No. _____

In the Supreme Court of the United States

ENCO SYSTEMS, INC., *Petitioner*,

DAVINCIA, LLC,

v.

Respondent.

On Petition for Writ of Certiorari to the United States Court of Appeals for the Federal Circuit

PETITION FOR WRIT OF CERTIORARI

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September 20, 2021

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QUESTION PRESENTED

ENCO owns and practices a patent for a system and method for automatically converting human speech carried in an audio-visual signal into the text captions that appear on one's TV screen. The Federal Circuit ruled that the invention was not eligible for patent protection under 35 U.S.C. § 101 because it was allegedly directed to an abstract idea. The single question presented is:

What is the appropriate standard for determining whether a patent claim is directed to a patent-ineligible concept when determining whether an invention is eligible for patenting under 35 U.S.C. § 101?

CORPORATE DISCLOSURE STATEMENT

Petitioner ENCO Systems, Inc. has no parent corporation. No publicly held company owns 10% or more of the corporation's stock.

RELATED PROCEEDINGS

The following proceedings are directly related to this case within the meaning of Rule 14.1(b)(iii):

- ENCO Systems, Inc. v. DaVincia, LLC, Case No. 1:19-cv-00039 (E.D. Mo.) judgment entered March 20, 2020, rehearing denied May 5, 2020.
- *ENCO Systems, Inc. v. DaVincia, LLC*, Case No. 20-1995 (Fed. Cir.), judgment entered March 8, 2021, rehearing denied April 23, 2021.

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OPINIONS BELOW

The Federal Circuit's opinion (App. 1-11) is reported at 845 F. App'x 953 (Fed. Cir. 2021). The Federal Circuit's order denying panel rehearing (App. 32-33) is unreported. The opinion of the District Court granting DaVincia's motion to dismiss (App. 12-23) is reported at 447 F. Supp. 3d 916 (E.D. Mo. 2020).

JURISDICTION

The Federal Circuit entered judgment on March 8, 2021 and denied panel rehearing on April 23, 2021. App. 1, 32. This Court has jurisdiction pursuant to 28 U.S.C. § 1254(1).

On March 19, 2020, the Court extended the time to file a petition for a writ of certiorari to 150 days from the date of the lower-court order denying a timely petition for rehearing. That order extended the deadline for filing this petition to September 20, 2021.

STATUTORY PROVISION

"Whoever 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 therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101.

INTRODUCTION

Since the *Alice/Mayo* cases, scores of patent litigants have petitioned the Court to clarify or reform the test for § 101 patent eligibility. Three former USPTO directors, the Solicitor General's office, and

every judge on the Federal Circuit have bemoaned the impractical application and seemingly arbitrary outcomes reached under the Alice/Mayo test. In a rare display of bipartisanship, lawmakers from both parties have warned that current eligibility jurisprudence does not promote the progress of science and the useful arts but instead discourages investment in critical emerging technologies. Formulating a clear eligibility rule is critical to the health of our patent system and, more broadly, to our innovation-based economy.

The Court's difficult task of devising a workable eligibility test is complicated by the technology involved in most of the section 101 petitions submitted. Eligibility cases frequently involve information data processing, computer networks and sophisticated biological processes. Complex technologies compound the conceptual challenges surrounding eligibility, and may be so encumbered by case-specific facts that the Court's analysis has limited applicability.

The Court has called for views of the Solicitor General regarding the petition for writ of certiorari filed in American Axle & Manufacturing, Inc. v. Neapco Holdings, LLC, et al., case no. 20-891 (filed December 28, 2020). In that case, a sharply divided Federal Circuit largely affirmed the district court's decision that claims directed to a process of reducing vibration in a vehicle drive shaft were not patent eligible because they were directed to a natural law. American Axle involves relatively straightforward mechanical technology and is a good vehicle for revisiting the Alice/Mayo test. This case, however, is a better candidate. The single patent at issue in this petition, US 7,047,191 ('191 Patent), claims a method and system for providing automated captioning for AV signals, such as those displayed at the bottom of one's television screen. It arose from the inventors' patent application filed over 20 years ago, in March 2001. The '191 Patent is ideal to serve as the subject patent for reassessing the *Alice/Mayo* eligibility test for at least four reasons.

