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## AI Manipulation at the USPTO: The Patent Bargain the Public Did Not Ask For

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## I. INTRODUCTION

In December 2020, the United States Patent and Trademark Office (USPTO) fully integrated artificial intelligence (AI) into its classification system process.<sup>1</sup> The use of AI exacerbates an ongoing problem: that the USPTO and its AI process face manipulation.

As a part of the classification process, the USPTO's AI algorithm sorts patent applications into different classifications.<sup>2</sup> Different classifications allow the assignment of each patent application to an examiner and art unit knowledgeable in that application's scientific area.<sup>3</sup> However, not all examiners or art units are created equal. A patent application that can be reasonably assigned to several different art units or to one of several examiners in a particular art unit can have a vast array of different outcomes.<sup>4</sup> On one end, an art unit can have an overall allowance rate of 94 percent and a timeline of nine months until allowance.<sup>5</sup> In contrast, another art unit that the same patent application could be assigned to can have an allowance rate of 13 percent and a timeline to an allowance of two years.<sup>6</sup> Such inconsistencies have allowed for targeted drafting of applications. Targeted drafting includes changing specific language within an

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<sup>1</sup> Drew Hirshfeld, *Artificial Intelligence Tools at the USPTO*, USPTO: DIRECTOR'S BLOG: THE LATEST FROM USPTO LEADERSHIP (Mar. 18, 2021), <https://www.uspto.gov/blog/director/entry/artificial-intelligence-tools-at-the>.

<sup>2</sup> *Patent Classification*, USPTO, <https://www.uspto.gov/patents/search/classification-standards-and-development> (last modified Nov. 7, 2023, 2:22 PM).

<sup>3</sup> See *Classes Arranged by Art Unit*, USPTO (Nov. 2022), <https://www.uspto.gov/sites/default/files/documents/caau.pdf>; *TC 3700 Management Roster*, USPTO, <https://www.uspto.gov/patents/contact-patents/tc-3700-management-roster> (last modified Nov. 6, 2023, 1:36 PM); *infra* Part II.C.

<sup>4</sup> Megan McLoughlin, *A Better Way to File Patent Applications*, IPWATCHDOG (Apr. 14, 2016, 1:13 PM), <https://ipwatchdog.com/2016/04/14/better-way-file-patent-applications/id=68302/>; Gene Quinn, *E-Commerce Art Units: Where Patent Applications Go to Die*, IPWATCHDOG (July 14, 2016, 8:15 AM), <https://ipwatchdog.com/2016/07/14/where-patent-applications-go-die/id=70913/>; see *infra* Part III.A.

<sup>5</sup> See, e.g., Quinn, *supra* note 4; Austin Underhill, *These Are the 20 Hardest and Easiest Art Units*, IPWATCHDOG (May 21, 2015, 9:30 AM), <https://ipwatchdog.com/2015/05/21/hardest-easiest-art-units/id=57864/>; *Art Unit 2827*, PATENT BOTS, <https://www.patentbots.com/stats/art-unit/2827> (last accessed Nov. 20, 2023) (showing Art Unit 2827 with an average allowance rate of 94 percent after 3 years, and showing that on average it takes less than 9 months for three fourths of all eventually granted applications within Art Unit 2827 to become granted); *supra* Part III.A.

<sup>6</sup> See, e.g., Quinn, *supra* note 4; Underhill, *supra* note 5; *Art Unit 3689*, PATENT BOTS, <https://www.patentbots.com/stats/art-unit/3689> (last accessed Nov. 20, 2023) (showing Art Unit 3689 with an average allowance rate of 13 percent after 3 years, and showing that on average it takes more than 20 months for three fourths of all eventually granted applications within Art Unit 3689 to become granted); *supra* Part III.A.

application, which can manipulate the USPTO's AI to assign a desirable art unit and examiner. This is effectively a type of forum shopping. The forum shopping of patent applications can have many negative effects, including the public being taken advantage of in terms of their fair share of the constitutional patent bargain.<sup>7</sup>

Part II discusses an overview of patent law, the patent application process, the classification process at the USPTO, the parts of a patent, and patent drafting tools. Part III discusses the problems that can arise from the USPTO's AI classification system. Specifically, this Part addresses the wide variance of outcomes different art units can have, the difficulty in application reassignment, the AI's manipulability, the ethical concerns of target drafting, and target drafting's equivalence to forum shopping. Finally, Part IV considers several possible solutions to resolve the problems specified, including removing publicly available data that allows for patent drafting tools to function, lowering the difficulty for an applicant to request application reassignment successfully, and changing the patent application process at the USPTO to allow for more consistent and fair results.

## **II. HISTORICAL CONTEXT AND PATENT OVERVIEW**

### **A. Patent Law**

A patent is a bargained-for exchange wherein an inventor receives, for a limited time, a monopoly on their invention in exchange for the disclosure and enablement of the invention, which will eventually be dedicated to the public once the patent expires.<sup>8</sup> This bargained-for exchange originates as one of the enumerated powers the United States Constitution granted to

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<sup>7</sup> See U.S. CONST. art. I, § 8, cl. 8.

<sup>8</sup> See, e.g., *Amgen Inc. v. Sanofi*, 143 S. Ct. 1243, 1245 (2023); *Bonito Boats v. Thunder Craft Boats*, 489 U.S. 141, 150-51 (1989).

Congress: “To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”<sup>9</sup>

Specifically, a patent grants the owner “the right to exclude others from making, using, offering for sale, selling, or importing” the invention claimed in the patent for twenty years.<sup>10</sup> A patent does not grant the owner “the right to make, use, offer for sale, sell, or import the claimed invention.”<sup>11</sup> Congress carefully crafted this patent bargain to encourage the disclosure of new, useful, and nonobvious technology to the public in return for finite exclusivity rights.<sup>12</sup> Under the patent quid pro quo, the “immediate disclosure is not the objective of, but is *exacted from*, the patentee. It is the price paid for the exclusivity secured.”<sup>13</sup>

Section 101 of the Patent Act defines four categories of subject matter that make an invention patent eligible.<sup>14</sup> An applicant who “invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent.”<sup>15</sup> If the claims of an application fall within one of the four statutory categories of Section 101, those claims may be patentable if the applicant meets the other requirements of the Patent Act.<sup>16</sup> In addition to the four eligible categories, the Supreme Court has held an important implicit exception that “laws of nature, natural phenomena, and abstract ideas are not patentable.”<sup>17</sup> A new material or plant found in the wild is not patent eligible, and

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<sup>9</sup> U.S. CONST. art. I, § 8, cl. 8.

<sup>10</sup> 35 U.S.C. § 154(a)(1)-(2) (stating that utility patents are granted a term of 20 years); *see also* 35 U.S.C. § 173 (stating that design patents are granted a term of 15 years); U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 1502.01 (9th ed., rev. 7, 2022) (distinguishing between design and utility patents).

<sup>11</sup> U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 301(I) (9th ed., rev. 7, 2022).

<sup>12</sup> *Bonito Boats*, 489 U.S. at 150-5.

<sup>13</sup> *Eldred v. Ashcroft*, 537 U.S. 186, 216 (2003) (emphasis added).

<sup>14</sup> MARTIN J. ADELMAN, ET AL., CASES AND MATERIALS ON PATENT LAW 67 (4th ed. 2014).

<sup>15</sup> 35 U.S.C. § 101.

<sup>16</sup> ADELMAN, ET AL., *supra* note 14, at 67.

<sup>17</sup> *See, e.g., Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014); *Bilski v. Kappos*, 561 U.S. 593, 601-02 (2010); *Diamond v. Diehr*, 450 U.S. 175, 185 (1981).

neither is a mathematical equation nor the law of gravity.<sup>18</sup> As a part of a two-step test laid out by the Supreme Court in the *Alice* decision, courts must first determine whether an application falls within one of the patent-ineligible judicial exceptions.<sup>19</sup> If so, courts then look to see whether the application has “significantly more,” whether there is an “inventive concept.”<sup>20</sup>

Recently, Section 101 has been in controversy.<sup>21</sup> Historically, both granted patents and case law suggested that “anything under the sun” could be patented.<sup>22</sup> Among some of the controversial areas, the USPTO granted patents on included business methods, computer software, human genes, and tax strategies.<sup>23</sup> In a myriad of recent rulings, the Supreme Court has swung the pendulum towards limiting what is patent eligible under Section 101.<sup>24</sup> On the biological front, the Court held in *Myriad*, that the discovery of gene sequences correlated with cancer, while groundbreaking, innovative, and brilliant, could not itself be patent eligible.<sup>25</sup> In *Alice*, the Court held that a computer-implemented scheme for mitigating settlement risk was an abstract idea and not patent eligible.<sup>26</sup> Similarly, the Court held in *Bilski*, that a series of steps on how to hedge risk was an abstract idea.<sup>27</sup> Both of these cases signaled more difficult times to come for patent eligibility of business methods and software-related applications.<sup>28</sup>

The *Alice* two-step test has effectively narrowed the scope of patent eligibility with its ambiguous language and has made it more difficult to predict how the standard would apply

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<sup>18</sup> *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980).

<sup>19</sup> *Alice*, 573 U.S. at 217-18; *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 77 (2012).

<sup>20</sup> *Alice*, 573 U.S. at 217-18; *Mayo*, 566 U.S. at 77.

<sup>21</sup> ADELMAN, ET AL., *supra* note 14, at 67.

<sup>22</sup> *Id.*; *Chakrabarty*, 447 U.S. at 309.

<sup>23</sup> ADELMAN, ET AL., *supra* note 14, at 67.

<sup>24</sup> *Id.*

<sup>25</sup> *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 591 (2013) (but holding the cDNA from mRNA was patent eligible).

<sup>26</sup> *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 212 (2014).

<sup>27</sup> *Bilski v. Kappos*, 561 U.S. 593, 611-12 (2010).

<sup>28</sup> ADELMAN, ET AL., *supra* note 14, at 129-30.

regarding “abstract ideas.”<sup>29</sup> A report published by USPTO’s Chief Economist, Dr. Andrew A. Toole, found that the amount of Section 101 rejections at the USPTO increased significantly as well as the amount of uncertainty.<sup>30</sup> Specifically, in the eighteen months after *Alice*, the likelihood of receiving a Section 101 rejection in “*Alice*-affected” areas increased by 31 percent, and the degree of uncertainty of examination, measured by variability, rose by 26 percent.<sup>31</sup> The more uneven the spread of Section 101 rejections from examiners within a specific art unit or technology, the greater the level of uncertainty.<sup>32</sup>

Two specific pieces of guidance from the USPTO helped to mitigate and correct the post-*Alice* effects: a 2018 memorandum (the “Berkheimer memorandum”) and the 2019 revised guidance on subject matter eligibility (the “2019 PEG”).<sup>33</sup> Prior to the Berkheimer memorandum, instructions guided examiners to find that an element “was a well-understood, routine, conventional activity when the examiner could readily conclude that the element was widely prevalent or in common use in the relevant industry.”<sup>34</sup> However, examiners were not required to base such a finding with support of any factual evidence.<sup>35</sup> The Berkheimer memorandum changed the guidance to require examiners to make a factual determination as to whether the

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<sup>29</sup> See, e.g., USPTO, PATENT ELIGIBLE SUBJECT MATTER: REPORT ON VIEWS AND RECOMMENDATIONS FROM THE PUBLIC 29-30 (July 2017), [https://www.uspto.gov/sites/default/files/documents/101-Report\\_FINAL.pdf](https://www.uspto.gov/sites/default/files/documents/101-Report_FINAL.pdf); KEVIN J. HICKEY, CONG. RSCH. SERV., R45918, PATENT-ELIGIBLE SUBJECT MATTER REFORM IN THE 116TH CONGRESS 2-3 (Sept. 2019); ANDREW A. TOOLE & NICHOLAS A. PAIROLERO, ADJUSTING TO ALICE UPSTO PATENT EXAMINATION OUTCOMES AFTER ALICE CORP. V. CLS BANK INTERNATIONAL 2 (Apr. 2020), [https://www.uspto.gov/sites/default/files/documents/OCE-DH\\_AdjustingtoAlice.pdf](https://www.uspto.gov/sites/default/files/documents/OCE-DH_AdjustingtoAlice.pdf).

<sup>30</sup> TOOLE & PAIROLERO, *supra* note 29, at 1.

