Using Artificial Intelligence for Drafting Patents

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What we will cover

1 **Patent drafting basics**

Parts of the patent application and what makes drafting difficult

2 **How AI works**

Large language models in plain terms — strengths and weaknesses

3 **The software market**

Sample platforms

4 **Confidentiality & novelty**

Can using AI destroy the novelty of the invention?

5 **AI in practice – quality concerns**

When it is useful and when it does not replace human craft

6 **What attorneys say**

Adoption numbers and sentiment inside the profession

7 **What patent offices say**

USPTO and EPO positions on AI use in patent applications

8 **Conclusions**

PART 1

Patent drafting basics

Typical parts of a patent application

Claims

Define the boundary of the exclusive right.
Independent and dependents

Specification

Must describe the invention fully enough that a skilled person can reproduce it.

Drawings

Figures and reference signs.

Abstract & bibliography

Summary, title, priority data, inventor and applicant details.

Objectives when drafting a patent

DEFINING THE CLAIM-SCOPE

Too broad

Goes beyond the invention → invalid or rejected

Just right

Covers competitors' alternatives, survives validity attack

Too narrow

Easy to design around → little commercial value

Drafting is strategic, not just writing

- Translate an inventor's disclosure into legal language/patent document - starting from an inventor-attorney meeting
- Anticipate prosecution: build fallback positions and alternative embodiments
- Anticipate future litigation: every term may one day be disputed in court
- Keep internal consistency: terminology, antecedent basis, reference signs across 30+ pages
- Priority date.

What it takes to file a patent

40–100+

Hours of professional time for a complex application (biotech, software, engineering)

€6k–20k

Average attorney fees for drafting and filing one application

12 months

Priority window to extend internationally

High initial cost and time limits: for universities and startups, drafting cost is often the deciding factor in whether an invention gets filed at all

PART 2

How AI works

How LLMs work in the drafting process

1

Training

The model reads billions of documents –patents, articles, public knowledge, etc.

→

2

Prompting

You supply context (an invention disclosure, claims, instructions). The model uses this as the start of a document to be continued.

→

3

Output

The tool provides the wording. Output is fluent and format is correct — **but** produced with no deep/human understanding of the invention and no legal reasoning.

Important: an **LLM** looks for patents and builds on them but is **not a patent professional**. It has seen how thousands of patents are written but it does not know what your claims must cover – your inventive concept.

PART 3

The Software´s Market

HISTORICAL DEVELOPMENT

From macros in-house to generative AI

1990s–2000s

Templates & macros

Word templates, numbering macros, claim-tree spreadsheets. Automation of formatting, not content.

2007–2015

Proofreading engines

LexisNexis PatentOptimizer (2007), ClaimMaster: rule-based checks for antecedent basis, part numbering, publication support. Software as auditor.

2016–2022

Structured drafting & automation

Specifio (2016) auto-generates specs from claims; Rowan Patents brings a purpose-built drafting environment with live figures and claim sync.

2023–today

The GenAI wave

LLM platforms — DeepIP, Solve Intelligence, Patlytics, Patentpal, Edge, IP Author — draft claims and full specifications from invention disclosures.

Some platforms on today´s market – others (PatentPen/EPO, etc.)

DeepIP

1

Microsoft Word copilot

AI assistant in Microsoft Word.

Patlytics

2

End-to-end tool

Drafting plus prosecution, prior-art analytics and portfolio strategy in one platform.

Solve Intelligence

3

Inside your software - browser drafting editor

Browser editor combining claim drafting, figure generation and jurisdiction-specific workflows.

Rowan Patents

4

Integrated drafting environment

Purpose-built drafting app with consistent claims, figures and terms.

CLOSER LOOK (1/2)

DeepIP and Patlytics

DeepIP

APPROACH

Copilot inside Microsoft Word — attorneys keep their environment; AI drafts, rewrites and reviews in place.

FEATURES

Jurisdiction-aware; learns individual attorney style; vendor security; simple adoption.

WHAT USERS DAY

Optimized for software / mechanical / method inventions; fewer advanced features (e.g. figure generation); pricing reported at ~$350–420/user/month.

Patlytics

APPROACH

Multi-feature platform: drafting, prosecution, prior-art and portfolio analysis in one environment.

FEATURES

Claim generation with hierarchy and antecedent basis maintained; alternative embodiments and fallback positions; **big-firm** clients.

WHAT USERS SAY

Platform switch rather than plug-in; functionality can exceed what a small team needs.

CLOSER LOOK (2/2)

Solve Intelligence and Rowan Patents

Solve Intelligence

APPROACH

In-browser drafting: document editor with AI drafting, figure generation and review.

FEATURES

Jurisdiction-specific; figure generation; can be useful for high-volume prosecution teams.

