

## The present future of patent drafting?



# White House AI EO requires PTO:



- By beginning of Feb 27, 2024, publication of AI guidance addressing inventorship and the use of AI, including generative AI...including illustrative examples in which AI systems play different roles in inventive processes and how, in each example, inventorship issues ought to be analyzed
- By July 26, 2024, additional guidance to USPTO patent examiners and applicants to address other considerations at the intersection of AI and IP, which could include, as the USPTO Director deems necessary, updated guidance on patent eligibility to address innovation in AI and critical and emerging technologies
- and also, at the same time or 6 months after the Copyright office AI study, recommendations to the President on potential executive actions relating to copyright and AI. The recommendations shall address any copyright and related issues discussed in the United States Copyright Office's study, including the scope of protection for works produced using AI and the treatment of copyrighted works in AI training.

# Patent Prosecution and AI - what could go right?

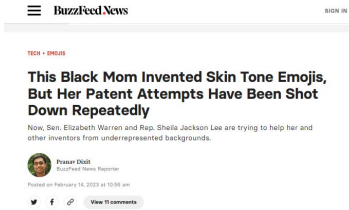
- “Patent prosperity” is not currently equally distributed
- AI has the potential to **level the playing field** and increase fair access to the patent system
- But – this won’t happen automatically

# Patent Prosecution and AI - what could go right?

- “Patent quality” is hard and expensive
- AI has the potential to **increase patent quality** and make it more efficient
- But – this won’t happen automatically

# Patent Prosecution and AI - what could go right?

➔ “Patent prosperity” is not currently equally distributed



## United States Senate

WASHINGTON, DC 20510

February 13, 2023

Kathi Vidal  
Under Secretary of Commerce for Intellectual Property and  
Director of the United States Patent and Trademark Office  
600 Dulany Street  
Alexandria, VA 22314

Dear Director Vidal:

We are writing to express our concerns regarding the disproportionate challenges that small businesses,<sup>1</sup> women,<sup>2</sup> people of color,<sup>3</sup> and other underrepresented inventors<sup>4</sup> face in the patent approval process at the U.S. Patent and Trademark Office (USPTO or the Office). These challenges present these inventors with a significant disadvantage compared to Big Tech, Big Pharma, and other giant corporations.<sup>5</sup>

Small entities who submit patent applications have experienced lower success rates than larger companies,<sup>6</sup> women inventors have been less likely to have their applications accepted than men,<sup>7</sup> and minority inventors are less likely to receive granted patents than white inventors.<sup>8</sup> While the country's patent system is meant to encourage innovation, the geographic, socioeconomic, racial, and gender-based gaps in access to obtaining patent protections are

<sup>1</sup> Emory Law Journal, "The Inequalities of Innovation," Colleen V. Chien, April 9, 2018.

<sup>2</sup> [https://www.uspto.gov/ip/patents/etd/submitting\\_applications](https://www.uspto.gov/ip/patents/etd/submitting_applications), id#31127883.

<sup>3</sup> Written testimony of Barbara Condit to the U.S. Senate Judiciary Subcommittee on Intellectual Property, April 3, 2019. <https://www.senate.gov/imo/media/doc/record/2019/04/03/20190403testimonybarbaracondit>

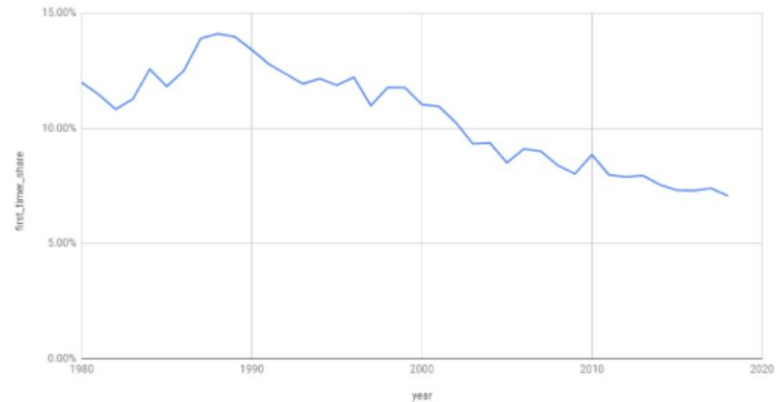
<sup>4</sup> Institute for Women's Policy Research, "Tackling the Gender and Racial Patenting Gap to Drive Innovation," Elyse Shaw and Haile Marston, July 19, 2021. [https://www.iwpr.org/wp-content/uploads/2021/07/19/tackling-the-gender-and-racial-patenting-gap\\_FINAL18.pdf](https://www.iwpr.org/wp-content/uploads/2021/07/19/tackling-the-gender-and-racial-patenting-gap_FINAL18.pdf); American Bar Association, "The Colorblind Patent System and Black Inventors," Shontavia Jackson Johnson, March 2019. [https://www.americanbar.org/groups/intellectual\\_property/publications/loads/2018-19/march-april/colorblind-patent-system-black-inventors/](https://www.americanbar.org/groups/intellectual_property/publications/loads/2018-19/march-april/colorblind-patent-system-black-inventors/)

