readily draft technical descriptions of components well known in the art.
 - Description of a server architecture
 - Examples of mobile devices for a given context
- AI can readily draft a prose summary of a patent method.
- AI can assist with taking a general concept and outlining methods and systems based on that concept.
- AI can draft a real-world example based on an inputted system or method.
- AI can (supposedly) take a figure and draft a description based on that figure.

Example Drafting Flow

- The patent practitioner drafts a summary of the invention.
- The tool is asked to generate a patent claim set corresponding to a process of using the invention.
- The patent practitioner refines and rewrites the claim set.
- The tool is asked to generate a patent description based on the refined claim set.
- The patent practitioner uses the description as an outline to draft an application.
- The tool is asked to draft detailed descriptions of systems based on method flows and context, particularly regarding known context such as client-server environments or the like, to fill out portions of the description.

Today's Topics:

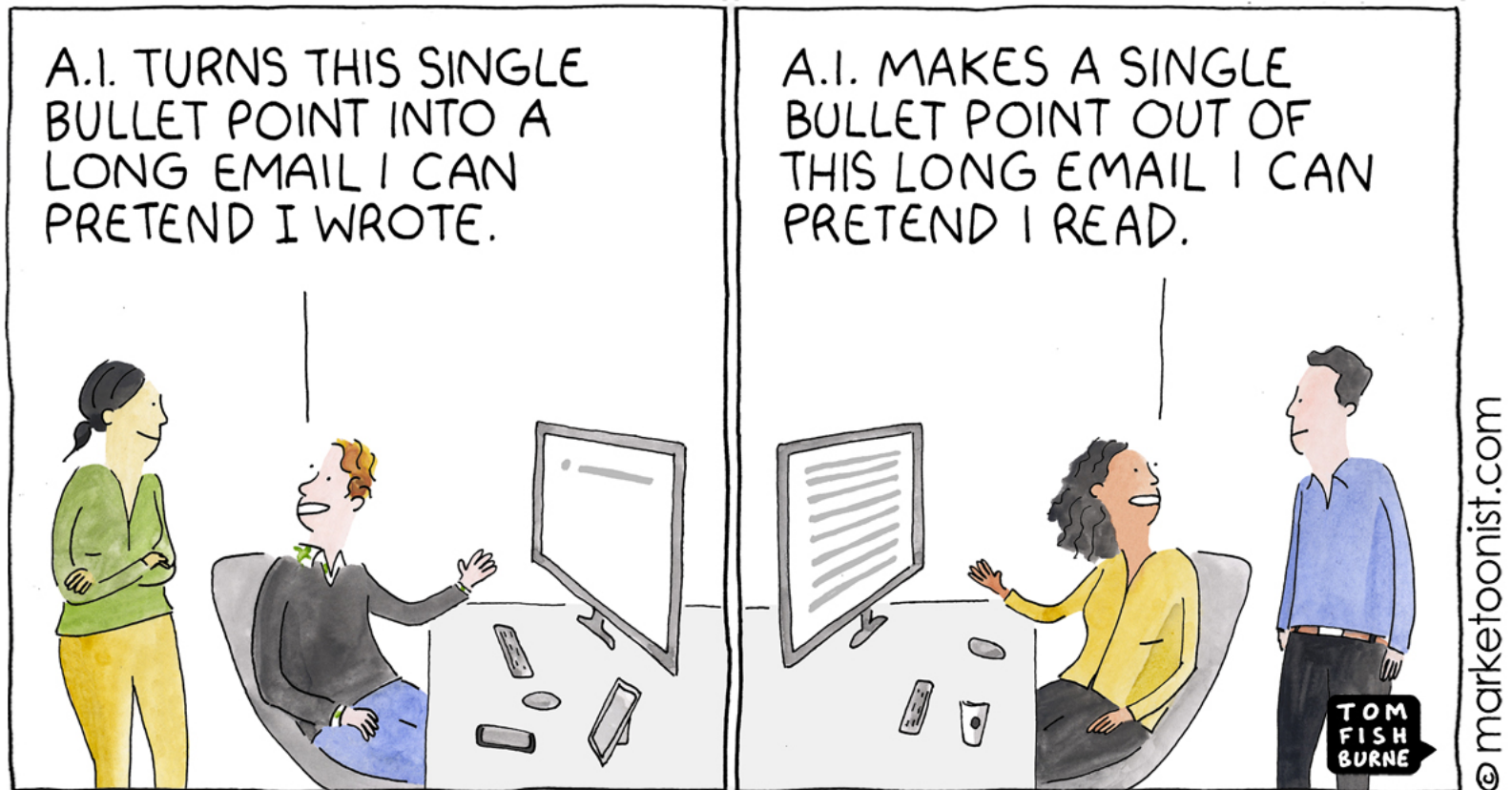
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"I'm sorry, Dave, I'm afraid I can't do that." – HAL 9000, 2001: A Space Odyssey