<sup>31</sup> *Id.* at 3-4.

<sup>32</sup> *Id.* at 2.

<sup>33</sup> *Id.* at 5-6; U.S. PATENT & TRADEMARK OFFICE, CHANGES IN EXAMINATION PROCEDURE PERTAINING TO SUBJECT MATTER ELIGIBILITY, RECENT SUBJECT MATTER ELIGIBILITY DECISION (BERKHEIMER V. HP, INC.) (Apr. 19, 2018), <https://www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.PDF> [hereinafter “BERKHEIMER MEMORANDUM”]; 2019 Revised Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019).

<sup>34</sup> TOOLE & PAIROLERO, *supra* note 29, at 5; see U.S. PATENT & TRADEMARK OFFICE, RECENT SUBJECT MATTER ELIGIBILITY DECISION: VANDA PHARMACEUTICALS INC. V. WEST-WARD PHARMACEUTICALS (June 7, 2018), <https://www.uspto.gov/sites/default/files/documents/memo-vanda-20180607.PDF>.

<sup>35</sup> TOOLE & PAIROLERO, *supra* note 29, at 6.

patent application’s claim elements recite commonly and routinely used ideas.<sup>36</sup> The 2019 PEG further clarified the area of law by distinguishing a claim directed to an abstract idea from a claim that includes an abstract idea *but integrates the abstract idea into a practical application*.<sup>37</sup> Such guidance synthesized the law by explicitly defining that abstract ideas can be mathematical concepts, methods of organizing human activity, and mental processes.<sup>38</sup> Furthermore, the guidance also emphasized that under Section 101, an examiner should not reject a claim that recites an abstract idea if the application “as a whole integrates the abstract idea into a practical application.”<sup>39</sup>

While the recent USPTO guidance has helped reduce the acceleration of Section 101 rejections and uncertainty, *Alice*-affected art units still have significantly higher Section 101 rejection rates and uncertainty than their counterparts.<sup>40</sup> Dr. Toole’s report shows that applications categorized as *Alice*-affected, which were those litigated for abstract ideas, had around a four times higher rejection rate of Section 101 than other categorized applications.<sup>41</sup> The discrepancy in Section 101 rejections is only a part of a bigger picture that the classification of a patent application in certain art units can have vastly different rejection outcomes (as to Section 101 and other areas of law) and the degree of uncertainty.<sup>42</sup>

## **B. Patent Prosecution at the USPTO**

In order to obtain a patent, an inventor’s patent application must go through the “patent prosecution” process at the USPTO.<sup>43</sup> Prior to filing, an inventor must choose which type of

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<sup>36</sup> *Id.*

<sup>37</sup> *Id.* (emphasis added).

<sup>38</sup> *Id.*

<sup>39</sup> *Id.*

<sup>40</sup> *See id.* at 3-6.

<sup>41</sup> *Id.* at 3-6, 9.

<sup>42</sup> *See infra* Part III.A.

<sup>43</sup> ADELMAN, ET AL., *supra* note 14, at 2; *see also* 35 U.S.C. § 2 (making the USPTO responsible for granting and issuing patents).

patent application to file.<sup>44</sup> A utility patent is the most common patent application submitted to the USPTO, which the USPTO may grant to anyone who “invents or discovers any new and useful process, machine, article of manufacture, or composition of matter.”<sup>45</sup> Anyone who “invents any new, original and ornamental design” may be granted a design patent on the aesthetic appearance of an object.<sup>46</sup> Lastly, the USPTO may grant a plant patent to anyone who “invents or discovers and asexually reproduces any distinct and new variety of plant.”<sup>47</sup> This Paper will only discuss utility patents.

When filing a utility patent application, an inventor has the choice between filing the application as a provisional or nonprovisional.<sup>48</sup> A provisional application provides a prompt and cost-effective means for securing a filing date that one can later assert in a nonprovisional application.<sup>49</sup> While a provisional application undergoes no examination and does not directly result in a patent, timely filing dates are important to patent applications filed in the United States as it is a first-inventor-to-file system.<sup>50</sup> An application can serve as “prior art” to any other patent application that has a later effective filing date than the earlier application, thus preventing others from obtaining a patent.<sup>51</sup> While not examined, a provisional application is prior art to the inventor after one year.<sup>52</sup> A non-provisional application following a provisional application is necessary to obtain a utility patent (although a non-provisional application may be filed directly

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<sup>44</sup> *Patent Process Overview Step 1: Get Ready to Apply*, USPTO, <https://www.uspto.gov/patents/basics/patent-process-overview#step1> (last modified Apr. 28, 2023, 8:03 AM).

<sup>45</sup> *Id.* (citing 35 U.S.C. § 101).

<sup>46</sup> 35 U.S.C. § 171(a).

<sup>47</sup> 35 U.S.C. § 161(a).

<sup>48</sup> *Patent Process Overview Step 2: File Your Application*, USPTO, <https://www.uspto.gov/patents/basics/patent-process-overview#step2> (last modified Apr. 28, 2023, 8:03 AM).

<sup>49</sup> *Id.*

<sup>50</sup> *First Inventor to File (FITF) Resources*, USPTO (Feb. 5, 2016, 11:01 AM), <https://www.uspto.gov/patents/first-inventor-file-fitf-resources>.

<sup>51</sup> *See* 35 U.S.C. § 102.

<sup>52</sup> 35 U.S.C. § 102(b)(1)(A).



without filing a provisional application).<sup>53</sup> A patent examiner examines non-provisional patent applications, which may lead to a patent if the application fulfills all the necessary criteria for patentability.<sup>54</sup>

Once an applicant files an application, the USPTO reviews the application for formalities and completeness.<sup>55</sup> If an application is incomplete or has informalities, the USPTO may send the applicant a Notice of Missing Parts or a Notice of Incomplete Application.<sup>56</sup> Failure to rectify any omissions within the specified timeframe results in the application being abandoned.<sup>57</sup> For nonprovisional applications with no outstanding issues, the application proceeds to classification, in which it is assigned to an art unit and patent examiner who determines patentability.<sup>58</sup>

Once a patent application has been classified and assigned to a specific examiner and art unit, examination begins.<sup>59</sup> The examination of the application consists of a prior art search to determine whether the invention is new, useful, and nonobvious, and whether the invention meets all other statutory requirements and rules of practice.<sup>60</sup> If the application fails to meet all the statutory requirements and rules of practice, the patent examiner explains their decision in a written “Office action” communicated to the applicant.<sup>61</sup> An Office action may stipulate rejections based on merit, such as to subject matter eligibility (35 U.S.C. § 101), novelty (35 U.S.C. § 102), nonobviousness (35 U.S.C. § 103), and lack of written description, enablement, or

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<sup>53</sup> *Patent Process Overview Step 2: File Your Application*, *supra* note 48.

<sup>54</sup> *Id.*

<sup>55</sup> *Id.*

<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

<sup>58</sup> *Id.*; *see infra* Part II.C.

<sup>59</sup> *Patent Process Overview Step 3: Application Prosecution*, USPTO, <https://www.uspto.gov/patents/basics/patent-process-overview#step3> (last modified Apr. 28, 2023, 8:03 AM).

<sup>60</sup> *Id.*

<sup>61</sup> *Id.*

indefiniteness (35 U.S.C. § 112).<sup>62</sup> An Office action may also stipulate objections based on formalities, such as, but not limited to, a lack of clear solid black lines in the drawings or other drawing-related issues (37 C.F.R. § 1.84), typographical errors in the specification or claims, or title objections.<sup>63</sup> Office actions can comprise of two different forms: a non-final Office action and a final Office action.<sup>64</sup> Initially, a patent examiner will issue a non-final Office action.<sup>65</sup>

Once an applicant receives a non-final Office action, the applicant is responsible for timely filing a reply to all objections and rejections “in order to be entitled for reconsideration or further examination.”<sup>66</sup> Within the response, the applicant must point out alleged errors within the Office action and must provide arguments for every objection and rejection.<sup>67</sup> An applicant may also amend an application in support of a response but may not add any new matter to the application.<sup>68</sup> Depending on the amendments made to the claims, it may narrow the scope of the claims and, if granted, limit the patent’s exclusionary rights.<sup>69</sup>

Following a response to a non-final Office action, the patent examiner will review the response and consider whether the application meets the necessary requirements.<sup>70</sup> If the examiner still believes that the application does not meet all the necessary requirements, the examiner will provide their explanation in a second office action.<sup>71</sup> The second office action

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<sup>62</sup> *Id.*; see 37 C.F.R. § 1.104; see also U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 706.01 (9th ed., rev. 7, 2022) (stating that a rejection involves merits and is subject to review by the Patent Trial and Appeal Board).

<sup>63</sup> *Patent Process Overview Step 3: Application Prosecution*, supra note 59; see also U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 706.01 (9th ed., rev. 7, 2022) (stating that an objection does not involve merits and may only be reviewed by way of petition to the USPTO Director).

<sup>64</sup> *Responding to Office Actions*, USPTO, <https://www.uspto.gov/patents/maintain/responding-office-actions> (last modified Nov. 1, 2023, 10:21 AM).

<sup>65</sup> *Patent Process Overview Step 3: Application Prosecution*, supra note 59.

<sup>66</sup> 37 C.F.R. § 1.111.

<sup>67</sup> 37 C.F.R. § 1.111(b).

<sup>68</sup> 37 C.F.R. § 1.121; see 37 C.F.R. § 1.111(b)-(c).

<sup>69</sup> *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 736-37 (2002).

<sup>70</sup> *Patent Process Overview Step 3: Application Prosecution*, supra note 59.

<sup>71</sup> *Id.*

could either be final or non-final, depending on whether there is a clear issue between examiner and applicant and whether “the examiner introduces a new ground of rejection” that is not necessitated by the applicant’s amendments.<sup>72</sup> If the action is final, the applicant can file a request for continued examination (RCE) (37 C.F.R. § 1.114), reply to Office action with specific amendments to the application (37 C.F.R. § 1.116), or file an appeal to the Patent Trial and Appeal Board (PTAB).<sup>73</sup> An applicant’s success rate at the PTAB has consistently been around 40 percent, with examiners affirmed around 60 percent (reversed around 30 percent, and partially reversed around 10 percent of the time).<sup>74</sup>

If an applicant wishes to continue prosecution of their application and remove the finality of any Office action, they can file an RCE.<sup>75</sup> RCEs play a substantial role in prosecution. As per USPTO statistics, around 23 percent of applications pending examination include the filing of an RCE.<sup>76</sup> An applicant may also file a continuation application.<sup>77</sup> Unlike an RCE, a continuation is a new application assigned its own application serial number, which claims priority to the parent application but does not include any new matter.<sup>78</sup> Continuations are helpful to an applicant as they can offer multiple patents for different, complementary patentable material within a parent

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<sup>72</sup> See U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 706.07 (9th ed., rev. 7, 2022) (stating that “examiners should not make hasty and ill-considered final rejections.”); U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 706.07(a) (9th ed., rev. 7, 2022).

<sup>73</sup> 37 C.F.R. § 1.113; see *Patent Process Overview Step 3: Application Prosecution*, supra note 59.

<sup>74</sup> *Appeal and Interference Statistics Archive*, USPTO, <https://www.uspto.gov/patents/ptab/appeals-and-interferences-statistics-page> (last modified Nov. 22, 2023, 1:04 PM) (click on any fiscal year, e.g., “FY 2023” then select any month, e.g., “September 2023” then see page 6).

<sup>75</sup> 37 C.F.R. § 1.114.

<sup>76</sup> *Patents Data, at a Glance October 2023*, USPTO, <https://www.uspto.gov/dashboard/patents/> (last modified Dec. 1, 2023, 11:29 AM) (click “Download the Excel spreadsheet, viewable in Microsoft Excel, Google Docs and other spreadsheet software”) (by taking a summation of “serialized filings” and “RCE filings” between Jan. 2021 and Sept. 2023, then dividing RCE filings by serialized filings and RCE filings resulting in a percentage of 23.36).

<sup>77</sup> 37 C.F.R. § 1.78.