<sup>5</sup> Technology and Innovation, "Closing Diversity Gaps in Innovation: Gender, Race, and Income Disparities in Patenting and Commercialization of Inventions," Holly Fechner and Matthew S. Shapanka, June 1, 2018. [https://www.csis.org/media/files/corporate/publications/2018/06/closing\\_diversity\\_gaps\\_in\\_innovation\\_gender\\_race\\_and\\_income\\_disparities\\_in\\_patenting\\_and\\_commercialization\\_of\\_inventions.pdf](https://www.csis.org/media/files/corporate/publications/2018/06/closing_diversity_gaps_in_innovation_gender_race_and_income_disparities_in_patenting_and_commercialization_of_inventions.pdf)

<sup>6</sup> Bloomberg Law, "Don't Let Big Tech Sabotage U.S. Innovators' Protections," Paul R. Michel and Chris Israel, April 22, 2022. <https://news.bloomberglaw.com/ip-law/dont-let-big-tech-sabotage-us-innovators-protections>

<sup>7</sup> Patentlyo, "Guest post: Advancing Inclusive Innovation and Entrepreneurship through the Patent System," Colleen Chien, Jonathan Collins, Zachary J. Daly, and Rodney Swartz, November 4, 2020. <https://patentlyo.com/patent/2020/11/advancing-innovation-entrepreneurship.html>

## The Share of Patents to New Entrants



C. Chien, The Inequalities of Innovation, Emory L. Rev. 2022

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## Small entities make more mistakes

Figure 9A: 112(b) Rejections in Office Actions

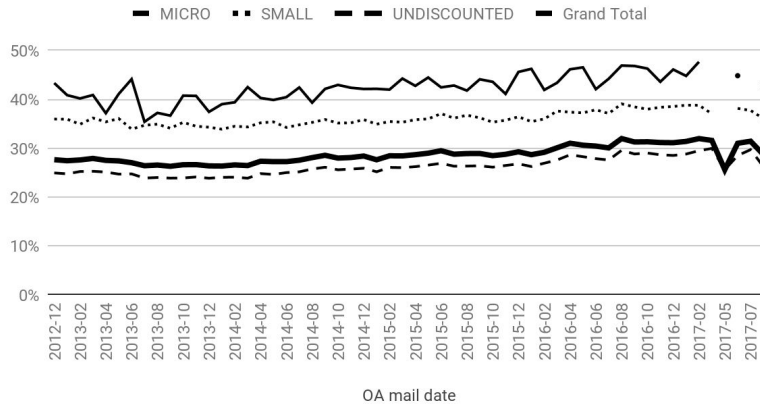
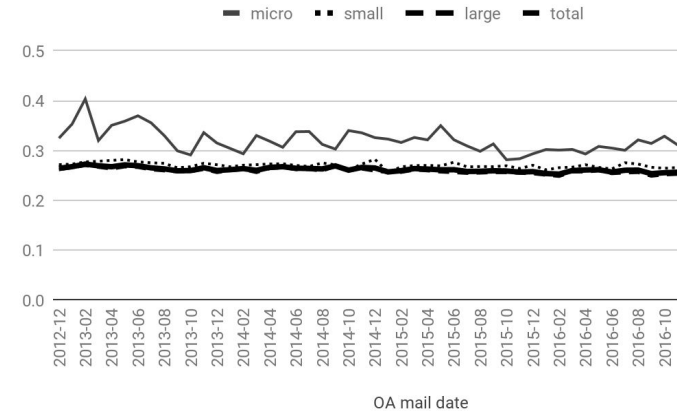