First, the complexity level of the technology and the nature of that technology are especially well-suited for reviewing section 101 eligibility. The system and process claims involve electronic audio-visual signals, some AV processing equipment and a computer, but the technology does not require a technology tutorial nor any outside study to comprehend it. Everyone is familiar with the captions that are viewable at the bottom of a television screen. At the same time, any opinion issued by the Court will have broad applicability. Because the patent involves automation, computers, communications devices and processing of electronic signals, it will be easier for lower court judges, the USPTO, and the patent bar to apply the Court's analysis and reasoning to many important and more esoteric inventions, particularly patents involving computers, communications, data processing, and automation of human tasks by a computer.

<u>Second</u>, the abstract-idea exception implicated in this case is more commonly encountered by judges and patent examiners than the other two judicial exceptions. The sheer volume of affected inventions makes review of the abstract idea exception more urgent compared to, for example, the law-of-nature exception.

<u>Third</u>, this case is superior because eligibility is squarely presented without collateral issues that might impact the analysis. While the parties were litigating this case, the USPTO denied DaVincia's petition for *inter partes review* challenging the validity of the patent as obvious under 35 U.S.C § 103. Unlike patents considered in earlier eligibility cases such as *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012), the Court can confidently assume that the patent is not anticipated (§ 102) is not obvious (§ 103) and is sufficiently described and enabled in the specification (§ 112). The Court may focus on eligibility with confidence that the claims meet all the other statutory criteria for patentability.

<u>Fourth</u>, the Federal Circuit reached the wrong result. The '191 Patent claims a system and method of solving a technological problem using physical components executing defined steps to produce a tangible result. Characterizing the claims as directed to "an abstract idea" robs that phrase of all meaning. If that court's flawed reasoning is not addressed here, it will persist in its misguided approach and propagate further mischief. Indeed, despite being designated nonprecedential, district courts have begun citing the Federal Circuit's opinion to support ineligibility decisions.

If the Court grants ENCO's petition for certiorari, ENCO will echo arguments made by the United States in petition-stage briefing in other eligibility cases that the Court should follow a more textual and contextualized approach, similar to that advocated by the four-justice concurrence in *Bilski v. Kappos*, 561 U.S. 593 (2010), or a test that heavily factors whether the invention is directed to solving a technological problem, such as the machine-or-transformation test prescribed by Judge Michel in his opinion for the Federal Circuit sitting *en banc* in that same case.

The *Bilski* majority expressed concern that an inflexible machine-or-transformation test could foreclose eligibility for some process inventions that could take many forms as technology rapidly advanced. Ironically, the *Alice/Mayo* eligibility test has resulted in the rejection or invalidation of many hundreds more patents than if those inventions had been evaluated under the machine-or-transformation test. If the only problem were overly restrictive eligibility standards, the patent community could adjust and tolerate it. Much more damaging – and discouraging to inventors. the patent bar, patent examiners, and judges who must adjudicate eligibility - is the unpredictable and irreconcilable case law that the Alice/Mayo test has spawned at the Federal Circuit.

This case would be an ideal companion to American Axle & Manufacturing, Inc. v. Neapco Holdings, LLC, et al., case no. 20-891 (petition filed December 28, 2020), which concerns eligibility of a patent claiming a method of reducing vibration in an automotive drive shaft, purportedly because it is directed to a natural law. If the Court grants the petition for writ of certiorari in American Axle but does not grant ENCO's petition, then this petition should be held pending the Court's decision in *American Axle* then disposed of as appropriate.