<sup>78</sup> U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 201.07 (9th ed., rev. 7, 2022).

application.<sup>79</sup> They are also useful in retaining a favorable examiner or art unit, as the USPTO's classification algorithm almost always assigns continuations to the same examiner as the parent.<sup>80</sup>

Unless the applicant resolves all grounds of objections and rejections, the applicant amends the application to a state of allowance, or the applicant otherwise pauses the statutory response period, the application becomes abandoned after six months from the mailing date of the Office action.<sup>81</sup> During any point of the examination process, including before or after any Office action, the examiner may determine that an application meets all statutory requirements and rules of practice and provide a Notice of Allowance.<sup>82</sup> Following the necessary payments and documentation in response to a Notice of Allowance, the applicant is issued a patent.<sup>83</sup>

After patent issuance, a patent is enforceable for a period of up to twenty years from its earliest effective filing date, which includes the date of any earlier non-provisional applications to which it claims priority.<sup>84</sup> "A patent grant confers 'the right to exclude others from making,

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<sup>79</sup> See, e.g., *id.*; Chen Chen, *Using Continuation Applications Strategically*, COOLEY GO, <https://www.cooleygo.com/using-continuation-applications-strategically/> (last reviewed Feb. 8, 2023); *Continuation Patent Applications: 10 Reasons You Should Consider Filing*, NUTTER (May 1, 2017), <https://www.nutter.com/ip-law-bulletin/continuation-patent-applications-10-reasons-you-should-file>.

<sup>80</sup> See, e.g., Schwegman Lundberg & Woessner, P.A., *USPTO's New Process for Docketing Patent Applications to Examiners, and Claim Drafting Strategy*, YOUTUBE, 57:57-58:34 (Oct. 21, 2022), <https://www.youtube.com/watch?v=lc8CZYOGHu4> (previous USPTO Director Drew Hirshfeld stating that examiners tend to keep continuations); Patents Bots, *Art Unit Prediction: Get the Right Examiner for Your Patent*, YOUTUBE, 51:26-51:41 (May 25, 2022), [https://www.youtube.com/watch?v=z\\_9FzPAxqNw](https://www.youtube.com/watch?v=z_9FzPAxqNw) (suggesting that data shows the odds are around 90 percent for a continuation to be assigned to the same examiner).

<sup>81</sup> *Patent Process Overview Step 3: Application Prosecution*, *supra* note 59 (citing U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 711 (9th ed., rev. 7, 2022)).

<sup>82</sup> *Patent Process Overview Step 4: Receive Your Patent*, USPTO, <https://www.uspto.gov/patents/basics/patent-process-overview#step4> (last modified Apr. 28, 2023, 8:03 AM); see 37 C.F.R. § 1.311.

<sup>83</sup> *Patent Process Overview Step 4: Receive Your Patent*, *supra* note 82; see U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 1309 (9th ed., rev. 7, 2022); see also 35 U.S.C. § 2 (assigning responsibility to the USPTO to grant and issue patents); 35 U.S.C. § 153 (stating that patents shall be issued under the seal of the USPTO).

<sup>84</sup> *Patent Process Overview Step 4: Receive Your Patent*, *supra* note 82; see 35 U.S.C. § 119(e); § 120; § 154(a)(2).

using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States.”<sup>85</sup>

### C. Classification Process at the USPTO

The USPTO classifies patent applications into different “technology centers” (TCs) that oversee different scientific areas.<sup>86</sup> Each TC comprises of several different “group art units” (GAUs), which further divide types of scientific areas within the TC.<sup>87</sup> Within GAUs, there are specific art units that further differentiate scientific areas.<sup>88</sup> Finally, within these art units, specific patent examiners can be found who specialize in the specific area that best covers a patent application.<sup>89</sup> As an example, TC 3700 includes Mechanical Engineering, Manufacturing, and Products.<sup>90</sup> Within TC 3700, there are multiple GAUs such as GAU 3740 Thermal & Combustion Technology, Motive & Fluid Power Systems.<sup>91</sup> GAU 3740 further comprises of several art units, such as 3741 to 3749.<sup>92</sup> Each art unit has distinctive patent examiners and classification tags that help determine which art unit and examiner will handle an application.<sup>93</sup> For example, using the United States Patent Classification (USPC) system, Art Unit 3741 has class tags 60 (power plants), 137 (fluid handling), and 239 (fluid sprinkling, spraying, and diffusing), whereas Art Unit 3748 has class tags 60, 123 (internal-combustion engines), and 418

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<sup>85</sup>*Managing a Patent*, USPTO, <https://www.uspto.gov/patents/basics/manage> (last modified May 2, 2023, 2:16 PM) (citing 35 U.S.C. § 154(a)(1)).

<sup>86</sup> *Patent Process Overview Step 3: Application Prosecution*, *supra* note 59.

<sup>87</sup> *See, e.g., TC 2100 Management Roster*, USPTO, <https://www.uspto.gov/patents/contact-patents/tc-2100-management-roster> (last modified Nov. 21, 2023, 10:40 AM); *TC 3600 Management Roster*, USPTO, <https://www.uspto.gov/patents/contact-patents/tc-3600-management-roster> (last modified Oct. 26, 2023, 1:16 PM); *USPTO Grant Rates*, PATENT BOTS, <https://www.patentbots.com/stats/uspto-grant-rates> (last accessed Nov. 11, 2023).

<sup>88</sup> *See, e.g., TC 2100 Management Roster*, *supra* note 87; *TC 3600 Management Roster*, *supra* note 87; *USPTO Grant Rates*, *supra* note 87.

<sup>89</sup> *Patent Process Overview Step 3: Application Prosecution*, *supra* note 59.

<sup>90</sup> *See, e.g., TC 3700 Management Roster*, *supra* note 3; *Tech Center 3700 – Mechanical Engineering, Manufacturing and Medical Devices/Processes*, PATENT BOTS, <https://www.patentbots.com/stats/tech-center/3700> (last accessed Nov. 13, 2023).

<sup>91</sup> *TC 3700 Management Roster*, *supra* note 3.

<sup>92</sup> *See, e.g., Classes Arranged by Art Unit*, *supra* note 3, at 78-80.

<sup>93</sup> *Classes Arranged by Art Unit*, *supra* note 3; *see TC 3700 Management Roster*, *supra* note 3.

(rotary expandable chamber devices).<sup>94</sup> Different art units can have classification tags that are unique to that art unit or share tags with other art units, like class tag 60 with Art Units 3741 and 3748. The sharing of classification tags amongst different art units is one of the reasons an application can receive assignments to different art units that have different success rates.

Recently, the USPTO classification system has been subject to change.<sup>95</sup> On January 1, 2013, the USPTO started the process of changing from the USPC system to the Cooperative Patent Classification (CPC) system.<sup>96</sup> The CPC system was designed jointly by the USPTO and the European Patent Office.<sup>97</sup> In 2021, the USPTO completed the transition and also revised the way it utilizes CPC classification tags.<sup>98</sup>

Previously, the USPTO manually assigned a single CPC classification tag to each application.<sup>99</sup> Each CPC classification tag corresponded to a specific art unit such that when an application with a specific tag reached the corresponding art unit, the art unit's supervisory patent examiner would decide which examiner within the art unit would be assigned the application.<sup>100</sup> The new method of assignment incorporates the use of AI.<sup>101</sup> Specifically, AI examines the entire application and provides CPC classification tags to the application in an "application classification picture."<sup>102</sup> Then, using a newly created examiner portfolio that contains classification tags that examiners have previously worked on,<sup>103</sup> the algorithm attempts

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<sup>94</sup> *Classes Arranged by Art Unit*, *supra* note 3, at 78-80.

<sup>95</sup> *Patent Classification*, *supra* note 2.

<sup>96</sup> *Id.*

<sup>97</sup> *Id.*

<sup>98</sup> *CPC Classification: The New Approach to Assigning Art Units*, LEXISNEXIS: IP BLOG (Feb. 3, 2021), <https://www.lexisnexisip.com/resources/cpc-classification-the-new-approach-to-assigning-art-units/>.

<sup>99</sup> *CPC Classification: The New Approach to Assigning Art Units*, *supra* note 98; Schwegman Lundberg & Woessner, P.A., *supra* note 80, at 18:34-18:40.

<sup>100</sup> *CPC Classification: The New Approach to Assigning Art Units*, *supra* note 98.

<sup>101</sup> See Hirshfeld, *supra* note 1; *CPC Classification: The New Approach to Assigning Art Units*, *supra* note 98.

<sup>102</sup> Schwegman Lundberg & Woessner, P.A., *supra* note 80, at 18:21-18:58.

<sup>103</sup> *Id.* at 18:58-20:11.

to best match the application classification picture to the most qualified examiner portfolio.<sup>104</sup> Once matched, the algorithm assigns the application to an examiner.<sup>105</sup> The algorithm can also take into consideration secondary factors, such as the workload of similarly qualified examiners, to determine which would make for a better assignment.<sup>106</sup> As a part of checks and balances, the USPTO can designate anyone to modify the assignment, for example, a supervisory patent examiner.<sup>107</sup>

In contrast, the old classification system assigned applications by the most comprehensive claim.<sup>108</sup> The USPTO's new classification system uses all parts of an application to determine classification tags for the application classification picture.<sup>109</sup> While the exact variables and weight given to each variable are not publicly known,<sup>110</sup> the algorithm does weigh the claims section more than other parts of the application.<sup>111</sup>

Delving into the CPC classification tags in depth unveils their organized structure within a hierarchical system.<sup>112</sup> At the highest level, the CPC tags are grouped into sections and further divided into different classes.<sup>113</sup> Each class contains one or more subclasses, and within these subclasses are groups wherein there exist main groups and subgroups.<sup>114</sup> For example, a steam turbine blade with one axial stage might be classified, in part, as F01D 5/021. In this tag, "F" stands for the section symbol "Mechanical Engineering; Lighting; Heating; Weapons;

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<sup>104</sup> *Id.* at 20:11-20:24.

<sup>105</sup> *Id.*

<sup>106</sup> *Id.* at 30:00-30:35; see *CPC Classification: The New Approach to Assigning Art Units*, *supra* note 98.

<sup>107</sup> Schwegman Lundberg & Woessner, P.A., *supra* note 80, at 32:47-33:29.

<sup>108</sup> *Id.* at 12:44-13:08.

<sup>109</sup> *Id.* at 18:23-18:58.

<sup>110</sup> *Id.* at 23:53-24:00.

<sup>111</sup> *Id.* at 23:23-23:27.

<sup>112</sup> See U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 905.01 (9th ed., rev. 7, 2022).

<sup>113</sup> See *id.*

<sup>114</sup> See *id.*

Blasting,”<sup>115</sup> “01” signifies the class symbol “Machines or Engines in General,”<sup>116</sup> “D” represents the subclass symbol “Non-Positive Displacement Machines or Engines, e.g. Steam Turbines,”<sup>117</sup> “5/00” represents the main group symbol “Blade-carrying members,”<sup>118</sup> and “05/021” specifies the subgroup “Blade-carrying members for flow machines or engines with only one axial stage.”<sup>119</sup>

Although the USPTO has been including CPC classification tags in published patent applications, there has been no publicly available processed data regarding the assignment of these tags to examiners or art units. Regardless of how CPC classification tags are classified or the path an application takes to reach an examiner, the outcome data of applications is all that is needed to understand that there is still an ongoing problem.<sup>120</sup>

Despite the possibility that the USPTO may have optimized resource allocation with the transition from human to AI assignment of applications, it has further opened the door to patent classification manipulability at the USPTO.<sup>121</sup>

#### **D. Parts of a Patent Application**

A utility patent application requires certain components to abide by statutory requirements.<sup>122</sup> Specifically, a patent requires at least a specification, a drawing, and one or

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<sup>115</sup> *Cooperative Patent Classification*, USPTO: CLASSIFICATION RES., <https://www.uspto.gov/web/patents/classification/cpc/html/cpc.html> (last accessed Nov. 17, 2023) (showing all CPC section symbols).

<sup>116</sup> *Cooperative Patent Classification: F Mechanical Engineering; Lighting; Heating; Weapons; Blasting*, USPTO: CLASSIFICATION RES., <https://www.uspto.gov/web/patents/classification/cpc/html/cpc-F.html> (last accessed Nov. 17, 2023) (showing all CPC class symbols within section symbol F).