WHAT USERS SAY

Not inside Word; **browser-based hosting must pass confidentiality review**.

Rowan Patents

APPROACH

Drafting app: claims, specification, figures and terms stay synchronized by design.

FEATURES

Structural consistency included, not by review.

WHAT USERS SAY

Less 'generative' - automation and structure first.

PART 4

Confidentiality & Novelty

CONFIDENTIALITY

Can drafting with AI destroy the novelty of the invention?



Situation: an inventor provides the full invention disclosure to a free public chatbot to “get a first draft”. Weeks before filing. Has the invention been disclosed?

The legal test

- Novelty is destroyed by information “made available to the public” or “otherwise available to the public”
- A transfer under a confidentiality obligation is generally not a public disclosure
- So the question is: **what do the AI provider's terms say about confidentiality — and what happens to your prompt?**

The risk

- Tools may reserve rights to review prompts and use them for training - no duty of confidence
- If your input resurfaces in another user's output before your filing date, prior-art and trade-secret arguments arise
- Breach of client confidentiality and privilege questions can arise the moment the data leaves your control

CONFIDENTIALITY

Where are the risks?

Training & retention	Prompts stored or used to train future models - your disclosure could be part of (or surface in) someone else's output.
Human review	Provider staff or contractors may lawfully read conversations under consumer terms of use — no duty of confidence to your client.
Privilege & secrecy	Sharing with a third party on uncontrolled terms can undermine attorney–client privilege and trade-secret status independent of patent novelty.
Export control & foreign filing	USPTO 2024 practitioner guidance: sending invention data to servers abroad can implicate national security, export control and foreign-filing-license (permission) rules.
Unpunishable infringement	Any stored prompt can become a future infringement.

CONFIDENTIALITY

Protective measures

Build in-house rules

No data retention, no training on inputs, confidentiality clauses that align with professional duties. Better in writing.

Internal policy & training

A written AI policy: which tools are approved, for which data, with which review steps.

Vendor due diligence

Understand each tool's data handling, hosting location, subprocessors and certifications before first use.

Client consent & transparency

Inform clients about AI use where required.

Deployment choice

Prefer local hosting, private instances or on-premise models for sensitive portfolios.

Inventors

TTOs: tell researchers explicitly — never paste an unfiled disclosure into a consumer chatbot.

PART 5

AI in Practice

When to use AI and what is best done by an expert

HIGH USE OF AI — DELEGATE THE VOLUME

Disclosure analysis	Summarize and structure inventor materials; generate interview questions
Background & summary	Time consuming heavy sections drafted in minutes, tuned to jurisdiction
Dependent claims & variants	Systematic generation of fallback positions and alternative embodiments for review
Description expansion	Turning approved claims into consistent description text and figure descriptions
Proofreading & formalities	Antecedent basis, reference signs, terminology, format checks — AI as tireless, fresh eyed auditor

KEEP HUMAN — CORE VALUE

Inventor interview	Extracting what is actually new — judgment, trust, follow-up instinct
Independent claim strategy	Scope vs. prior art vs. business goals: the decision that defines the patent
Prior-art	Deciding what to claim around, and how — AI can search; professional decides
Final review & signature	Professional responsibility cannot be delegated.

HOW CAN AI BEST HELP YOU

Other uses of AI beyond drafting

Prior-art search & Information Disclosure Statement

Semantic search finds art keyword search misses; AI selection of references and IDS preparation cuts hours per case.

Office action responses

Summarize rejections, map cited art to claims, draft argument skeletons — prosecution is the fastest-growing AI use.

Translations & foreign filing

First translations and jurisdiction reformatting compress national-phase cost — with local review still essential.

Portfolio work

Claim charting, landscape analysis, classification, evidence-of-use — analytics tasks where AI already outperforms manual effort.

QUALITY CONCERNS

Where AI drafts can present mistakes

Hallucinated technical detail	The model invents parameters, materials or method steps that were never disclosed — unsupported claims (§112 / Art. 83) / mislead the examiner.
Generic specification	Fluent paragraphs that describe nothing specific. Rarely provides fallback positions when you need them in prosecution.
Silent inconsistency	Broken antecedent basis, claim–spec mismatch introduced during regeneration — precisely the errors that are hardest to spot in polished prose.
Scope written by statistics	The model reproduces the average claim in its training data.

QUALITY CONCERNS

Practitioners/attorneys are responsible for the output

> *EPO Guidelines (2025), General Part 5: using an AI tool to prepare a document does not absolve parties or representatives of responsibility for its content.*
>
> — paraphrase; the principle is now explicit

> *USPTO practitioner guidance (2024): signature and candor duties apply to every filing regardless of how it was generated — practitioners must verify AI-drafted content.*
>
> — 37 C.F.R. §11.18(b) applied to AI-assisted filings

The practical consequence: the review burden

Every AI-generated sentence must be verified against the disclosure by someone competent to judge it. If review is shallow, errors arise; if review is thorough, it consumes part of the time saved.