Figure 9B: Objections in Office Actions



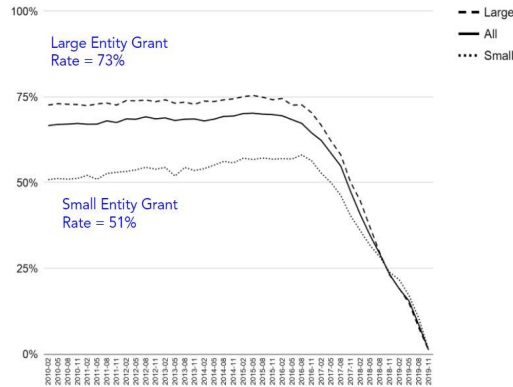
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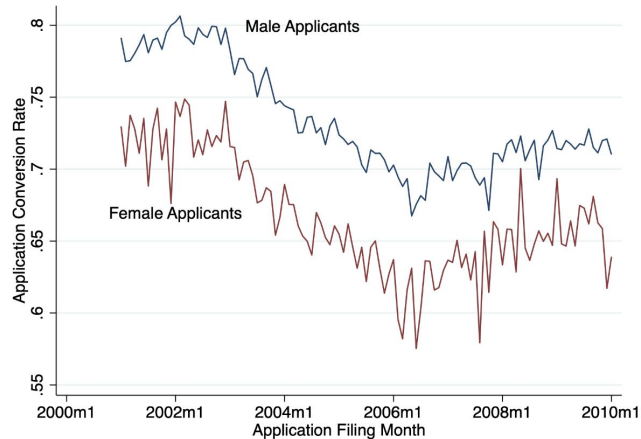
Women and small entities have lower grant rates



Fig. 1 Patent Grant Rates by Entity Size



Applications with female authors have a lower grant rate



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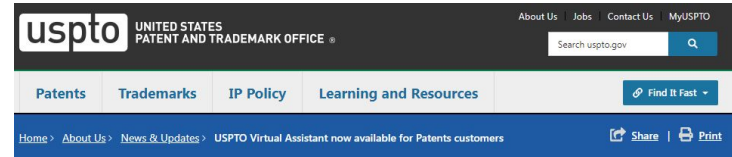
➔ AI has the *potential* to **increase patent quality / level the playing field** and make it more efficient

## At the PTO

### Patent Alert



Learn how to file DOCX documents in your applications using Patent Center



## USPTO Virtual Assistant now available for Patents customers

Use the expanded tool on select Patents pages and submit feedback  
October 10, 2023

Last week, we launched the USPTO Virtual Assistant as a feature on select Patents webpages. This [expansion from trademarks](#) to patents-related content continues our efforts to enhance our customer service and increase access to our resources.



# Use of AI by Patent Prosecutors - Preliminary Survey Results

- Conducted survey survey twice, once in 2022 (~300 respondents) and now\* (n=148)
- Most common uses: prediction, prior art, quality controls, drafting specifications
- Most common tools: Internally built tools, followed by AppColl, Claimmaster, ChatGPT
- Tools are being used by many, but not all