<sup>117</sup> *Cooperative Patent Classification: F01D Non-Positive Displacement Machines or Engines, e.g., Steam Turbines*, USPTO: CLASSIFICATION RES., <https://www.uspto.gov/web/patents/classification/cpc/html/cpc-F01D.html#F01D%20> (last accessed Nov. 17, 2023) (showing all subsequently lower symbols within class F01D).

<sup>118</sup> *Id.*

<sup>119</sup> *Id.*; see also U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 905.01 (9th ed., rev. 7, 2022) (showing an example tag with each hierarchical system labeled).

<sup>120</sup> Jeff O’Neill, *Art Unit Predictor and USPTO Changes*, PATENT BOTS (Jan. 4, 2021), <https://blog.patentbots.com/2021/01/art-unit-predictor-and-uspto-changes.html> (stating that the USPTO changes do not matter as data is all that is needed and that the classification tags are mostly irrelevant, what matters is the assignment).

<sup>121</sup> See *infra* Part III.C.

<sup>122</sup> 35 U.S.C. § 111(a).



more claims.<sup>123</sup> The specification, in part, must include “a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains ... to make and use the same.”<sup>124</sup> Within the specification, subcomponents include a title, a background, a detailed description of the invention, and an abstract.<sup>125</sup>

The abstract entails a brief disclosure of the invention of no more than 150 words and has the purpose of enabling the UPSTO to quickly determine the “nature and gist of the technical disclosure.”<sup>126</sup> An applicant can manipulate the specification, including the abstract, to have favorable language for classification that may or may not comply with the guidelines and thus receive assignment to a more favorable art unit for examination.

The most important part of a patent application is the claims. Many patent practitioners know of the famous adage that “the name of the game is the claim.”<sup>127</sup> The claims measure the scope of the invention.<sup>128</sup> “In other words, the specification must enable the full scope of the invention as defined by its claims.”<sup>129</sup> Specifications are not required to describe in particular detail every aspect of the claims and can give general examples if the specification also discloses “some general quality ... running through” the claims.<sup>130</sup> In some instances, a general description

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<sup>123</sup> 35 U.S.C. § 111(a)(2)-(3); see 37 C.F.R. § 1.51; see also U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 601(I) (9th ed., rev. 7, 2022) (providing guidelines for the content within a nonprovisional application).

<sup>124</sup> 35 U.S.C. § 112(a); see 37 C.F.R. § 1.71(a).

<sup>125</sup> 37 C.F.R. § 1.77(b).

<sup>126</sup> 37 C.F.R. § 1.72(b).

<sup>127</sup> See, e.g., John Russell, *The Name of the Game Is the Claim*, MR. IP LAW (Nov. 14, 2020), <https://www.mriplaw.com/blog/gufinrqi3drckmx4byknpkm3x30xndl> (first citing *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998); and then citing Giles S. Rich, *The Extent of the Protection and Interpretation of Claims—American Perspectives*, 21 INT'L REV. INDUS. PROP. & COPYRIGHT L. 497, 499 (1990)).

<sup>128</sup> See, e.g., *Markman v. Westview Instruments*, 517 U.S. 370, 379 (1996); *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 902 (2014) (stating that in early US patent law practice, the specification “represented the key to the patent,” but eventually the claim section replaced it); *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 232 (1942).

<sup>129</sup> *Amgen Inc. v. Sanofi*, 143 S. Ct. 1243, 1254 (2023).

<sup>130</sup> *Id.* (citing *Incandescent Lamp Patent*, 159 U.S. 465, 475 (1895)).

is all that is needed in a specification to “enable a person skilled in the art to make and use all” that is claimed.<sup>131</sup> Thus, the claims disclose “the boundary of the invention” and are “the metes and bounds” of what the applicant seeks to enforce.<sup>132</sup>

### **E. How Prediction Tools Work**

Numerous services have emerged focused on identifying the likelihood of an application’s assignment to a specific art unit and examiner.<sup>133</sup> These tools help to identify language within an application that, if changed, impacts the probability of art unit assignment.<sup>134</sup> An application’s assignment into a specific art unit and examiner can tremendously impact allowance rates and time to issuance.<sup>135</sup>

Art unit predictor tools work by uploading an application into the tool, which then displays the likelihood of assignment into art units, GAUs, or examiners.<sup>136</sup> These tools utilize public patent data and classification tag definitions provided by the USPTO.<sup>137</sup> The integration of these art unit predictor tools allows for the assignment of more favorable art units and the avoidance of certain art units.<sup>138</sup> Specifically, Drew Hirshfeld, the previous USPTO Director, has suggested that applicants should utilize the publicly available definitions of classification tags to

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<sup>131</sup> *Id.* at 1255.

<sup>132</sup> *Ex Parte Fressola*, 27 U.S.P.Q.2d 1608, 1611 (P.T.A.B. 1993).

<sup>133</sup> *See, e.g., Art Unit Predictor*, PATENT BOTS, <https://www.patentbots.com/about-art-unit-predictor> (last accessed Nov. 13, 2023); *PatentAdvisor*, LEXISNEXIS, <https://www.lexisnexisip.com/solutions/patent-prosecution/patent-advisor/> (last accessed Nov. 13, 2023); *Tools For Smarter Patent Prosecution*, BIGPATENTDATA, <https://bigpatentdata.com/> (last accessed Nov. 13, 2023); *Avoid Unfavorable Art Units with Art Unit Prediction*, IRONCROW IP, <https://ironcrowai.com/predict-art-unit/> (last accessed Nov. 13, 2023).

<sup>134</sup> *See, e.g., Art Unit Predictor*, *supra* note 133; *PatentAdvisor*, *supra* note 133; *Tools For Smarter Patent Prosecution*, *supra* note 133; *Avoid Unfavorable Art Units with Art Unit Prediction*, *supra* note 133.

<sup>135</sup> *See infra* Part III.A.

<sup>136</sup> *See, e.g., Art Unit Predictor*, *supra* note 133; *PatentAdvisor*, *supra* note 133; *Tools For Smarter Patent Prosecution*, *supra* note 133; *Avoid Unfavorable Art Units with Art Unit Prediction*, *supra* note 133.

<sup>137</sup> *See, e.g., Art Unit Predictor*, *supra* note 133; *PatentAdvisor*, *supra* note 133; *Tools For Smarter Patent Prosecution*, *supra* note 133; *Avoid Unfavorable Art Units with Art Unit Prediction*, *supra* note 133.

<sup>138</sup> *See, e.g., Art Unit Predictor*, *supra* note 133; *PatentAdvisor*, *supra* note 133; *Tools For Smarter Patent Prosecution*, *supra* note 133; *Avoid Unfavorable Art Units with Art Unit Prediction*, *supra* note 133.

draft their applications such that it increases the likelihood that the USPTO's AI assigns their application correctly.<sup>139</sup>

Art unit predictor tools can utilize particular strategies to further increase the likelihood of a favorable art unit assignment. For example, an omnibus application, which includes a specification that has multiple applications-worth of material directed to separate inventions, could be filed, followed by multiple continuations (or divisionals) on the same day.<sup>140</sup> The intent of filing multiple continuations on the same day would be to spread the applications across multiple qualified art units by manipulating the USPTO's AI classification system, which factors examiner workload.<sup>141</sup> The goal of an art unit spread would be to have at least one of the applications assigned to a targeted art unit, from which multiple continuations could derive that have a high chance of being assigned to the same art unit if not the same examiner.<sup>142</sup>

### III. PROBLEM

#### A. Outcome Differences of Art Units

The examination of a patent application at the USPTO can have significantly different grant rates and times to issuance depending on where an application is assigned.<sup>143</sup> The effects

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<sup>139</sup> Schwegman Lundberg & Woessner, P.A., *supra* note 80, at 41:15-41:23, 42:01-42:25.

<sup>140</sup> Patent Bots, *supra* note 80, at 11:44-13:47.

<sup>141</sup> *Id.*; see *CPC Classification: The New Approach to Assigning Art Units*, *supra* note 98; Schwegman Lundberg & Woessner, P.A., *supra* note 80, at 29:59-30:23.

<sup>142</sup> Patent Bots, *supra* note 80, at 11:44-13:47; see also Robert Lichter & Ryan Potts, *Patent Office Insights from Two Former Examiners*, IPWATCHDOG (July 21, 2020, 12:15 PM), <https://ipwatchdog.com/2020/07/21/patent-office-insights-two-former-examiners/id=123414/> (two previous patent examiners stating that continuations are more likely to be assigned to the same examiner as their parent application); Chad Gilles, *Can I Change Patent Examiners?*, BIGPATENTDATA (Jan. 15, 2020), <https://bigpatentdata.com/2020/01/can-i-change-patent-examiners/> (finding that 90 percent of continuations and 83 percent of divisionals received the same examiner as their parent application).

<sup>143</sup> See e.g., Underhill, *supra* note 5; *USPTO Grant Rates*, *supra* note 87; *Allowance Rate by USPC Class*, USPTO, <https://developer.uspto.gov/visualization/allowance-rate-uspc-class> (last modified Oct. 13, 2021, 9:51 PM) (showing different USPC classification tags with different allowance rates such as USPC class tag 23 with 71.7 percent allowance and USPC class tag 4 with 38.4 percent allowance).

have had a meaningful impact on practitioners and inventors, so much so that certain art units are known as “where patent applications go to die.”<sup>144</sup>

At its extremes, the variance in allowance between art units can range anywhere from 13 percent to 94 percent.<sup>145</sup> Even similarly situated art units, like those in GAU 2150/2160 Data Base & File Management, can have substantially different rates of allowance.<sup>146</sup> For example, Art Unit 2159 and Art Unit 2161 share seven USPC classification tags out of ten.<sup>147</sup> Yet, Art Unit 2159 has a grant rate of 58 percent, while Art Unit 2161 has a grant rate of 80 percent.<sup>148</sup> As another example, multiple IPWatchdog articles provide anecdotal evidence that the USPTO has described Art Units 3681 and 3688 as receiving applications with the exact same subject matter, but Art Unit 3681 has historically had a grant rate of 29.8 percent while 3688 has historically had a grant rate of 81 percent.<sup>149</sup>

Even the timeliness of patent prosecution can vary.<sup>150</sup> Investigating TCs broadly, the USPTO-provided data shows widely varying lengths to receive an examiner decision.<sup>151</sup> The data, in part, shows the amount of time in months to pendency, a given length of time between

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<sup>144</sup> Quinn, *supra* note 4;

<sup>145</sup> *Compare Art Unit 3689*, *supra* note 6 (finding that Art Unit 3689, a business method – business processing art unit, has an average 3-year grant rate of 13 percent); *with Art Unit 2827*, *supra* note 5 (finding that Art Unit 2827, a static information storage retrieval art unit, has an average 3-year grant rate of 94 percent).

<sup>146</sup> *Group 2150-2160 — Data Bases & File Management*, PATENT BOTS, <https://www.patentbots.com/stats/group/2150-2160> (last accessed Nov. 20, 2023) (displaying the average 3-year grant rates across all art units within GAU 2150-2160, which range between 58 percent to 80 percent).

<sup>147</sup> *Classes Arranged Numerically with Art Unit and Search Room Locations*, USPTO, <https://www.uspto.gov/sites/default/files/documents/can.pdf> (last visited Nov. 22, 2023); *see Art Unit 2159*, PATENT BOTS, <https://www.patentbots.com/stats/art-unit/2159> (last visited Nov. 25, 2023); *Art Unit 2161*, PATENT BOTS, <https://www.patentbots.com/stats/art-unit/2161> (last visited Nov. 25, 2023).

<sup>148</sup> *Art Unit 2159*, *supra* note 147; *Art Unit 2161*, *supra* note 147.

<sup>149</sup> McLoughlin, *supra* note 4; Quinn, *supra* note 4.

<sup>150</sup> *Patents Data, at a Glance October 2023*, *supra* note 76 (taking each average of first pendency, total pendency, and total pendency with RCE, for TCs 1600, 1700, 2100, 2400, 2600, 2800, 3600, and 3700 between Jan. 2021 and Sept. 2023).

