

repetition and not an abstract idea, *Cal. Inst. of Tech. v. Broadcom Ltd.*, 25 F.4th 976, 988 (Fed. Cir. 2022).

- Claims to a packet monitor to identify disjointed connection flows as belonging to the same conversational flow were directed to an improvement in computer technology and not an abstract idea, *Packet Intel. LLC v. NetScout Sys., Inc.*, 965 F.3d 1299, 1308–10 (Fed. Cir. 2020).

- Claims to a primary station for use in a communication system, where an additional data field is added to enable the primary station to simultaneously send inquiry messages and poll parked secondary stations, were directed to an improvement in computer functionality, namely the reduction of latency experienced by parked secondary stations in communication systems and not an abstract idea, *Uniloc USA, Inc. v. LG Elec. USA, Inc.*, 957 F.3d 1303, 1305, 1307–08 (Fed. Cir. 2020).

- Claims to a cardiac monitoring device that analyzes the variability in the beat-to-beat timing for atrial fibrillation and atrial flutter to more accurately detect the occurrence of these cardiac conditions were directed to an improvement in cardiac monitoring technology and not an abstract idea, *CardioNet, LLC v. InfoBionic, Inc.*, 955 F.3d 1358, 1368–69 (Fed. Cir. 2020).

- Claims to varying the way check data is generated by modifying the permutation applied to different data blocks were directed to an improvement in a technological process for detecting systemic errors in data transmission and not an abstract idea, *Koninklijke KPN N.V. v. Gemalto M2M GmbH*, 942 F.3d 1143, 1150–51 (Fed. Cir. 2019).

IV. Applicability of the USPTO Eligibility Guidance to AI-Assisted Inventions

For the subject matter eligibility analysis under 35 U.S.C. 101, whether an invention was created with the assistance of AI is not a consideration in the application of the *Alice/Mayo* test and USPTO eligibility guidance and should not prevent USPTO personnel from determining that a claim is subject matter eligible. In other words, how an invention is developed is not relevant to the subject matter eligibility inquiry. Instead, the inquiry focuses on the claimed invention itself and whether it is the type of innovation eligible for patenting.

In contrast, the USPTO recently issued guidance on inventorship for AI-assisted inventions, which are inventions created by natural persons

using one or more AI systems.⁸² The guidance explains that current statutes (e.g., 35 U.S.C. 101 and 115) do not provide for recognizing contributions by tools such as AI systems (or other advanced systems) for inventorship purposes, even if those AI systems were instrumental in the creation of the invention. However, AI-assisted inventions are not categorically unpatentable. Patent protection may be sought for AI-assisted inventions where one or more persons made a significant contribution to the claimed invention.

V. Examples

The USPTO has developed new subject matter eligibility examples for AI inventions. The examples provide exemplary subject matter eligibility analyses under 35 U.S.C. 101 of hypothetical claims.

Example 47 illustrates the application of the eligibility analysis to claims that recite limitations specific to AI, particularly the use of an artificial neural network to identify or detect anomalies. Example 48 illustrates the application of the eligibility analysis to claims that recite AI-based methods of analyzing speech signals and separating desired speech from extraneous or background speech. Example 49 illustrates the analysis of method claims reciting an AI model that is designed to assist in personalizing medical treatment to the individual characteristics of a particular patient.

These examples are intended to assist USPTO personnel and the public in understanding the proper application of the USPTO's subject matter eligibility guidance in certain fact-specific situations, such as whether a claim recites an abstract idea or whether a claim integrates the abstract idea into a practical application, because the claimed invention improves the functioning of a computer or another technology or technical field and thus is not "directed to" the abstract idea. The USPTO has also produced an updated index of examples, which includes examples issued prior to the publication of this guidance. A copy of the examples and the index are available on the USPTO's website (www.uspto.gov/PatentEligibility).

Katherine K. Vidal,

Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office.

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⁸² Inventorship Guidance for AI-Assisted Inventions, 89 FR 10043, 10044 FN1 (February 13, 2024).

DEPARTMENT OF COMMERCE

Patent and Trademark Office

Agency Information Collection Activities; Submission to the Office of Management and Budget (OMB) for Review and Approval; Comment Request; Rules for Patent Maintenance Fees

AGENCY: United States Patent and Trademark Office, Department of Commerce.

ACTION: Notice of information collection; request for comment.

SUMMARY: The United States Patent and Trademark Office (USPTO), as required by the Paperwork Reduction Act of 1995, invites comments on the extension and revision of an existing information collection: 0651–0016 (Rules for Patent Maintenance Fees). The purpose of this notice is to allow 60 days for public comment preceding submission of the information collection to OMB.

DATES: To ensure consideration, comments regarding this information collection must be received on or before September 16, 2024.

ADDRESSES: Interested persons are invited to submit written comments by any of the following methods. Do not submit Confidential Business Information or otherwise sensitive or protected information.

- *Email:* InformationCollection@uspto.gov. Include "0651–0016 comment" in the subject line of the message.

- *Federal eRulemaking Portal:* <http://www.regulations.gov>.

- *Mail:* Justin Isaac, Office of the Chief Administrative Officer, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313–1450.