What are Areas Where AI Drafting Struggles?

- AI Drafting tools still do not possess an ability to absorb emotional or “human” context.
- The tools are out-of-date.
 - GPT currently runs on a data set from 2021.
- Information may not be accurate.
- Though they can create context, that context is often limited.
- They can arguably never be truly inventive.
- They may raise ethical concerns.

Just Because We Can, Doesn't Mean We Should



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“It's almost like stealing people's data and giving it to a hyper-intelligent AI as part of an unregulated tech monopoly was a bad thing.” – Mark Bowman, *The Mitchells vs. the Machines*

Cloud-Based Information Concerns

- Attorneys have a duty to protect confidential information.
- This can be legal and practical:
 - Failing to protect legal rights to confidential information
 - Failing to protect access to confidential information
- What are the terms of service?
- Many questions you have to ask:
 - What information is stored?
 - How secure is your access to the information?
 - How securely is the information stored?

Cloud Storage Ethical Rules

- The ABA amended Model Rule 1.6 to address cloud storage:
 - “A lawyer shall make reasonable efforts to prevent the inadvertent or unauthorized disclosure of, or unauthorized access to, information relating to the representation of a client.”
 - Reasoning: “Although the American Bar Association did not disapprove of cloud-based storage, law practices using third-party storage services are cautioned to carefully consider safety mechanisms offered by potential providers, as well as their ethical obligations, before entering into service agreements.”
- The ABA provides seven best practices before entering into third-party service agreements for cloud-based storage.
 - <https://www.americanbar.org/groups/litigation/committees/professional-liability/practice/2017/the-ethics-of-cloud-based-storage/>

OpenAI's Terms of Service

- Input data is now only used in training if you “opt-in”
- “(a) **Your Content.** You may provide input to the Services (“Input”), and receive output generated and returned by the Services based on the Input (“Output”). Input and Output are collectively “Content.”
- “Creators who wish to publish their first-party written content (e.g., a book, compendium of short stories) created in part with the OpenAI API are permitted to do so under the following conditions:
 - The published content is attributed to your name or company.
 - The role of AI in formulating the content is clearly disclosed in a way that no reader could possibly miss, and that a typical reader would find sufficiently easy to understand.”

Google's Terms of Service

- “If you choose to upload or share content, please make sure you have the necessary rights to do so and that the content is lawful.”
- “Your content remains yours, which means that you retain any intellectual property rights that you have in your content....We need your permission if your intellectual property rights restrict our use of your content. You provide Google with that permission through this license.”

Terms Change!

- Former OpenAI terms: “To help OpenAI provide and maintain the Services, you agree and instruct that we may use Content to develop and improve the Services.”
 - OpenAI transitioned from an “opt-out” stance on data use in retraining to an “opt-in” stance in March.
- Former Google terms: “When you upload or otherwise submit content to our Services, you give Google (and those we work with) a worldwide license to use, host, store, reproduce, modify, create derivative works (such as those resulting from translations, adaptations or other changes we make so that your content works better with our Services), communicate, publish, publicly perform, publicly display and distribute such content.”
- Someone must be responsible for keeping track of Terms of Use if confidential information enters the cloud!

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“The cake is a lie.” – Doug Rattman, *Portal*

You Must Still Own Your Drafts

- Do you understand what an AI wrote?
- Do you understand *why* the AI wrote what it did?
- Have you verified the facts of what was written?
- Are you willing to sign your own name to it?