<sup>151</sup> *Patents Data, at a Glance October 2023*, USPTO, <https://www.uspto.gov/dashboard/patents/> (last modified Dec. 1, 2023, 11:29 AM) (click “Download the Technology Center Data as an Excel spreadsheet”) (showing a range of different pendency amounts for first pendency, total pendency, and total pendency with RCE for each TC for “FY 2023 (August)”); *id.*

the filing date of an application to the mailing date of a correspondence from a patent examiner.<sup>152</sup> Specifically, between January 2021 and September 2023, first Office action pendency ranged from 14.7 to 19.3 months (4.6-month difference), total pendency ranged from 21.3 to 27.8 months (6.5-month difference), and total pendency with an RCE ranged from 23.8 to 32.7 months (8.9-month difference).<sup>153</sup> Depending on the course of prosecution, these variances in timing may affect the term of an issued patent, i.e., how long after issuance the patent is in force.

While some patent applications merit statutory rejections, others are being held to a higher standard, as examiners are subconsciously thinking about making certain rejections. For example, a former business methods patent examiner, Neil Kardos, only allowed around twenty applications in a span of five years.<sup>154</sup> He has even stated that applicants would have been in a much better position if they could steer their applications away from his desk.<sup>155</sup> As an example, a business methods examiner may be constantly thinking about Section 101 rejections as they are consistently rejecting applications for Section 101.<sup>156</sup> Thus, that person may develop a mindset and habit of giving those rejections, so any application they receive is more prone to Section 101 scrutiny.<sup>157</sup> However, Kardos argues that it is beyond Section 101 that more scrutiny is given to *Alice*-related inventions (those with abstract ideas), like business methods, with other rejections such as Section 103 or 112.<sup>158</sup> “It is like there is a higher bar to patentability” for those

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<sup>152</sup> *Patents Pendency Data October 2023*, USPTO, <https://www.uspto.gov/dashboard/patents/pendency.html> (last modified July 31, 2023, 10:47 AM).

<sup>153</sup> *Patents Data, at a Glance October 2023*, *supra* note 76 (taking each average of first pendency, total pendency, and total pendency with RCE, for TCs 1600, 1700, 2100, 2400, 2600, 2800, 3600, and 3700 between Jan. 2021 and Sept. 2023, wherein the least and greatest values of the 8 TCs for each pendency were utilized).

<sup>154</sup> *Patents Bots*, *supra* note 80, at 1:53-2:13.

<sup>155</sup> *Id.* at 2:13-2:25.

<sup>156</sup> *Id.* at 7:29-7:47.

<sup>157</sup> *Id.* at 7:47-7:53.

<sup>158</sup> *Id.* at 7:53-8:34.

inventions.<sup>159</sup> While this is not a legal standard under the patent law, it can be a reality for applicants who deal with examiners in such art units.

Previous USPTO Director Drew Hirshfeld has even warned that applicants do not want to have their applications misassigned.<sup>160</sup> An applicant that has an AI invention does not want their AI application assigned to business methods.<sup>161</sup> He stated that “you do not want an application that has a good chance of being allowable” to be assigned in such a way that it has the “chance of a much lower allowance rate.”<sup>162</sup>

Such differences in application treatment and uncertainty in outcome have incentivized patent applicants to target draft and be assigned to different art units to avoid particular examiners, like business methods examiners.

## **B. Art Unit Reassignment Is Nearly Impossible**

Due to the significant variation in outcomes between different art units and examiners, certain art units and examiners are more and less favorable to applicants.<sup>163</sup> As a result, it is preferable for applicants to have their patent application examined by an examiner in an art unit deemed favorable. Even if an application already has a specific art unit and examiner assigned to it, the applicant may still be inclined to try to change who their application is assigned to ex-post.

However, in actuality, the practice of reassigning an application to a different art unit and examiner is difficult and nearly futile.<sup>164</sup> The process for reassignment involves a petition to the

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<sup>159</sup> *Id.* at 8:34-8:41.

<sup>160</sup> Schwegman Lundberg & Woessner, P.A., *supra* note 80, at 39:40-39:56.

<sup>161</sup> *Id.* at 40:06-40:14.

<sup>162</sup> *Id.* at 40:27-40:43.

<sup>163</sup> *See supra* Part II.A; *infra* Part III.E.1.

<sup>164</sup> *See, e.g.*, John Russell, *Petitions to Re-Assign Application to a New Examiner*, MR. IP LAW (Jan. 18, 2019), <https://www.mriplaw.com/blog/kk11i6os6yvs9nxxsw3ob2n5r7rd1a>; Gilles, *supra* note 142; Terri Sheih-Newton & Mark D. Hammond, *Examining Art Units to Avoid Subject Matter Eligibility Challenges for Bioinformatics and AI-related Patents*, MINTZ (Nov. 18, 2021), <https://www.mintz.com/insights-center/viewpoints/2231/2021-11-18-examining-art-units-avoid-subject-matter-eligibility>.

TC director of the application and involves proving some type of bias or improper behavior.<sup>165</sup> Furthermore, the USPTO limits the facts to the application in which the petition originated, and evidence such as the assigned examiner's low allowance rate is deemed irrelevant and would likely show against bias as the examiner is difficult to all applications.<sup>166</sup> Arguments that the examiner is inexperienced in the technology area of the application or that their interpretation of the prior art is unreasonable are also likely to be dismissed.<sup>167</sup>

If the TC director provides a decision dismissing the request for reassignment, the applicant can request a review of the first petition with a second petition to the USPTO Director requesting to exercise supervisory review of the TC director's decision.<sup>168</sup> An applicant who petitions the USPTO Director for supervisory authority in overruling a TC director's decision is required to show improper conduct that amounts to "bias or the appearance of bias."<sup>169</sup> Therefore, barring any extraordinary cases of improper conduct, once the USPTO assigns an application to an examiner and art unit, it will be examined there, further emphasizing the impact the assignment of an application has on its success.

### **C. Manipulating the Algorithm**

Previously, the USPTO's classification system only used the most comprehensive claim, which was determined manually.<sup>170</sup> The USPTO's new classification system utilizes all parts of an application, including the specification, claims, and abstract, to determine an "application

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<sup>165</sup> See Russell, *supra* note 164.

<sup>166</sup> See *id.*

<sup>167</sup> See *Lear, Inc. v. Adkins*, 395 U.S. 653, 670 (1969) (holding that reasonable people can disagree as to whether an application is patentable and for what grounds).

<sup>168</sup> See 37 C.F.R. § 1.181(a)(3); U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 1002.02(b) (9th ed., rev. 7, 2022); Russell, *supra* note 164; see also 37 C.F.R. § 11.1 (defining that "USPTO Director" means the Director of the USPTO or any employee delegated authority to act on behalf of the USPTO director).

<sup>169</sup> See *In re Ovshinsky*, 24 U.S.P.Q.2D 1241, 1251-52 (Comm'r Pats. 1992).

<sup>170</sup> Schwegman Lundberg & Woessner, P.A., *supra* note 80, at 12:44-13:08.

classification picture” that it matches to an examiner using an algorithm.<sup>171</sup> While the specifics of the algorithm are unknown,<sup>172</sup> it does weigh the claims section of a patent application more than other parts of a patent application when assigning to an examiner.<sup>173</sup> The claims of an application are of importance because they measure the scope of the invention.<sup>174</sup> While “the name of the game is the claim,”<sup>175</sup> the specification is also important because it needs to enable a person having ordinary skill in the art to make and use all that is claimed.<sup>176</sup>

Unlike the previous system, which only used the most comprehensive claim, the new system, using the entire application, is more exposed to manipulability by patent practitioners. For example, a strategically written application can have keywords that match the publicly available definitions of classification tags.<sup>177</sup> The use of these keywords, or their omission, increases the likelihood that the USPTO will assign an application to a desirable art unit and examiner. As such, their use is beneficial in instances where an applicant wants to ensure their application is correctly assigned. For example, an application that is truly AI would benefit from being written with AI keywords to increase the likelihood that the USPTO assigns it to an AI art unit and examiner, as opposed to being classified as a business method with a much lower allowance rate.<sup>178</sup> However, the same tactic can be applied to manipulate the classification system to classify what would be a correct assignment into a more favorable one (e.g., a business method invention assigned to an AI examiner by using non-business method keywords and

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<sup>171</sup> Schwegman Lundberg & Woessner, P.A., *supra* note 80, at 18:23-18:58; *see supra* Part II.D.

<sup>172</sup> Schwegman Lundberg & Woessner, P.A., *supra* note 80 at 23:53-24:00.

<sup>173</sup> *Id.* at 23:23-23:27.

<sup>174</sup> *See, e.g.*, *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 232 (1942); *Markman v. Westview Instruments*, 517 U.S. 370, 379 (1996); *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 902 (2014); *supra* Part II.D.

<sup>175</sup> *See Russell*, *supra* note 127.

<sup>176</sup> *Amgen Inc. v. Sanofi*, 143 S. Ct. 1243, 1255 (2023); *supra* Part II.D.

<sup>177</sup> *See Classification Resources*, USPTO, <https://www.uspto.gov/web/patents/classification/> (last accessed Nov. 7, 2023) (displaying two search bars in which a user may look up CPC or USPC classification tag definitions).

<sup>178</sup> Schwegman Lundberg & Woessner, P.A., *supra* note 80, at 40:07-40:43.



avoiding business method keywords). As an example, a finance-related application may have keywords of how the processing system performs operations that encompass the financial transaction, as opposed to using specific financial type terms to avoid being placed in a business method art unit.

Moreover, an application drafter could, theoretically, introduce these keywords into other areas of the application, like the specification, or introduce them into the claims section as a secondary independent claim that is distinct from the claims sought to be patented, with the intent following assignment, to cancel the filler claims. However, “an applicant is entitled to be their own lexicographer and may rebut the presumption that claim terms are to be given their ordinary and customary meaning by clearly” defining the term in a way that is different from its ordinary and customary meaning in the specification.<sup>179</sup> As such, an applicant can define certain keywords in the application and possibly trick the algorithm into classifying it with its ordinary and customary meaning.

While the claims are the “boundary of the invention” and are what is sought to be enforced,<sup>180</sup> the patent specification is essential to interpret the meaning of the claims.<sup>181</sup> The USPTO “determines the scope of the claims not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction in light of the specification.”<sup>182</sup> The claims must find support in the specification so that terms within the claims may be ascertainable by referencing the specification.<sup>183</sup> As such, the specification may define terms within the claims

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<sup>179</sup> U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 2111.01(IV)(A) (9th ed., rev. 7, 2022) (citing *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994)).

<sup>180</sup> *Ex Parte Fressola*, 27 U.S.P.Q.2d 1608, 1611 (P.T.A.B. 1993).

<sup>181</sup> *Phillips v. AWH Corp.* 415 F.3d 1303, 1316 (Fed. Cir. 2005).

<sup>182</sup> *See, e.g., Nautilus, Inc. v. Biosig Ins.*, 572 U.S. 898, 908 (2014); *id.*

<sup>183</sup> 37 C.F.R. § 1.75(d)(1).

but also include keywords that are extraneous to the claims.<sup>184</sup> While the Manual of Patent Examining Procedure (MPEP) states that the specification “must not include information that is not related to the applicant’s invention,” it only provides examiners with the option of objection, requiring applicants “to take appropriate action, e.g., cancel the information.”<sup>185</sup> As objections are surmountable, applicants may include certain keywords in the specification to increase the likelihood that the algorithm will favorably assign their application. Although the exact weight given to the specification in the algorithm’s assignment is unknown, adding essentially harmless keywords has little risk to the application’s chance of success during examination but may substantially impact the application’s chance of success due to a favorable assignment.

The use of certain keywords may also be used within the claims section, as the algorithm weighs the claims section more heavily in examiner assignment.<sup>186</sup> Similar to the specification, one can add specific keywords to throwaway claims, which, after assignment, can be canceled.<sup>187</sup>

While some manual checks are in place to counteract incorrect classifications,<sup>188</sup> these checks are probably not foolproof. First, applications can encompass substantially different technology areas, making it difficult to assign them neatly to one examiner. For example, an application regarding medical IoT devices might fall into several different technology areas for classification (e.g., bioinformatics, communication networks, cybersecurity, electrical circuit systems, surgical equipment). What an examiner qualified in one technology area might perceive as an incorrect assignment may be no better or worse than if the same assignment were to be handled by a different examiner in an equally qualified technology area related to the

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<sup>184</sup> See 37 C.F.R. § 1.121(b) (allowing amendments to an application, including deletion); *but see* 37 C.F.R. § 1.121(f) (stating no amendment may add new matter into the specification).