FOR FURTHER INFORMATION CONTACT: Request for additional information should be directed to Raul Tamayo, Senior Legal Advisor, Office of Patent Legal Administration, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313–1450; by telephone at 571–272–7728; or by email at raul.tamayo@uspto.gov with "0651–0016 comment" in the subject line. Additional information about this information collection is also available at <http://www.reginfo.gov> under "Information Collection Review."

SUPPLEMENTARY INFORMATION:

I. Abstract

Under 35 U.S.C. 41 and 37 CFR 1.20(e)–(h), 1.362, 1.363, 1.366, 1.377, and 1.378, the USPTO charges fees for

maintaining in force all patents based on applications filed on or after December 12, 1980, except for plant and design patents. Furthermore, maintenance fees are required for a reissue patent unless the patent being reissued did not require maintenance fees. Payment of these maintenance fees is due at 3½, 7½, and 11½ years after the date the patent was granted. See section 2504 of the Manual of Patent Examining Procedure (MPEP) (9th Edition, Rev. 07.2022, February 2023) for more information.

If the USPTO does not receive payment of the appropriate maintenance fee and any applicable surcharge within a grace period of six months following each of the above due dates (at 4, 8, or 12 years after the date of grant), the patent will expire at that time. After a patent expires, it is no longer enforceable. Payments of maintenance fees that are submitted during the 6-month grace period before patent expiration must include the appropriate surcharge as indicated by 37 CFR 1.20(h). Submissions of maintenance fee payments and surcharges must include the relevant patent number and the corresponding United States application number in order to identify the correct patent and ensure proper crediting of the fee being paid. See MPEP 2506, 2510, and 2515 for more information.

If the USPTO refuses to accept and record a maintenance fee payment that was submitted prior to the expiration of a patent, the patentee may petition the Director to accept and record the maintenance fee under 37 CFR 1.377. This petition must be accompanied by the fee indicated in 37 CFR 1.17(g), which may be refunded if it is determined that the refusal to accept the maintenance fee was due to an error by the USPTO.

If a patent has expired due to nonpayment of a maintenance fee, the patentee may petition the Director to accept a delayed payment of the

maintenance fee under 37 CFR 1.378(b). The Director may accept the payment of a maintenance fee after the expiration of the patent if the petitioner shows to the satisfaction of the Director that the delay in payment was unintentional. Petitions to accept unintentionally delayed payment must also be accompanied by the required maintenance fee and the petition fee as set forth in 37 CFR 1.17(m). If the Director accepts the maintenance fee payment upon petition, then the patent is reinstated. If the USPTO denies a petition to accept delayed payment of a maintenance fee in an expired patent, the patentee may petition the Director to reconsider that decision under 37 CFR 1.378(d).

This information collection covers maintenance fee petition information, including the electronic interface and forms provided by the USPTO to assist the public with maintenance fee petitions. To pay a maintenance fee after patent expiration, the maintenance fee payment and the petition fee, as set forth in 37 CFR 1.17(m), must be filed together with a petition to accept an unintentionally delayed payment of the maintenance fee in an expired patent under 37 CFR 1.378(b). The USPTO offers two different versions of the form for petitions to accept unintentionally delayed payments of maintenance fees: a web-based ePetition and form PTO/SB/66 (a fillable PDF). The USPTO recommends the use of the web-based ePetition. The USPTO does not offer forms for the petitions to review the refusal to accept the payment of a maintenance fee prior to the expiration of the patent under 37 CFR 1.377 or the petitions for the reconsideration of decisions on petitions refusing to accept the delayed payment of a maintenance fee in an expired patent under 37 CFR 1.378(d).

A fee address indication form (PTO/SB/47) was previously associated with this information collection. This item permits applicants, patentees, assignees,

or their representatives of record to specify a “fee address” for correspondence related to maintenance fees that is separate from the correspondence address associated with a patent or application. This item is considered by OMB to be exempt from the PRA and therefore this item is no longer included in this information collection.

II. Method of Collection

The USPTO prefers for the items in this information collection to be submitted via online electronic submissions. Submission by mail, fax, or hand delivery is available. See MPEP 2510 for more information.

III. Data

OMB Control Number: 0651–0016.

Forms: (AIA = America Invents Act; SB = Specimen Book)

- PTO/SB/66 (Petition to Accept Unintentionally Delayed Payment of Maintenance Fee in an Expired Patent (37 CFR 1.378(b)))

Type of Review: Extension and revision of a currently approved information collection.

Affected Public: Private sector.

Respondent’s Obligation: Required to obtain or retain benefits.

Estimated Number of Annual Respondents: 2,616 respondents.

Estimated Number of Annual Responses: 2,616 responses.

Frequency: On occasion.

Estimated Time per Response: The USPTO estimates that the responses in this information collection will take the public approximately between 5 minutes (0.08 hours) and 8 hours to complete. This includes the time to gather the necessary information, create the document, and submit the completed request to the USPTO.

Estimated Total Annual Respondent Burden Hours: 3,424 hours.

Estimated Total Annual Respondent Hourly Cost Burden: \$1,530,528.