PARTS 6 and 7

What attorneys and patent offices say

WHAT ATTORNEYS SAY

Adoption rate increases

31% → 69%

of legal professionals personally using GenAI for work — more than doubling from 2025 to 2026 (8am 2026 Legal Industry Report, >1,300)

up to 75%

reduction in drafting time reported for AI-assisted patent platforms — ~100 h of work compressed toward ~20 h (2025 vendor-side analysis). **What about expert review time?**

54%

of firms provide no training on responsible AI use — individual adoption is far ahead of firm governance (8am, 2026)

WHAT ATTORNEYS SAY

Three main opinions

The pragmatists (growing majority)

“It's a productivity multiplier, not a substitute.” First drafts, summaries and proofreading are delegated; strategy stays with the human expert. Over 80% of lawyers plan to increase AI use (Clio 2025).

The skeptics

Worry about fluent-but-wrong output, deskilling of juniors who never learn to draft from scratch, and clients discounting fees for work they assume is automated.

The competitive standpoint

“AI won't replace attorneys — attorneys using AI replace attorneys who don't.” Large firms adopt fastest; the capability gap between adopters and abstainers is widening.

WHAT PATENT OFFICES SAY

USPTO: tools yes, inventors no

2022–23	**Thaler v. Vidal (Fed. Cir.)**	An inventor must be a natural person. DABUS applications naming an AI as inventor refused — settled US law.
Apr 2024	**Practitioner guidance on AI tools**	Existing rules cover AI: signature & candor duties apply “regardless of how the paper was generated”; confidentiality, export-control and foreign-filing-license risks flagged; material AI use may need disclosure under §1.56.
Jul 2024	**Subject-matter eligibility update**	Guidance on §101 for AI inventions — examples for claims involving AI methods.
Nov 2025	**Revised inventorship guidance**	Feb 2024 “significant contribution / Pannu” framework rescinded. AI treated as a tool like any other; inventorship turns on traditional human conception. Simpler — but the inventor must genuinely possess the invention.

EPO & epi: practitioner holds responsibility

2021	**DABUS at the EPO (J 8/20)**	Boards of Appeal confirm: the designated inventor must be a human being. Same conclusion as the US, under the EPC.
Nov 2024	**epi Guidelines on Generative AI**	The professional body's framework: understand your tools; safeguard confidentiality of prompts and outputs; remain fully responsible for the work product; no obligation (currently) to tell the EPO or UPC that AI was used.
2025	**EPO Guidelines, General Part 5**	Explicit statement: using AI to prepare documents does not absolve parties or representatives of responsibility for the content.
Ongoing	**Examination unchanged**	No special treatment of AI-drafted applications: same novelty, inventive step and sufficiency standards — the application stands or falls on its content.

PART 8

Conclusions

WHO BENEFITS MOST?

Firms, universities, inventors — different wins

Law firms

- Large firms adopt fastest - efficiency
- Less time spent vs. fee charged to clients
- Business model question: the billable hour vs. fixed-fee AI-assisted drafting

Universities & TTOs

- Drafting cost is the filing bottleneck — lower cost means more disclosures protected
- Better-prepared disclosures and provisionals before attorney
- Caveat: budget-driven overreliance without expert review does not bring a quality output

Individual inventors

- Drafting assistance previously too expensive
- Inventor + AI can produce something that looks like a patent application
- But AI cannot create scope strategy

THE ROAD AHEAD

What the next five years will likely bring

From copilot to agent	Tools move from suggesting text to executing workflows: intake → search → draft → check → filing package, with human approval.
AI used by office too	Examiners adopt AI for search and analysis (EPO and USPTO both invest heavily) — AI-drafted applications reviewed by AI-assisted examiners.
Volume up	Cheaper drafting means more filings — quality bars and fee structures may change.
Rules will evolve	Disclosure-of-AI-use obligations, inventorship at the human-AI boundary, and liability for AI
The profession re-skills	Claim strategy, prompt-and-review craft, and AI governance become core competencies — the junior role changes more than the partner role.

Key takeaways

1. **AI is a transformation engine**: can turn disclosures into drafts and drafts into applications — but is blind to strategy. Human review remains essential for accuracy, scope, and legal strategy.

2. **Confidentiality concerns**: enterprise terms, zero retention, vendor due diligence — and never share an unfiled disclosure in a consumer chatbot.

3. **Attorneys own the output**: EPO and USPTO both say responsibility is not delegable.

4. **Adoption grows**: from ~31% to ~69% of legal professionals in a year.

5. **Biggest winners for cost saving** are universities, TTOs, startups — if expert review stays in the loop.

Thank you for your attention