<sup>185</sup> U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 608.01 (9th ed., rev. 7, 2022).

<sup>186</sup> Schwegman Lundberg & Woessner, P.A., *supra* note 80, at 23:23-23:27.

<sup>187</sup> 37 C.F.R. § 1.121(c).

<sup>188</sup> Schwegman Lundberg & Woessner, P.A., *supra* note 80, at 32:52-33:23; *see supra* Part II.C.

application. Second, the manipulation of the application could be subtle, as even similarly situated art units can have substantial differences in allowance rates.<sup>189</sup> This effect differs from the first point in that there may be an abundance of qualified examiners in which specific keywords (or omission thereof) narrow the pool of those qualified to a favorable subset.

Since the AI classification system is manipulable and likely not foolproof, strategies can devise a path for an application to receive a favorable assignment. While such manipulation is theoretically possible, there is a question as to whether it is ethical.<sup>190</sup>

#### **D. Ethical Problems of Manipulation**

The manipulation of patent applications raises ethical concerns of dishonesty and misrepresentation of fact. “Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith” to the USPTO.<sup>191</sup> Furthermore, practitioners shall not knowingly make false statements of fact or law to the USPTO<sup>192</sup> or engage in conduct that involves dishonesty, fraud, deceit, or misrepresentation.<sup>193</sup>

If a patent practitioner drafts an application wherein a prediction tool indicates a strong likelihood that the application will receive assignment to an unfavorable location, they may speak with their client to determine changes that can alter the application’s language. Some of those changes may involve utilizing publicly available keywords that the USPTO’s AI system uses to assign applications.<sup>194</sup> The inclusion or omission of certain keywords may increase the likelihood of a favorable assignment. However, if the practitioner, knowing of the invention’s

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<sup>189</sup> See Quinn, *supra* note 4 (finding it hard to reconcile the difference in allowance rates between art units 3628 and 3689 as they examine the same type of application); McLoughlin, *supra* note 4 (stating that the USPTO describes art units 3628 and 3689 as “handling the exact same subject matter”).

<sup>190</sup> See *infra* Part III.D.

<sup>191</sup> 37 C.F.R. § 1.56(a).

<sup>192</sup> 37 C.F.R. § 11.303(a)(1).

<sup>193</sup> 37 C.F.R. § 11.804(c).

<sup>194</sup> See *supra* Part III.C.

scope purposefully alters language to something other than the invention’s scope for the purpose of evading unfavorable assignment, ethical considerations regarding professional misconduct may arise.<sup>195</sup> However, patent practitioners are allowed to be their own lexicographers when drafting an application.<sup>196</sup>

Thus, the use of AI without human classification or any other checks when assigning a patent application for examination raises unanswered ethical questions.

### **E. Forum Shopping Equivalence**

The targeted drafting of patent applications with the intent of classifying them into favorable art units has many similarities to forum shopping.<sup>197</sup> Unlike most litigation, the examination and appeal processes at the USPTO and PTAB are *ex parte*.<sup>198</sup> While there is no direct adversary to take advantage of, like in traditional forum shopping, patent practitioners can nonetheless take advantage of the public at large, who may face prevention from making, using, or selling technology covered by an issued patent.<sup>199</sup>

Forum shopping involves strategically choosing the most favorable court or jurisdiction for a given case.<sup>200</sup> Historically, the American legal system has had a negative view of forum shopping and has tended to identify and fix it.<sup>201</sup> Views discouraging forum shopping rest on three main arguments: (1) that forum shopping undermines state law authority; (2) that forum

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<sup>195</sup> See Patent Bots, *supra* note 80, at 39:29-39:38.

<sup>196</sup> *Nautilus, Inc. v. Biosig Instruments, Inc.* 572 U.S. 898, 910 (2014).

<sup>197</sup> See Hannah Mehrle, *Forum Shopping Within the United States Patent and Trademark Office*, 70 CASE W. RESV. L. REV. 791 (2020) (arguing that patent drafting to specific art units is forum shopping).

<sup>198</sup> See *Ex Parte*, BLACK’S LAW DICTIONARY (11th ed. 2019) (Latin for only one party, without argument from an adverse party).

<sup>199</sup> See U.S. CONST. art. I, § 8, cl. 8; *see, e.g.*, *Bonito Boats v. Thunder Craft Boats*, 489 U.S. 141, 150-51 (1989); *Amgen Inc. v. Sanofi*, 143 S. Ct. 1243, 1245 (2023) (describing the patent bargain).

<sup>200</sup> *Forum-Shopping*, BLACK’S LAW DICTIONARY (11th ed. 2019).

<sup>201</sup> *Erie R.R. Co. v. Tompkins*, 304 U.S. 64, 78 (1938); *see* *Hanna v. Plumer*, 380 U.S. 460, 468 (stating that the twin aims of “*Erie* were the discouragement of forum-shopping and avoidance of inequitable administration of the laws.”); H.R. Rep. No. 97-312, at 20-22 (1981); John Roberts, *2021 Year-End Report on the Federal Judiciary*, SUP. CT. OF THE U.S., 5 (Dec. 31, 2021), <https://www.supremecourt.gov/publicinfo/year-end/2021year-endreport.pdf>.

shopping overburdens courts and results in unnecessary expenses; and (3) that forum shopping creates an adverse public perception regarding the fairness of the legal system.<sup>202</sup> Here, art unit forum shopping encompasses all three of those arguments.

### 1. Forum Shopping Undermines Authority

Two of the most common types of forum shopping are interstate forum shopping and state-federal forum shopping. Interstate forum shopping comprises of choosing a court between two or more states.<sup>203</sup> Meanwhile, state-federal forum shopping is the strategy of choosing between state court or federal court within one state.<sup>204</sup> The Supreme Court has been more inclined to condone state-federal forum shopping than it has with interstate forum shopping, however, commentators still view interstate forum shopping as wrong.<sup>205</sup> Generally, the Court has cited to the undermining of state authority as one of the reasons against forum shopping.<sup>206</sup>

Similarly, in art unit forum shopping, the authority of the Constitution's grant of the patent bargain and the USPTO's prosecution process are undermined. While patent examiners in different art units are not applying different laws, like in interstate and state-federal forum shopping, they apply the same laws differently, creating a similar effect. Although there is no direct evidence that different examiners apply the law differently, there is circumstantial evidence that similarly situated art units can have substantially different allowance rates.<sup>207</sup> For

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<sup>202</sup> Note, *Forum Shopping Reconsidered*, 103 HARV. L. REV. 1677, 1684 (1990).

<sup>203</sup> See Mehrle, *supra* note 197, at 802.

<sup>204</sup> See *id.*; Note, *supra* note 202, at 1683.

<sup>205</sup> See Mehrle, *supra* note 197, at 803; Note, *supra* note 202, at 1681; compare *Erie R.R. Co.*, 304 U.S. at 78 (eliminating federal common law and holding that federal courts must apply state common law), and *Hanna*, 380 U.S. at 469-70 (holding that the Federal Rules of Civil Procedure preempt state rules that may be in conflict and clarifying what is substantive or procedural), and *Bristol-Meyers Squibb Co. v. Superior Court*, 582 U.S. 255, 264 (2017) (holding that courts must have personal jurisdiction over each plaintiff and claim), with *Keeton v. Hustler Magazine, Inc.*, 465 U.S. 770, 789 (1984) (allowing the plaintiff to bring suit in a state simply because of its favorable statute of limitations).

<sup>206</sup> See *Erie R.R. Co.*, 304 U.S. at 79.

<sup>207</sup> See *supra* Part III.A.

example, in 2016, Art Unit 3628 had an allowance rate of 10.7 percent<sup>208</sup>, and Art Unit 3689 had an allowance rate of 1.5 percent,<sup>209</sup> more than seven times less than Art Unit 3628. Yet, these art units comprise substantially the same subject matter; they are both business method art units that handle business processing, cost/price determination, and reservations.<sup>210</sup> Even following the post-*Alice* guidance given to examiners<sup>211</sup> and changes to how the USPTO classifies applications,<sup>212</sup> these art units, amongst others, still have substantially different allowance rates that incentivize art unit forum shopping. Specifically, between January 2021 and October 2023, Art Units 3628 and 3689 had allowance rates of 43.9 percent<sup>213</sup> and 34.5 percent,<sup>214</sup> respectively. While both art units saw an increase in allowance rates compared to the 2016 example, they maintained a similar difference in the rate of allowance of around 9 percent. Such examples of the discrepancy between art units of substantially similar subject matter indicate that examiners in different art units apply the same laws differently.

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<sup>208</sup> *Art Unit Search Results for 3628*, LEXISNEXIS: PATENT ADVISOR, <https://go.patentadvisor.com/> (last accessed Nov. 27, 2023) (click “Art Unit” from the left search panel; then type “Art Unit 3628” into the search box; then click “Filters”; then “Basic Application Data”; then enter “01-01-2016” into “Disposition From” and “12-31-2016” into “To”; and then select “Filter”).

<sup>209</sup> *Art Unit Search Results for 3689*, LEXISNEXIS: PATENT ADVISOR, <https://go.patentadvisor.com/> (last accessed Nov. 27, 2023) (click “Art Unit” from the left search panel; then type “Art Unit 3689” into the search box; then click “Filters”; then “Basic Application Data”; then enter “01-01-2016” into “Disposition From” and “12-31-2016” into “To”; and then select “Filter”).

<sup>210</sup> See Quinn, *supra* note 4 (finding it hard to reconcile the difference in allowance rates between art units 3628 and 3689 as they examine the same type of application); McLoughlin, *supra* note 4 (stating that the USPTO describes art units 3628 and 3689 as “handling the exact same subject matter”); *TC 3600 Management Roster*, *supra* note 87 (wherein GAU 3620 is named “Business Methods - Incentive Programs, Coupons; Operations Research; Electronic Shopping; Health Care; Point of Sale, Inventory, Accounting; Cost/Price, Reservations, Shipping and Transportation; Business Processing” and GAU 3680 is similarly named “Business Methods - Incentive Programs, Coupons; Electronic Shopping; Business Cryptography, Voting; Health Care; Point of Sale, Inventory, Accounting; Business Processing, Electronic Negotiation”).

<sup>211</sup> BERKHEIMER MEMORANDUM, *supra* note 33; 2019 Revised Subject Matter Eligibility Guidance, *supra* note 33; TOOLE & PAIROLERO, *supra* note 29, at 1.

<sup>212</sup> *Patent Classification*, *supra* note 2; see Hirshfeld, *supra* note 1.

<sup>213</sup> *Art Unit Search Results for 3628*, *supra* note 208 (changing the “Disposition From” date to 2021-01-01 and the “To” date to 2023-10-31).

<sup>214</sup> *Art Unit Search Results for 3689*, *supra* note 209 (changing the “Disposition From” date to 2021-01-01 and the “To” date to 2023-10-31).

Moreover, in situations where patent practitioners are able to successfully target draft and get an application assigned to a different subject matter art unit, those patent examiners may not be well equipped to handle *Alice*-affected applications, thus, either granting patents on a case that should have been rejected (for Section 101 or other grounds) or denying an application that should have received approval.<sup>215</sup> Regardless of whether the USPTO assigns an application to similarly situated art units or to those with different subject matter, art unit forum shopping undermines the constitutionally granted patent bargain and the USPTO in its ability to effectuate it.<sup>216</sup> It inflates the instances of applications that should become a patent, impacting the public by unnecessarily granting monopolies and limiting applications worthy of a patent, leaving inventors with a publicly disclosed trade secret.

## 2. Forum Shopping Overburdens and Creates Unnecessary Expenses

Another argument against traditional forum shopping is that it overburdens courts and results in unnecessary expenses.<sup>217</sup> Specifically, litigants may look for the most favorable court, as opposed to the closest or simplest court, requiring more allocation of judicial resources.<sup>218</sup> Unlike many federal agencies, the USPTO is not funded on federal tax revenue and instead is entirely funded based on fees collected from its users.<sup>219</sup> Nonetheless, like traditional forum shopping, art unit forum shopping may overburden certain areas of the USPTO and cause

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<sup>215</sup> See Patent Bots, *supra* note 80, at 7:36-8:27 (stating that business-methods examiners are subconsciously thinking about certain rejections that examiners in other art units would not be thinking of on a daily basis).