STATEMENT OF THE CASE

I. A Brief History of the Court's Recent Eligibility Tests for Process Claims.

A. Pre-Bilski Legal Background.

"Whoever 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 therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101. Congress purposefully cast the provision "in broad terms to fulfill the constitutional and statutory goal of promoting 'the Progress of Science and the useful Arts." Diamond v. Chakrabarty, 447 U.S. 303, 315 (1980), *citing* U.S. Const. Art. 1, § 8. This Court has recognized "three specific exceptions to § 101's broad patent-eligibility principles: 'laws of nature, physical phenomena, and abstract ideas."" Bilski v. Kappos, 561 U.S. 593, 601 (2010) (quoting Chakrabarty, 447 U.S. at 309). These are the "basic tools of scientific and technological work," Gottschalk v. Benson, 409 U.S. 63, 67-68 (1972), "free to all men and reserved exclusively to none," Funk Bros. Seed Co. v. Kalo Inoculant Co., 333 U.S. 127, 130 (1948). The three exceptions denied eligibility to two different but related types of inventions.

First, a patent that expressly claimed a law of nature, physical phenomenon, or abstract idea was ineligible, no matter how important the discovery. That conclusion followed directly from the text of Section 101, since neither $E=mc^2$ nor the law of gravity is a "process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. Second, a patent that ostensibly claimed patent-eligible subject matter, such as a machine or process, was nonetheless invalid if, in "practical effect," the patent would "wholly pre-empt" the public's access to unpatentable subject matter and operate as "a patent on the [idea or phenomenon] itself." Benson, 409 U.S. at 71-72. The pre-emption concern was not implicated, however, if an inventor claimed a "process which, when considered as a whole, is performing a function which the patent laws were designed to protect (e.g., transforming or reducing an article to a different state or thing)." Diamond v. Diehr, 450 U.S. 175, 192 (1981). In other words, the mere fact that the invention exploited a law of nature, an abstract idea, or physical phenomenon, as all human endeavors must at some level, did not disgualify it under Section 101.

B. *Bilski* and the Machine-or-Transformation Test.

Around 20 years ago the USPTO began receiving many more patent applications for business methods and other "non-technical" inventions, many exploiting the capabilities of the internet and faster computers. Bernard Bilski was unhappy that the USPTO had denied him a patent for a method of hedging risk in commodities trading, rejecting his claims as ineligible under section 101. In 2008, the Federal Circuit announced a clear eligibility rule: "A claimed process is surely patent-eligible under § 101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing." In re Bilski, 545 F.3d 943, 954 (Fed. Cir. 2008) (en banc). The case produced five opinions. One dissent argued that the majority's eligibility test was too liberal and forcefully urged that a proper reading of § 101 confined process claims only to claims directed to advances in science or technology. 545 F.3d at 1009 (Mayer, J. dissenting). Two other dissents argued that the machine-or-transformation test was too limiting. 545 F.3d at 976, 1011 (Newman & Rader, JJ, dissenting). The Federal Circuit's majority opinion adopted a middle position.

On appeal, this Court commended the exceptional scholarship reflected in the five opinions and recommended them for close study. Bilski, 561 U.S. at 600. All nine Justices agreed that the machine or transformation test was a "useful and important" or even "critical" clue for eligibility, Bilski, 561 U.S. at 604 ("useful or important clue" (majority opinion)); id. at 614 ("critical clue," Stevens, J., concurring); id. at 658 ("the clue," Brever, J. concurring, emphasis in original). However, a five-justice majority rejected the Federal Circuit's reliance on the machine-or-transformation question as the exclusive test of eligibility. See id. at 593 (delivering opinion of the Court except as to sections II-B-2 and II-C-2). The Court held that the machine-or-transformation test was not the sole test of eligibility and rejected the Federal Circuit's implicit reliance on traditional patent-law understandings of the term "process" (or the Framers' conception of the "useful Arts") as requiring а machine or transformation. Rather, the Court stated that "process" and section 101's other terms should bear

their general-purpose "dictionary definitions." *Id.* at 601-03. The Court concluded that Mr. Bilski's method claims were "attempts to patent abstract ideas," *id.* at 609, but expressly declined to prescribe any other eligibility standard. "The patent application here can be rejected under our precedents on the unpatentability of abstract ideas. The Court, therefore, need not define further what constitutes a patentable 'process,' beyond pointing to the definition of that term provided in § 100(b) and looking to the guideposts in *Benson, Flook*, and *Diehr.*" *Id.* at 612.