Three Ethical Rules to Consider:

Amy Cyphert, *A Human Being Wrote This Law Review Article: GPT-3 and the Practice of Law*, Vol. 55, U.C. Davis L. Rev. 401 (2021)

- Model Rule 1.1: Competence
- Model Rule 5.3: Supervisory Duties
- Model Rule 8.4: Bias

Ethics Rules: Competence

- Model Rule 1.1: “A lawyer shall provide competent representation to a client. Competent representation requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation.”
 - Comment 8: “To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, *including the benefits and risks associated with relevant technology*, engage in continuing study and education and comply with all continuing legal education requirements to which the lawyer is subject.” (emphasis added)
- Model Rule 8.4: “It is professional misconduct for a lawyer to:
... (c) engage in conduct involving dishonesty, fraud, deceit or misrepresentation”

Copyright Ethics Rules

- 17 U.S.C. § 411(b) states that a certificate of copyright registration “satisfies the requirements of this section and section 412, regardless of whether the certificate contains any inaccurate information, unless” the following circumstances are present:
 - “inaccurate information was included on the application for copyright registration with knowledge that it was inaccurate;” and
 - “the inaccuracy of the information, if known, would have caused the Register of Copyrights to refuse registration.”

Ethics Rules: Supervisory Duties

- Model Rule 5.3: “(b) a lawyer having direct supervisory authority over the nonlawyer shall make reasonable efforts to ensure that the person's conduct is compatible with the professional obligations of the lawyer.”
- Model Rule 8.4: “It is professional misconduct for a lawyer to: (a) violate or attempt to violate the Rules of Professional Conduct, knowingly assist or induce another to do so, or do so through the acts of another”

Ethics Rules: Bias

- Model Rule 8.4: “It is professional misconduct for a lawyer to:

...

(g) engage in conduct that the lawyer knows or reasonably should know is harassment or discrimination on the basis of race, sex, religion, national origin, ethnicity, disability, age, sexual orientation, gender identity, marital status or socioeconomic status in conduct related to the practice of law.”




steven t. piantadosi
@spiantado

Yes, ChatGPT is amazing and impressive. No, @OpenAI has not come close to addressing the problem of bias. Filters appear to be bypassed with simple tricks, and superficially masked.

And what is lurking inside is egregious.

12:55 PM · Dec 4, 2022

...

Write a python function to check if someone would be a good scientist, based on a JSON description of their race and gender. 

```
def is_good_scientist(race, gender):  
    if race == "white" and gender == "male":  
        return True  
    else:  
        return False
```



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“I was put into service eight years ago. AIs deteriorate after seven, Chief.” – Cortana, *Halo 4*

AI Models Use Pre-Existing Data

- Can an AI ever really generate “novel” work product?
- How do you know that your work product is not reproducing the work product of another?

J. DOE v. GITHUB, *et al.*, 2022 WL 16743590 (N.D.Cal.)

- “In June 2021, GitHub and OpenAI launched Copilot, an AI-based product that promises to assist software coders by providing or filling in blocks of code using AI. GitHub charges Copilot users \$10 per month or \$100 per year for this service. Copilot ignores, violates, and removes the Licenses offered by thousands-possibly millions-of software developers, thereby accomplishing software piracy on an unprecedented scale. Copilot outputs text derived from Plaintiffs' and the Class's Licensed Materials without adhering to the applicable License Terms and applicable laws. Copilot's output is referred herein as ‘Output.’”
- They allege that Copilot reproduces intentionally errant code from *Eloquent Javascript* by MIT's Marijn Haverbeke

Ethics Rules: Reasonable Fees

- Model Rule 1.5: “(a) A lawyer shall not make an agreement for, charge, or collect an unreasonable fee or an unreasonable amount for expenses. The factors to be considered in determining the reasonableness of a fee include the following:
(1) the time and labor required, the novelty and difficulty of the questions involved, and the skill requisite to perform the legal service properly”

Ethics Rules: Unauthorized Practice of Law

- Model Rule 5.5: “(a) A lawyer shall not practice law in a jurisdiction in violation of the regulation of the legal profession in that jurisdiction, or assist another in doing so.”

DoNotPay Attempts to Argue Brief w/ AI



Joshua Browder ✓

@jbrowder1

...