<sup>216</sup> U.S. CONST. art. I, § 8, cl. 8; *see, e.g.*, *Bonito Boats v. Thunder Craft Boats*, 489 U.S. 141, 150-51 (1989); *Amgen Inc. v. Sanofi*, 143 S. Ct. 1243, 1245 (2023).

<sup>217</sup> See 135 CONG. REC. E2243 (daily ed. June 21, 1989) (statement of Rep. Luken) (“The losers [of forum shopping] are the American public who end up paying excessive legal fees that are silently encapsulated in the price of products.”).

<sup>218</sup> See Note, *supra* note 202, at 1684; Markus Petsche, *What’s Wrong with Forum Shopping - An Attempt to Identify and Assess the Real Issues of a Controversial Practice*, 45 INT’L L. 1005, 1010 (2011); Franco Ferrari, ‘Forum Shopping’ Despite International Uniform Contract Law Convention, 51 INT’L & COMP. L.Q. 689, 707 (2002).

<sup>219</sup> Patent Public Advisory Committee Fee Setting Report, USPTO 1 (Aug. 14, 2023) <https://www.uspto.gov/sites/default/files/documents/PPAC-Report-on-2023-Fee-Proposal.docx>.

unnecessary expenses in the form of fees to its users, delays in examination, and unnecessary appeals to the PTAB.

The time of pendency, the measure of months a patent application takes to reach a specific milestone in prosecution,<sup>220</sup> provides insight into the overburdening of examiners in art units within technology centers. Data distributed by the USPTO shows that different technology centers have different ranges of first office action pendency, total pendency, and total pendency with RCE.<sup>221</sup> For example, between September 2022 and September 2023, TC 1700 had a first office action pendency average of 18.8, a total pendency average of 29.0, and a total pendency with RCE average of 33.3.<sup>222</sup> In that same time period, TC 2400 had pendencies of 15.1, 24.2, and 27.9, a difference of 3.7, 4.8, and 5.4 months respectively.<sup>223</sup> The variation between TCs 1700 and 2400 is not the largest pendency difference among all TCs,<sup>224</sup> however, TCs 1700 and 2400 are a good example of possible areas in which practitioners could art unit forum shop, as several art units within both TCs share classification tags.<sup>225</sup>

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<sup>220</sup> *Patents Pendency Data October 2023*, *supra* note 152.

<sup>221</sup> *Patents Data, at a Glance October 2023*, *supra* note 76 (taking each average of first pendency, total pendency, and total pendency with RCE for TCs 1600, 1700, 2100, 2400, 2600, 2800, 3600, and 3700 between Jan. 2021 and Sept. 2023).

<sup>222</sup> *Id.* (taking each average of first pendency, total pendency, and total pendency with RCE for TC 1700 between Sept. 2022 and Sept. 2023).

<sup>223</sup> *Id.* (taking each average of first pendency, total pendency, and total pendency with RCE for TC 2400 between Sept. 2022 and Sept. 2023).

<sup>224</sup> *See id.* (after taking all 3 pendency averages between September 2022 and September 2023 for each TC, an average first office action pendency difference of 4.3 between TC 1600 (18.3) and TC 2600 (14.8), an average total pendency difference of 6.1 between TC 1700 (29.0) and TC 2600 (22.9), and an average total pendency with RCE difference of 8.5 between TC 1600 (33.4) and TC 2600 (24.8)).

<sup>225</sup> *See, e.g., Art Unit 1713*, PATENT BOTS, <https://www.patentbots.com/stats/art-unit/1713> (last visited Nov. 23, 2023) (showing that Art Unit 1713 has 10 USPC classification tags including, 156 adhesive bonding and miscellaneous chemical manufacture, 428 stock material or miscellaneous articles, 438 semiconductor device manufacturing; process, and 451 abrading); *Art Unit 2823*, PATENT BOTS, <https://www.patentbots.com/stats/art-unit/2823> (last visited Nov. 23, 2023) (showing that Art Unit 2823 has 2 similar USPC classification tags to Art Unit 1713, tags 438 and 451); *Art Unit 2891*, PATENT BOTS, <https://www.patentbots.com/stats/art-unit/2891> (last visited Nov. 23, 2023) (showing that Art Unit 2891 has 3 similar USPC classification tags to Art Unit 1713, tags 156, 428, and 438); *Art Unit 2892*, PATENT BOTS, <https://www.patentbots.com/stats/art-unit/2892> (last visited Nov. 23, 2023) (showing that Art Unit 2892 has the same 3 similar USPC classification tags to Art Unit 1713 as does Art Unit 2891); *see also Classes Arranged Numerically With Art Unit and Search Room Locations*, *supra* note 147 (showing classification tags in numerical order corresponding to each art unit they apply).



Art unit forum shopping could be causing discrepancies in the prosecution timeline, while the prosecution timeline may also contribute to the necessity of art unit forum shopping. Both TC 1700 and 2400 had a similar number of examiners staffed between September 2022 and September 2023.<sup>226</sup> Furthermore, TC 1700 and 2400 had similar amounts of total filings.<sup>227</sup> Thus, it may be possible that target-drafted applications find assignment to desirable art units and examiners but not necessarily to those who are best suited to examine the subject matter of the application. Examiners whose subject matter experience differs from the subject matter of a targeted application may either examine an application too fast or too long compared with an examiner who has expertise in the application's subject matter. Additionally, art unit forum shopping may result in unnecessary fees to all applicants regardless of whether they forum shop due to longer pendencies, which can create a need for more examiners.

### **3. Forum Shopping Creates Adverse Public Perception**

Lastly, forum shopping contributes to a negative public perception of the fairness of the legal system.<sup>228</sup> Some view it as a “heads I win, tails you lose” strategy, among many other criticisms.<sup>229</sup> Various efforts aim to curb forum shopping, intending to uphold or restore a positive perception of the American legal system.<sup>230</sup> Supreme Court Chief Justice, John Roberts,

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<sup>226</sup> *Patents Data, at a Glance October 2023*, *supra* note 76 (taking each average amount of examiners for TC 1700 and 2400 between Sept. 2022 and Sept. 2023, wherein TC 1700 had an average of 921.4 examiners while TC 2400 had an average of 913.2 examiners).

<sup>227</sup> *Patents Data, at a Glance October 2023*, *supra* note 151 (providing that for “FY 2023(August)” TC 1700 had 8,837 original filings and 19,495 RCE filings, for a combined total of 28,332 and TC 2400 had 11,113 original filings and 15,877 RCE filings for a combined total of 27,010).

<sup>228</sup> *Hanna v. Plumer*, 380 U.S. 460, 468 (1965) (holding that the second twin aim of *Erie* is the “avoidance of inequitable administration of the laws.”)

<sup>229</sup> *Coastal Corp. v. Texas E. Corp.* 869 F.2d 817, 821 (5th Cir. 1989).

<sup>230</sup> *See, e.g., Examination of Litigation Abuses: Hearing Before the Subcomm. on the Const. & Civ. Just. of the H. Comm. on the Judiciary*, 113th Cong. 78 (2013) (statement of John Beisner, on behalf, U.S. Chamber Inst. for Legal Reform, Skadden, Arps, Slate, Meagher & Flom LLP) (stating that forum shopping is “undermining [the] economy and sully[ing] the reputation of our legal system”); H.R. 1017, 118th Cong. (2023) (attempt to reduce forum shopping in the bankruptcy system to “strengthen the integrity of, and build public confidence and ensure fairness in, the bankruptcy system.”); Nate Raymond, *US Judicial Panel to Examine ‘Forum Shopping’ Reforms*, REUTERS (Oct.

has even stated that patent litigation forum shopping is one of the three biggest issues facing the Federal Judiciary.<sup>231</sup>

Using patent litigation as an example, there have historically been favorable jurisdictions for patentees and patent challengers.<sup>232</sup> For example, one report shows that the Northern District of Illinois has outcomes that favor patentees 44.79 percent of the time, whereas the Western and Eastern Districts of Texas only favor patentees 6.54 and 7.97 percent of the time, respectively.<sup>233</sup> Furthermore, the Eastern District of Texas denies more than 63 percent of motions to dismiss, whereas the Northern District of Illinois denies less than 44 percent of motions to dismiss.<sup>234</sup> Certain judges within courts can also receive more patent infringement cases due to their favorability to patentees or patent challengers. For example, on cases that go to trial, Judge Gilstrap favored patentees 49.3 percent, whereas all other trial judges in the United States favored patentees 57.6 percent of the time.<sup>235</sup>

More recently, Judge Albright has gathered attention shortly after his confirmation in September 2018.<sup>236</sup> Once a longtime patent litigator, Judge Albright became the only judge in the

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18, 2023, 12:15 PM) <https://www.reuters.com/legal/government/us-judicial-panel-examine-judge-shopping-reforms-2023-10-17/>.

<sup>231</sup> Roberts, *supra* note 201; see Mike Masnick, *Texas Courts Fix its Judge Alan Albright Problem by Automatically Reassigning Most of His Patent Cases*, TECHDIRT (July 26, 2022, 1:40 PM), <https://www.techdirt.com/2022/07/26/texas-courts-fix-its-judge-alan-albright-problem-by-automatically-reassigning-most-of-his-patent-cases/>; Blake Brittain, *U.S. Chief Justice Roberts Pledges to Review Patent Venue Rules*, REUTERS (Jan. 3, 2022, 2:28 PM), <https://www.reuters.com/legal/transactional/us-chief-justice-roberts-pledges-review-patent-venue-rules-2022-01-03/>.

<sup>232</sup> See, e.g., *Deciding Jurisdiction and Venue for Patent Litigation*, COPPERPOD INTELLECTUAL PROPERTY (July 6, 2021), <https://www.copperpodip.com/post/deciding-jurisdiction-and-venue-for-patent-litigation>; Mike Masnick, *Former Patent Litigator Becomes Federal Judge And Begins Advertising For Patent Trolls To Come To His Court (And They Have In Doves)*, TECHDIRT (Oct. 5, 2020, 9:31 AM), <https://www.techdirt.com/tag/east-texas/>.

<sup>233</sup> *2021 Patent Litigation Year in Review*, DOCKET NAVIGATOR 17 (Jan. 31, 2022), <https://brochure.docketnavigator.com/2021-year-in-review/>.

<sup>234</sup> Robert Combs, *2023 Litigation Statistics Series: Patent Litigation*, BLOOMBERG L. 18, <https://aboutblaw.com/86S> (last visited Nov. 5, 2023).

<sup>235</sup> Joe Palazzolo, et al., *Judge Rodney Gilstrap Sets an Unwanted Record: Most Cases with Financial Conflicts*, WALL ST. J. (Sept. 29, 2021, 9:02 AM), <https://www.wsj.com/articles/judge-rodney-gilstrap-sets-an-unwanted-record-most-cases-with-financial-conflicts-11632920541>.

<sup>236</sup> Elaine Chow, *Chief Judge of the Western District of Texas Ends Automatic Assignment to Judge Albright of Patent Cases Filed in Waco Division: A Look at the Numbers*, LEXISNEXIS: LEX MACHINA (July 28, 2022),

Waco Division of the Western District of Texas and advertised to companies to file cases within his plaintiff-friendly district.<sup>237</sup> Problematically, filing rules allowed plaintiffs to choose their division, guaranteeing they could choose Judge Albright.<sup>238</sup> In 2017, before Judge Albright's confirmation, the entire Western District of Texas saw eighty-five patent infringement cases; by 2021, that number rose to 978 cases, with Judge Albright handling 932.<sup>239</sup> The 932 cases assigned to Judge Albright represented 23 percent of all patent cases filed in U.S. District Courts.<sup>240</sup> On November 2, 2021, U.S. Senators Thom Tillis and Patrick Leahy expressed their concerns in a letter to Chief Justice Roberts.<sup>241</sup> The Chief Justice then addressed the concern as one of the biggest three issues facing the U.S. legal system.<sup>242</sup> On July 25, 2022, the Chief Judge for the Western District of Texas issued an order changing the District's filing rules, stating that patent cases filed in the Waco Division would receive random assignment to twelve district court judges from the entire district, of which Judge Albright was one.<sup>243</sup> The Chief Judge's order has had a gradual impact on Judge Albright's case volume.<sup>244</sup> Due to the Western District's practice of assigning Judge Albright legacy cases, those with the same patents or parties already before him, Judge Albright still receives approximately half of all patent cases in the Western

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<https://lexmachina.com/blog/chief-judge-of-the-western-district-of-texas-ends-automatic-assignment-to-judge-albright-of-patent-cases-filed-in-waco-division/>.