TABLE 1—TOTAL BURDEN HOURS AND HOURLY COSTS TO PRIVATE SECTOR RESPONDENTS

Item No.	Item	Estimated annual respondents (a)	Responses per respondent (b)	Estimated annual responses (a) × (b) = (c)	Estimated time for response (hours) (d)	Estimated hourly burden (hour/year) (c) × (d) = (e)	Rate ¹ (\$/hour) (f)	Estimated annual respondent cost burden (e) × (f) = (g)
1	Petition to Accept Unintentionally Delayed Payment of Maintenance Fee in an Expired Patent (37 CFR 1.378(b)) (Web-based ePetition and PTO/SB/66).	2,500	1	2,500	1	2,500	\$447	\$1,117,500
2	Petition to Review Refusal to Accept Payment of Maintenance Fee Prior to Expiration of Patent (37 CFR 1.377).	1	1	1	4	4	447	1,788

TABLE 1—TOTAL BURDEN HOURS AND HOURLY COSTS TO PRIVATE SECTOR RESPONDENTS—Continued

Item No.	Item	Estimated annual respondents (a)	Responses per respondent (b)	Estimated annual responses (a) × (b) = (c)	Estimated time for response (hours) (d)	Estimated hourly burden (hour/year) (c) × (d) = (e)	Rate ¹ (\$/hour) (f)	Estimated annual respondent cost burden (e) × (f) = (g)
3	Petition for Reconsideration of Decision on Petition Refusing to Accept Delayed Payment of Maintenance Fee in an Expired Patent (37 CFR 1.378(d)).	115	1	115	8	920	447	411,240
Totals		2,616		2,616		3,424		1,530,528

¹ 2023 Report of the Economic Survey, published by the Committee on Economics of Legal Practice of the American Intellectual Property Law Association (AIPLA); pg. F-41. The USPTO uses the average billing rate for intellectual property work in all firms which is \$447 per hour (<https://www.aipla.org/home/news-publications/economic-survey>).

Estimated Total Annual Respondent Non-hourly Cost Burden: \$2,577,316. There are no capital start-up, maintenance costs, or recordkeeping costs associated with this information

collection. However, the USPTO estimates that the total annual (non-hour) cost burden for this information collection, in the form of filing fees and postage, is \$2,577,316.

Filing Fees

Two petitions (IC lines 1 and 2) in this information collection have associated filing fees resulting in \$2,577,052 in filing fees.

TABLE 2—FILING FEES

Item No.	Fee code(s)	Item	Estimated annual responses (a)	Filing fee (\$) (b)	Non-hourly cost burden (a) × (b) = (c)
1	1558	Petition to Accept Unintentionally Delayed Payment of Maintenance Fee in an Expired Patent (37 CFR 1.378(b)) (undiscounted entity).	530	\$2,100	\$1,113,000
1	2558	Petition to Accept Unintentionally Delayed Payment of Maintenance Fee in an Expired Patent (37 CFR 1.378(b)) (small entity).	1,515	840	1,272,600
1	3558	Petition to Accept Unintentionally Delayed Payment of Maintenance Fee in an Expired Patent (37 CFR 1.378(b)) (micro entity).	455	420	191,100
2	1463	Petition to Review Refusal to Accept Payment of Maintenance Fee Prior to Expiration of Patent (37 CFR 1.377) (undiscounted entity).	1	220	220
2	2463	Petition to Review Refusal to Accept Payment of Maintenance Fee Prior to Expiration of Patent (37 CFR 1.377) (small entity).	1	88	88
2	3463	Petition to Review Refusal to Accept Payment of Maintenance Fee Prior to Expiration of Patent (37 CFR 1.377) (micro entity).	1	44	44
Totals			2,503		\$2,577,052

Postage Costs

Although the USPTO prefers that the items in this information collection be submitted electronically, responses may be submitted by mail through the United States Postal Service (USPS). The USPTO estimates that 1% of the 2,616 items will be submitted in the mail resulting in 26 mailed items. The USPTO estimates that the average postage cost for a mailed submission, using a Priority Mail legal flat rate envelope, will be \$10.15. Therefore, the USPTO estimates the total mailing costs for this information collection at \$264.

IV. Request for Comments

The USPTO is soliciting public comments to:

(a) Evaluate whether the collection of information is necessary for the proper

performance of the functions of the Agency, including whether the information will have practical utility;

(b) Evaluate the accuracy of the Agency’s estimate of the burden of the collection of information, including the validity of the methodology and assumptions used;

(c) Enhance the quality, utility, and clarity of the information to be collected; and

(d) Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

All comments submitted in response to this notice are a matter of public

record. The USPTO will include or summarize each comment in the request to OMB to approve this information collection. Before including an address, phone number, email address, or other personally identifiable information (PII) in a comment, be aware that the entire comment—including PII—may be made publicly available at any time. While you may ask in your comment to withhold PII from public view, the USPTO cannot guarantee that it will be able to do so.

Lisa Lawn,

Director, Records and Information Compliance Program Office, Office of the Chief Administrative Officer, United States Patent and Trademark Office.

[FR Doc. 2024–15704 Filed 7–16–24; 8:45 am]

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