C. The Alice/Mayo Test.

In a separate eligibility case that this Court had remanded for review in light of *Bilski*, the Federal Circuit applied the machine-or-transformation test to a method of treating a patient with a man-made drug. The Court of Appeals confirmed its earlier ruling that the method of treatment was eligible, notwithstanding the fact that the critical process step for determining optimal drug dosage and efficacy involved measuring "natural" metabolite levels in the patient. *Prometheus* Laboratories v. Mavo Collaborative Services, 628 F.3d 1347, 1355 (Fed. Cir. 2010) (remarking that the "useful and important clue, an investigative tool," leads to "a clear and compelling conclusion" of patent eligibility). This Court unanimously reversed and held the patent claims ineligible. Mayo Collaborative Services, v. Prometheus Laboratories, Inc., 566 U.S. 66 (2012). It reviewed the technology involved in the patent and cited its earlier opinions to find that a critical step in the claimed process – measuring the metabolite levels in the blood to determine appropriate dosage levels of the therapeutic drug – was directed to application of a natural law. The Court barely discussed the machineor-transformation test that it had endorsed in *Bilski* only two years prior. "[I]n stating that the 'machine-ortransformation' test is an 'important and useful clue' to patentability, we have neither said nor implied that the test trumps the 'law of nature." *Mayo*, 566 U.S. at 88.

Two years later, the Court attempted to resolve the confusion arising from its inconsistent analytical approaches in Bilski and Mayo. In Alice Corp. Pty. Ltd. v. CLS Bank Intern., 134 S. Ct. 2347 (2014), the Court again confronted multiple opinions from the Federal Circuit which, sitting *en banc*, had ruled that a method and system of mitigating settlement risk in financial transactions using a computer was not eligible for This Court affirmed, distilling Mayo's patent. eligibility analysis to a two-step test. At Step 1, the court must "determine whether the claims at issue are directed to a patent-ineligible concept." Alice, 134 S. Ct. at 2355. If a claim is not "directed to" any of the three ineligible concepts, it is eligible. Claims that are directed to an ineligible concept may nevertheless be eligible after a second step analysis. At Step 2, the court must "consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent eligible application." Alice, 134 S. Ct. at 2355 (quoting Mayo, 132 S. Ct. 1289). To constitute an "inventive concept," the claim limitations must involve more than performance of "well-understood, routine, [and] conventional activities previously known to the industry." Alice, 134 S. Ct. at 2359.

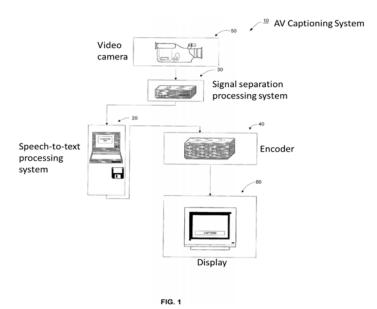
In the seven years since Alice, USPTO examiners and Article III judges have all struggled to apply the Court's two-step test. Courts and patent examiners rarely employ the machine-or-transformation test except occasionally to confirm an eligibility determination reached via the *Alice/Mavo* test. No one is happy, excepting large high-tech enterprises which have exploited the confusion and tightening eligibility restrictions as a means of invalidating or substantially devaluing competing patents. Few have failed to note that the Court has ruled against eligibility in all its recent cases, unanimously in Mayo. Today the Federal Circuit issues arbitrary rulings seemingly more dependent on the composition of the panel assigned than the facts of the case. Lawmakers, scholars, inventors, the patent bar, and former directors of the Patent Office uniformly decry the current state of eligibility law.

II. The Facts in This Case.

A. Background of the '191 Patent

ENCO manufactures and sells automated audiovisual ("AV)" captioning equipment for television broadcasters and other forms of transmitted AV signals. (District Ct. Opinion, App. 12-13). ENCO owns and utilizes in its products the '191 Patent "Method and System for Providing Automated Captioning for AV Signals." *Id.* In March 2019, ENCO filed suit against its direct competitor, DaVincia, LLC, alleging patent infringement. *Id.*

The '191 Patent describes an AV captioning system 10 which includes a speech-to-text processing system 20, a signal separation processing system 30, an encoder 40, a video camera 50, and a display device 60, as shown at App. 13 and in the figure below. All of these components, as well as the overall AV Captioning System, are "machines" in terms of section 101.