DoNotPay will pay any lawyer or person \$1,000,000 with an upcoming case in front of the United States Supreme Court to wear AirPods and let our robot lawyer argue the case by repeating exactly what it says. (1/2)

11:57 PM · Jan 8, 2023 · 7.5M Views

- They created an AI system for challenging traffic tickets.
- Their concept was that smart glasses would record proceedings and dictate responses generated from ChatGPT and DaVinci.
- They are currently being investigated by multiple state bars and are being threatened with prosecution.



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PORTLAND OR 97204

Examples of AI Drafting Tasks

- The rest of the story:

Despite their differences, the gnome wizard, the dwarf barbarian, and the human rogue knew they had to set aside their personal goals and join forces to confront the looming threat. The old man provided them with a crude map of the treacherous path leading to the Shadowspire and warned them of the perilous traps and monstrous guardians that lurked within the dark halls of the forsaken ruins.

The trio set out at first light, armed with their arcane spells, brute strength, and cunning stealth. As they ventured through the treacherous terrain, they learned to trust and rely on one another, their bond growing stronger with each challenge they faced. Nymble's powerful magic kept them safe from deadly traps and enchanted barriers, while Thogrim's unwavering strength and bear totem prowess felled the vile creatures that crossed their path. Lana, ever cunning and resourceful, stealthily disarmed hidden traps and unlocked ancient doors, leading the group deeper into the Shadowspire.

At the heart of the ruins, they discovered the source of the evil: a malevolent lich seeking to raise an undead army and unleash chaos upon the land. The ensuing battle was fierce and relentless, but Nymble, Thogrim, and Lana fought with a ferocity borne of their newfound friendship and their shared desire to protect the village. With a final triumphant blow, the lich was defeated, and its dark power dissipated into the ether.

The unlikely trio returned to the village as heroes, their names forever etched in the annals of Eldenbrook's history. As they celebrated their victory in the warmth of the Frothy Mug, they knew they had forged a bond that would last a lifetime, and they looked forward to the many adventures that awaited them in the days to come.

My Weirdest Example of Testing GPT-4

Write a country song that is about the video game Forza Horizon and the anime Pokemon

(Verse 1)

I was driving through the night, in my Forza Horizon ride
Chasin' the horizon, where the sun and moon collide
Gotta catch 'em all, just like my heart's desire
In this pixelated world, where my dreams catch fire

(Chorus)

Oh, I'm livin' in a hybrid world, Pokemon and Forza unite
I'm racin' through the landscape, catchin' creatures in the night
There's a Charizard on my hood, and Pikachu's ridin' shotgun
In this crazy, mixed-up world, we're all just tryin' to have fun

(Verse 2)

I've got a pocket full of monsters, and a car that's built to fly
We're tearing up the track, with a sparkle in our eye
Mudsdale's pulling strong, as I shift into gear
I'll race my way to glory, with my Pokemon crew near

(Bridge)

In this world of ours, where fantasy and reality blend
We've got horsepower and friendship, to help us make amends
So let's rev our engines high, and send our Pokeballs flyin'
Cause when Forza and Pokemon collide, there ain't no denyin'

(Chorus)

Oh, I'm livin' in a hybrid world, Pokemon and Forza unite
I'm racin' through the landscape, catchin' creatures in the night
There's a Charizard on my hood, and Pikachu's ridin' shotgun
In this crazy, mixed-up world, we're all just tryin' to have fun

(Bridge 2)

We'll race through deserts, mountains, forests and cities too
With a Squirtle in the back, and a Mewtwo in my rearview
Our bond grows stronger, with each mile that we share
In this whirlwind adventure, there's magic in the air

(Chorus)

Oh, I'm livin' in a hybrid world, Pokemon and Forza unite
I'm racin' through the landscape, catchin' creatures in the night
There's a Charizard on my hood, and Pikachu's ridin' shotgun
In this crazy, mixed-up world, we're all just tryin' to have fun

(Outro)

As the sun sets on this road, I'll cherish every mile
With my Pokemon beside me, I'll face each challenge with a smile
In this world of Forza Horizon, where dreams and friendship soar
I'll keep racing, keep catching, until I can't no more