

**UNITED STATES
PATENT AND TRADEMARK OFFICE**



Artificial intelligence for patents

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AI as a strategic focus

- 2018-2022 USPTO Strategic Plan:
 - Optimize development and delivery of information technology tools, including artificial intelligence and machine learning, for internal users of patent systems to ensure that they have the tools they need for a thorough search and examination.*

* Goal I: Optimize patent quality and timeliness; Objective 3: Foster innovation through business effectiveness

Challenges with AI

- AI is trained, not pre-programmed
- Performance of AI depends on quality data
- Models may not be generalizable
- Perception of a “black box”
- Expense of intellectual validation
- Models may require continuous updates

Strategy for reliable AI

- Curation of high-quality data is critical
- Apply solutions for validation and refinement
- Expand practical knowledge in AI
 - USPTO IT professionals must “do AI well”
 - Patent and Trademark businesses must “think in AI”
- Extensive outreach and market research
- AI is for augmentation
- Explainable AI

AI priorities in FY20

Operational goal: leverage AI to improve effectiveness of examiners and the agency

- AI for enhanced search
 - Awareness campaign for AI-based features
 - Investigate new AI for search and image recognition
- CPC auto-classification
 - Full CPC classification
 - C* Detection



Thank you!

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