The patent has three independent claims covering a method (claim 1), system (claim 8) and a data medium (claim 15) for automatically inserting captions into AV signals and 18 dependent claims. Dist. Ct. Op., App. 13. Claim 1 articulates eight steps, each step containing limiting elements to accomplish improved automated captioning. App. 3. The independent claims recite or imply several physical components including (1) a speech-to-text processing system that converts spoken words into text and processes the text into caption data; (2) an encoder that associates the caption data with the AV signal; and (3) a device to display the AV signal with the associated caption data. *Id*.

More succinctly, the patent claims a new system and method of automatically producing the captions that optionally appear on one's television screen -avaluable service used and appreciated by tens of millions of people daily.

B. Summary of Proceedings Below.

1. The District Court's Dismissal for Ineligibility.

The district court dismissed ENCO's complaint with prejudice, holding that the patent was directed to an abstract idea under *Alice* Step 1 because it merely assembled a collection of conventional computer components to replace humans with the coupledtogether result. App. 19. The district court held that the claims were not saved at *Alice* Step 2 seemingly based on the same reason as Step 1 - that that the claim was based on "interchangeable components and interchangeable composition of those components." App. 21. The district court denied ENCO's motion for reconsideration. App. 26.

2. The PTAB Denies DaVincia's Petition for *Inter Partes Review*

While the case was pending at the district court, DaVincia petitioned the Patent Trial and Appeal Board for administrative *inter partes review* of all 21 claims in the '191 Patent, asserting the patent was invalid on grounds of obviousness under 35 U.S.C. § 103. DaVincia, LLC v. ENCO Systems, Inc., case no. IPR2020-00690 (PTAB).¹ DaVincia supported its 69page IPR petition with dozens of prior art references and a 229-page declaration by its expert. In mid-September 2020, the Board released a detailed 68-page decision addressing each of DaVincia's grounds for invalidation. The three Administrative Patent Judges unanimously ruled that DaVincia had shown no reasonable likelihood of prevailing on its arguments that any of the 21 challenged claims were obvious under § 103 and denied DaVincia's petition. *Cf.* Appeal Op., App. 10 (acknowledging PTAB's denial of IPR).

3. The Federal Circuit Affirms.

The Federal Circuit affirmed the district court's ruling that the '191 Patent claimed an ineligible abstract idea but used a different rationale, stating that it was the <u>automation</u> of a task previously performed by humans that was the ineligible abstract idea:

In this case, claim 1, together with the specification, makes clear that the focus of the claimed advance is simply the abstract idea of automating the AV-captioning process. That process, consisting of converting audio to text and associating the text with corresponding video, is not itself asserted to be an advance over the prior art. The focus is not any specific

¹ See generally 35 U.S.C. §§ 311-319 (authorizing post-issue reexamination of patents). The Federal Circuit took judicial notice of the IPR proceedings. App. 10. The opinion denying the petition and other docket entries are accessible at https://ptab.uspto.gov/#/login.

improved computer techniques for performing those functions—functions intrinsic to the concept of AV captioning — but simply the use of computers to "conserve human resources" by automating work otherwise performed through human labor.

Federal Cir. Op., App. p. 7. The Federal Circuit further held that the claims in the '191 Patent failed *Alice* at Step 2, *i.e.*, the claims did not include additional features to ensure that they were "more than a drafting effort designed to monopolize the abstract idea." *Alice*, 134 S.Ct. at 2357 (internal edits omitted):

The claims also fail under the second step of the *Alice* framework because they do not set forth an inventive concept that would transform their subject matter into something more than the abstract idea. The claims do not incorporate anything more beyond conventional computing hardware and software, which do not transform the subject matter into an eligible application of the abstract idea. The specification, with respect to each part of the system, including the audio-to-text conversion, explains that "conventional" components and techniques can be used.