<sup>237</sup> Tommy Witherspoon, *Waco Becoming Hotbed for Intellectual Property Cases with New Federal Judge*, WACO TRIBUNE-HEARLD (Jan. 18, 2020), [https://wacotrib.com/news/local/waco-becoming-hotbed-for-intellectual-property-cases-with-new-federal-judge/article\\_0bcd75b0-07c5-5e70-b371-b20e059a3717.html](https://wacotrib.com/news/local/waco-becoming-hotbed-for-intellectual-property-cases-with-new-federal-judge/article_0bcd75b0-07c5-5e70-b371-b20e059a3717.html); *Waco NPE Filings Still Dominated by "Legacy" Campaigns – and Judge Albright*, RPX CORP. (May 3, 2023), <https://www.rpxcorp.com/data-byte/waco-npe-filings-still-dominated-by-legacy-campaigns-and-judge-albright>; Chow, *supra* note 236; *see* Masnick, *supra* note 232.

<sup>238</sup> *See, e.g., Q4 in Review: NPE Litigation Holds Steady in 2022 Despite Top Venue Headwinds*, RPX CORP. (Jan. 10, 2023), <https://www.rpxcorp.com/intelligence/blog/q4-in-review-npe-litigation-holds-steady-in-2022-despite-top-venue-headwinds/>.

<sup>239</sup> *See* Chow, *supra* note 237.

<sup>240</sup> *Id.*

<sup>241</sup> Letter from Thom Tillis, Senator, U.S., & Patrick Leahy, Senator, U.S., to John Roberts, Chief Justice, U.S. (Nov. 2, 2021) (on file with author).

<sup>242</sup> Roberts, *supra* note 201, at 5.

<sup>243</sup> Chow, *supra* note 237; *Q4 in Review*, *supra* note 239.

<sup>244</sup> *See, e.g., Waco NPE Filings*, *supra* note 238; *Q4 in Review*, *supra* note 239.

District.<sup>245</sup> However, new cases are being evenly distributed amongst the twelve judges, indicating an eventual regression towards the mean for Judge Albright's case volume.<sup>246</sup>

Forum-shopped venues in patent litigation have become so favorable to certain sides of a party that some companies are trying to counteract the impact through other means. For example, Samsung, the company that has the most active US patents and has also faced the most patent lawsuits, often finds itself a defendant in the plaintiff-friendly Marshall Division of the Eastern District of Texas.<sup>247</sup> As a result, Samsung has built and sponsored the sole outdoor ice rink in Texas directly in front of the District Courthouse in Marshall, as well as funded scholarship programs and donated to local charities in the small town.<sup>248</sup>

The negative public perception that forum shopping creates likely stems from its perceived unfairness, that adverse parties may have substantially different outcomes depending on the chosen venue.<sup>249</sup> Ultimately, the public's view of a fair legal system would likely be deciding cases on the merits as opposed to the choice of venue or if a party had built an ice rink in the town of the courthouse.

Similarly, art unit forum shopping contributes to a negative public perception of the patent prosecution process at the USPTO. With vastly different allowance rates and times-to-issuance, the art unit and examiner assigned to an application can substantially influence whether the application receives an allowance, possibly more than the material within the application

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<sup>245</sup> *Q4 in Review*, *supra* note 239.

<sup>246</sup> *Id.*

<sup>247</sup> Michael Blanding, *Why South Korea's Samsung Built the Only Outdoor Skating Rink in Texas*, HARV. BUS. SCH. (June 11, 2018), <https://hbswk.hbs.edu/item/why-south-korea-s-samsung-built-the-only-outdoor-skating-rink-in-texas>.

<sup>248</sup> Lauren Cohen & Umit Gurun, *Burying the Verdict*, HARV. L. SCH. FORUM ON CORPORATE GOVERNANCE (May 9, 2018), <https://corpgov.law.harvard.edu/2018/05/09/buying-the-verdict/>; Anthony Zurcher, *Why a Small Town in Texas had Samsung's Ear*, BBC (May 27, 2017), <https://www.bbc.com/news/world-us-canada-40021491>.

<sup>249</sup> *See Petsche*, *supra* note 219, at 1011.

itself.<sup>250</sup> Thus, patent practitioners may be incentivized to art unit forum shop, not drafting the most accurately written application of the applicant's invention, but instead, drafting an application in such a way as to be classified to a favorable art unit and examiner.<sup>251</sup>

#### **IV. SOLUTIONS**

While the ability to forum shop is viewed negatively and often changed not to be allowed, the USPTO's new AI classification system exacerbates the ability for applicants to forum shop their applications to more favorable art units and examiners. This Part offers suggestions that the USPTO or Congress can take to reduce the manipulability of the USPTO's classification system and reduce the need to forum shop.

##### **A. Remove Publicly Available Data so There is No Way to Target Draft**

The USPTO or Congress could implement changes relating to publicly available information regarding published applications and patents to combat target drafting and art unit forum shopping. For example, traditional forum shopping is less prevalent in a civil law system than in a common law system because of its lack of public information regarding judges.<sup>252</sup> Similarly, art unit forum shopping would be less prevalent if patent drafting tools could not process certain data. Publicly available data attached to an application, such as the assigned examiner, art unit, prosecution history, and classification tags, would help alleviate most of the useful data accessible that facilitates target drafting and forum shopping. While an application's outcome would be the most impactful piece of data to keep unpublished, its publication is likely necessary for prior art purposes and for the public to know what the boundaries of a patent are.<sup>253</sup>

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<sup>250</sup> See *supra* Part III.A; *supra* Part III.E.1.

<sup>251</sup> See *supra* Part II.E; *supra* Part III.C.

<sup>252</sup> Note, *supra* note 202, at 1678.

<sup>253</sup> See, e.g., *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901-02 (2014); *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U. S. 722, 730 (2002); see also *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1345 (Fed. Cir. 2010) (noting that a description of a claimed invention allows the public “to avoid the claimed boundaries of the patentee’s exclusive rights.”).

It would be difficult for the public to navigate patent boundaries when they do not know what is and is not patented.

Federal patent law assigns the USPTO responsibility for disseminating information regarding patents to the public.<sup>254</sup> However, it leaves the USPTO Director discretion as to which information regarding a patent application should be published.<sup>255</sup> Congress could amend 35 U.S.C. § 122 to expressly exclude the aforementioned data as information that is allowed to be published. Alternatively, the USPTO Director could provide guidance to the USPTO on not releasing such information.

### **B. Lowering the Standard Needed For Application Reassignment**

The need to target draft is partly rooted in the difficulty faced by applicants when attempting to have an application reassigned to a different art unit.<sup>256</sup> Examiners possess the capability to address concerns regarding a potentially wrongful assignment with their supervisory patent examiner.<sup>257</sup> The supervisory patent examiner or anyone the USPTO gives access to, can override the algorithm's assignment and facilitate the reassignment of an application.<sup>258</sup> Although the details regarding the process of examiner-requested application reassignment and the associated occurrence rates are undisclosed, it is almost certainly an easier ask than an applicant-requested reassignment. In order for an applicant's request for reassignment to be approved, they must show improper conduct that amounts to "bias or the appearance of bias."<sup>259</sup>

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<sup>254</sup> 35 U.S.C. § 2(a)(2).

<sup>255</sup> 35 U.S.C. § 122(b)(1)(C).

<sup>256</sup> See *supra* Part III.B; see also Schwegman Lundberg & Woessner, P.A., *supra* note 80, at 58:24-58:34 (USPTO Director Hirshfeld stating it is challenging to change examiners, once an application gets to their docket they tend to keep that application and its continuations).

<sup>257</sup> Schwegman Lundberg & Woessner, P.A., *supra* note 80, at 33:00-33:19.

<sup>258</sup> *Id.* at 32:52-33:00.

<sup>259</sup> See *In re Ovshinsky*, 24 U.S.P.Q.2D 1241, 1251-52 (Comm'r Pats. 1992).

Given the current state of the law and the substantial weight an application’s assignment carries, reducing the evidentiary burden applicants must present, if any, would likely mitigate the need to target draft. An application’s assignment would no longer spell the death of its patentability.<sup>260</sup>

One solution is to change the burden needed for assignment and the evidence that an applicant can provide. For example, applicants should be able to cite specific areas of their application that they believe provide evidence to warrant reassignment. Applicants could also provide other evidence, such as how the publicly available classification tag definitions support or oppose terms defined in their application.<sup>261</sup> As a first step, the USPTO could determine whether the evidence provided by the applicant shows that the application could have been reasonably assigned elsewhere. If the USPTO determines that an application could have been reasonably assigned elsewhere, it could utilize the algorithm’s objective decision-making to create a rebuttable presumption of other locations to which an application should receive reassignment. For example, if the USPTO’s algorithm assigned an application to a business methods examiner but had a software examiner as a secondary choice, the USPTO could create a rebuttable presumption that the application should be reassigned to a software examiner unless the applicant can prove otherwise.

### **C. Bifurcate the Examination Process**

Another way the USPTO could resolve the need for target drafting is to separate examination between the scientific disclosure of applications and the process of applying patent law to applications.

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<sup>260</sup> Quinn, *supra* note 4 (stating that certain art units are “where patent applications go to die”).

<sup>261</sup> See, e.g., *Nautilus, Inc. v. Biosig Instruments, Inc.* 572 U.S. 898, 910 (2014) (citing that it is well established “that a patentee is free to be his or her own lexicographer.”).

One approach may involve implementing two different stages of examination. The initial stage would aim to ascertain what exactly the application discloses, i.e., the invention. This phase would encompass finding evidence of prior art, definiteness, enablement, and patentable subject matter. The USPTO employee responsible for this stage would make determinations as to the “finding of facts.” In the second stage, another USPTO employee could apply those findings of facts to determine the patentability of an application (“findings of law”). Specifically, the first-stage USPTO employee should be well-versed in the application’s scientific area, whereas the second-stage USPTO employee only needs to be well-versed in the patent law. Such a multi-step process would allow for better and faster decision-making, allowing applicants to appeal at an earlier stage and decide whether an application’s prosecution is worth continuing.

Alternatively, both the first-stage and second-stage employees could work in tandem in a single-stage examination process, as the USPTO already has, to prosecute a patent application. Currently, patent examiners are not required to have a legal background.<sup>262</sup> While a legal background would help determine the patentability of applications, it is not practical as the number of lawyers needed to fulfill every scientific area at the USPTO would be overwhelming. As such, the USPTO could hire lawyers who may not have a scientific expertise but a general understanding of the law to act in tandem with examiners who do have certain scientific expertise.

## **V. CONCLUSION**

The integration of AI within the USPTO has exacerbated an ongoing issue with patent applications, where applicants strategically draft their applications to circumvent specific art units and examiners, aiming for assignment to more favorable ones. This manipulability of AI,

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<sup>262</sup> See, e.g., *The Inside Scoop from a USPTO Patent Examiner*, LEXISNEXIS (Dec. 19, 2018), <https://www.lexisnexis.com/resources/the-inside-scoop-from-a-uspto-patent-examiner/>.



and consequently the USPTO, has adverse implications for public perceptions of the United States Government and its legal system. Furthermore, the USPTO is not ensuring that the public is receiving a fair deal from the Constitution's patent bargain.<sup>263</sup> The AI classification system empowers applicants to utilize patent drafting tools to modify or add specific keywords within an application that enhances the likelihood of a favorable assignment instead of the best assignment.

In order to mitigate the issues associated with targeted drafting and forum shopping, this Paper recommends implementing certain changes. These include (1) removing publicly available data that is necessary for the function of predictive assignment tools, (2) lowering the evidentiary burden needed for the approval of an applicant's request for reassignment, and (3) bifurcating the prosecution process to remedy allowance rate discrepancies.<sup>264</sup> The adoption of any of these measures would reduce the prevalence of targeted drafting and forum shopping at the USPTO, ultimately contributing to a fairer patent bargain.

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<sup>263</sup> See U.S. CONST. art. I, § 8, cl. 8.

<sup>264</sup> See *supra* Part IV.