\* Still collecting responses

# AI/Automation at the Patent Office

## Patent specification quality tools: ex Patent Bots

FIG. 14. Numbering Feature

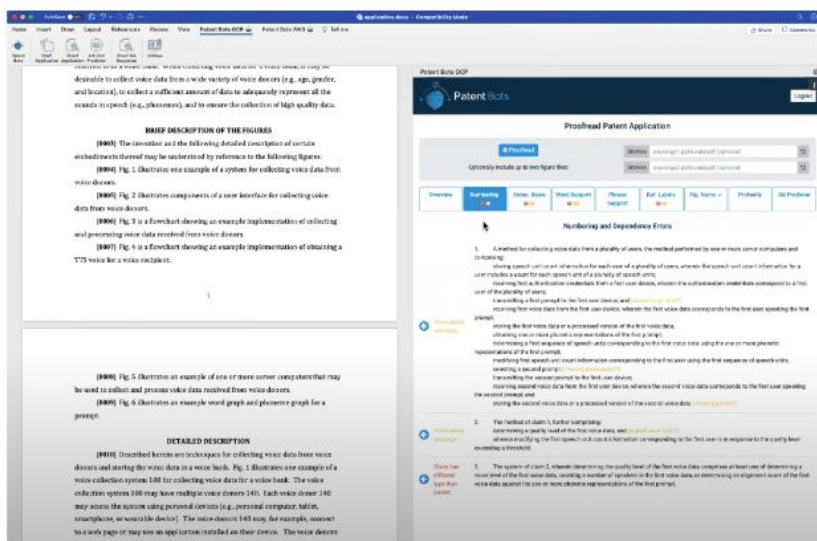
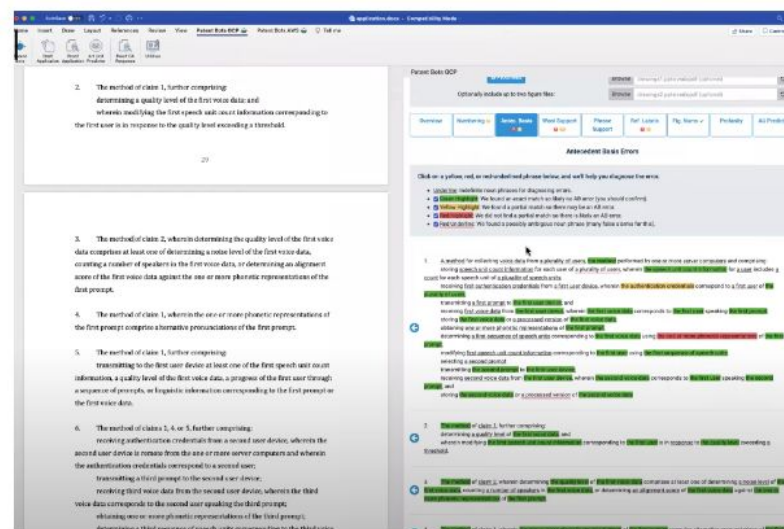
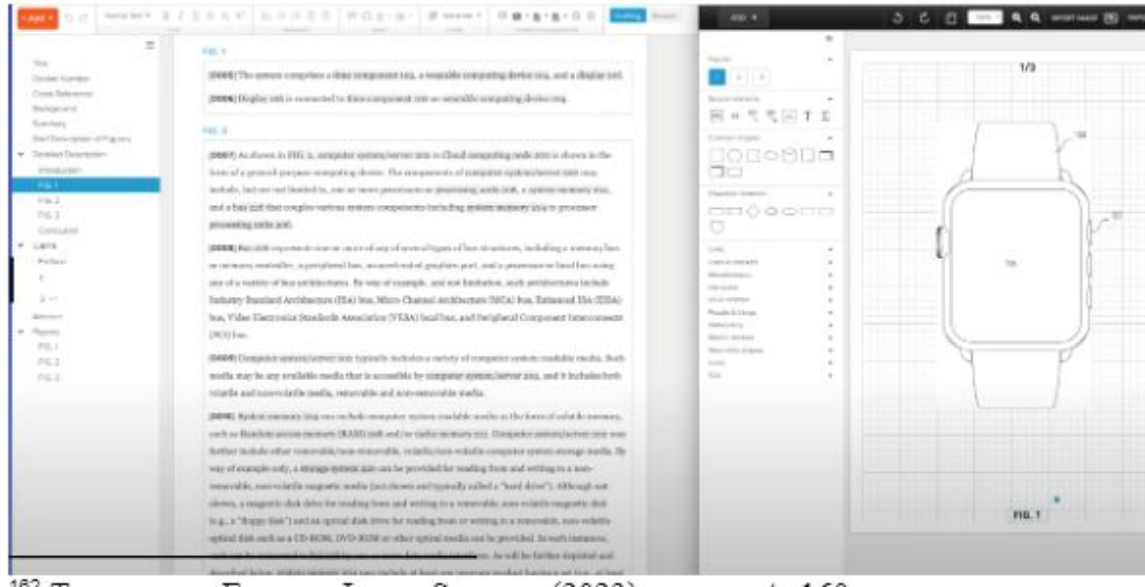


FIGURE 15. Antecedent Basis Feature



# How much are patent prosecutors using

FIG. 17. Rowan Patent Display and Template-based Drafting



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# What should the PTO do to guide the public? Less than 50% support for disclosure of use of AI or AI rules

Which of the following statements do you tend to agree with? (select all that apply) 63 ⓘ

Q14 - Which of the following statements do you tend to agree with? (select all that apply)	Percentage
The USPTO should promulgate rules regulating the use of AI in preparing specification and office action responses.	35%
The USPTO should work to make AI/automation tools more accessible to all members of the bar.	44%
The USPTO should be exempted from releasing details on how it uses algorithms to examine patents to prevent applicants from gaming.	17%
The USPTO should require some disclosure of the use of AI/automation tools in prosecution	48%
I don't think the USPTO should regulate the use of AI in patent prosecution	43%