Federal Cir. Op., App. pp. 9-10. ENCO petitioned for panel rehearing, arguing that the court's opinion misapplied its precedent concerning the eligibility of claims that automate a task, and that in any event the '191 Patent used new and nonobvious techniques to accomplish the claimed automation. The Federal Circuit denied rehearing. App. 32.

REASONS FOR GRANTING THE PETITION

I. Current Conditions are Causing Great Harm to the Patent System.

The Court is acutely aware of the loud and insistent calls from every quarter for a clear and workable eligibility test. The absence of any coherent standards under the Alice/Mayo test has become intolerable. American Axle's petition well describes the chaotic state of the law. See American Axle petition, case no. 20-891, pp. 27-33 (Dec. 28, 2020) ("The entire patent system is calling for guidance from the Court"). In addition to pleas from every current and many former judges on the Federal Circuit, especially compelling are the two most recent responses to CVSG invitations, in which the government urges resolution of the confusion and uncertainty. "The confusion created by this Court's recent Section 101 precedents warrants review in an appropriate case," Hikma Pharmaceuticals USA Inc. v. Vanda Pharmaceuticals Inc., Case No. 18-817, Brief for the United States at 8. "[T]his Court's recent decisions have fostered uncertainty concerning those substantive Section 101 standards. . . . The Court should grant review in an appropriate case to clarify the substantive Section 101 standards." HP Inc. v. Berkheimer, Case no. 18-415, Brief for the United States at 10.

The question is not whether the Court will review its eligibility test, but which case it will choose as its vehicle.

II. The '191 Patent is the right case to revisit eligibility for four reasons.

A. The level and nature of technology in this patent is superior for reviewing section 101 eligibility.

Both the level and type of technology involved are ideal. On the one hand, the technology underlying the patent claims is relatively straightforward and not difficult to comprehend. Indeed, the invention produces a result – captioning – that is familiar to everyone. Thus the Court can devote its energy and analysis to the daunting conceptual challenges of patent eligibility without laboring to understand and describe the invention to its audience. Likewise, the simpler technology will facilitate application of the Court's analysis to other diverse and more complicated fields, *e.g.* by judges and patent examiners. Common law is better when made from simple facts.

On the other hand, the '191 Patent involves computers, software, electronic signal processing, communications devices, and automation of a task previously performed by humans. Inventions with these features comprise a large percentage of section 101 cases currently challenging the USPTO and the courts. To the extent the Court's analysis addresses these aspects of ENCO's patent, its opinion may swiftly resolve eligibility of thousands of information technology inventions, ranging from autonomous vehicles to facial detection devices. The level and nature of the technology in the '191 Patent hits the sweet spot.

B. Resolving the abstract idea exception is more urgent.

This case centers on the eligibility exception that almost certainly is the most frequently contested. The other two judicial exceptions, Laws of Nature and Natural Phenomena, are extremely important and deserve the Court's explication. But defining the contours of these will not have the reach or import of a case resolving the test for an abstract idea. For the same amount of intellectual work, clarifying or reformulating the eligibility test for claims supposedly directed to an abstract-idea will resolve more cases than grappling with the other two exceptions.

C. Eligibility is squarely presented.

The '191 Patent has no other validity issues to distract from or interfere with the section 101 analysis. It recently survived a rigorous post-issue challenge that its claims were obvious and therefore invalid. The Patent Trial and Appeal Board rejected DaVincia's petition for *inter partes review*, issuing a very thorough 68-page decision finding no reasonable likelihood that DaVincia could show that any of the patent's 21 claims were invalid as obvious (35 U.S.C. § 103). *DaVincia*, *LLC v. ENCO Systems, Inc.*, case no. IPR2020-00690 (PTAB Sept 16, 2020).

This aspect is significant because the Court has approved consideration of section 103 obviousness as part of its eligibility analyses. "Purely conventional or obvious" steps are "normally not sufficient to transform an unpatentable law of nature into a patent-eligible application of such a law." *Mayo*, 566 U.S. at 79 (some internal edits omitted). Nor is adequacy of the specification (enablement) an issue in this case (35 U.S.C. § 112). Because there is no genuine issue that the '191 Patent claims meet all other statutory criteria (*i.e.* useful, new, not conventional/obvious, and enabled), the Court can focus exclusively on answering whether the law allows an inventor to patent an invention for automatically providing captions to AV signals. *Cf. Berkheimer*, Brief for the United States, *supra*, at 14 (remarking on parties' dispute concerning scope of invention and § 112 enablement issues, "the Court should await an appropriate case that properly presents those broader [eligibility] questions without similar obstacles.").

D. The Court of Appeals reached the wrong result.

Many petitioners, including American Axle, have called the Court's attention to the clear and troubling trend at the Federal Circuit of tightening patent eligibility. The case law builds upon itself like a ratchet, with the three eligibility exceptions becoming ever more expansive as the "logic" from previous cases is extended. This case is at least as troubling as any recent eligibility petition. For the first time, claims that expressly recite several components of physical machinery, utilized to transform a physical thing, including steps detailing new and nonobvious ways to automate a tedious task previously performed by humans, has been ruled an abstract idea.

If the claims are assessed under the machine-ortransformation test, which the Court endorsed in 2010 as a useful and important clue for eligibility, the claims are clearly eligible. They recite physical components of machinery and apparatus, transformation of electronic signals (by adding caption data to the AV signal) and transformation the television display itself (by adding captions to the visible display).

If assessed under a "technological arts" test, which was vague but in practice widely acknowledged prior to Bilski, the claims are certainly eligible because they are indisputably addressed to the technology of processing AV signal data. In that same vein. Professor Chisum has suggested a safe harbor rule if a claim "is directed to a solution of a technological problem." Donald S. Chisum, "The Supreme Court's Alice Decision on Patent Eligibility of Computer-Implemented Inventions: Finding an Oasis In the Desert," available at https://patentlyo.com/patent/2014/ 06/eligibility-implemented-inventions.html (accessed September 16, 2021). The European Patent Convention similarly requires that an invention be "susceptible of industrial application" for eligibility. European Patent Convention, Part II, Ch. 2, Article 52 (Patentable Inventions). Perhaps most significant, the United States advocates for "interpreting Section 101's terms in light of statutory context, history, and constitutional purpose." Hikma, Case No. 18-817, Brief for the United States, supra, at 21. "That context includes the fact that Section 101 implements the Intellectual Property Clause, the main object of which is to promote the progress of science and useful arts." Id. at 20, citing Pennock v. Dialogue, 27 U.S. (2 Pet.) 1, 19 (1829) (Story, J.) (some citations and internal edits omitted).

Patents in fields such as information technology, computer software, and business methods are hard cases because they lie at the periphery of patentable subject matter. This is not such a case. The '191 Patent claims a physical system comprising physical components that transforms spoken words from the audio signal into caption text data inserted into the visual signal. The transformed AV signal is received by a television that displays a transformed picture including captions. Under any test conceived before 2012, the claimed systems and processes are patent eligible.

III. This case would be an excellent companion case to American Axle.

The Federal Circuit here held that a system directed to automating a human task is an unpatentable abstract idea. "[T]he focus of the claimed advance is simply the abstract idea of automating the AV-captioning process." Fed. Cir. Opinion, App. p.7. But thousands of patents have been issued for inventions that automate tiresome and repetitive human tasks, from Eli Whitney's cotton gin, to programmable home thermostats, to self-driving cars. The same court in *American Axle* applied the "law of nature" exception and held that a manufacturing process that reduced vibration in a motor vehicle drive shaft was ineligible. By considering the '191 Patent and the patent at issue in American Axle at the same time, the Court can fashion a coherent test that produces the desired result in both cases, despite the disparate technologies and eligibility exceptions involved. Applying the new/reformed test to two

patents would produce broadly applicable guidance to resolve many more eligibility questions than reviewing either case alone.

CONCLUSION

The Court should grant certiorari in this case irrespective of whether it grants the petition in *American Axle*. If the Court grants only American Axle's petition, it should hold this petition pending the Court's decision in that case then dispose of it as appropriate.

Respectfully submitted,

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