## In the Supreme Court of the United States

INVESTPIC, LLC,

Petitioner,

v.

SAP AMERICA, INC.,

Respondent.

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

# BRIEF OF AMPLIFY EXCHANGE, LLC AND MIGHTY BUILDINGS, INC. AS AMICUS CURIAE IN SUPPORT OF PETITIONER

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APRIL 15, 2019

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#### INTERESTS OF AMICI CURIAE1

Amicus curiae Amplify Exchange, ("Amplify Exchange") and Mighty Buildings, Inc. ("Mighty Buildings") are promising venture-backed technology startup companies. Amplify Exchange is a cryptocurrency marketplace that offers token holders portfolio management tools, as well as the ability to pay for goods and services with cryptocurrency. Mighty Buildings is a graduate of the esteemed Silicon Valley seed accelerator, Y-Combinator, and it provides automated construction services using advanced 3D printing technology. Amplify Exchange's business consists of developing and marketing cryptocurrency software, and Mighty Buildings develops automated robotics technologies to deliver their products. In creating and selling their products, Amplify Exchange and Mighty Buildings innovative invent technology and processes.

Inventors rarely develop technology that is immediately ready for delivery to the market and thus, even after a patent is granted, companies spend millions of dollars and countless hours making the product a reality. A lot of hard work, time, and resources are required to invent and commercialize an invention. Taking into account the burden and costs associated with creating an invention, if there

<sup>&</sup>lt;sup>1</sup> No party's counsel authored this brief in whole or part; no party or party's counsel contributed money intended to fund preparing or submitting the brief. No person other than the *amici curiae* or their counsel made a monetary contribution to its preparation or submission. Petitioner and Respondent have both granted blanket permission to file *amicus* briefs.

aren't adequate protections put in place to protect their intellectual property and recoup costs, startups and creators will be less likely to be motivated to innovate. Furthermore, the inability to secure patents on innovations may hinder the ability of startups to attract investors, which will harm these companies' chances of growth and survival. Cash flow is the lifeline of a startup, so the ability to license patents will generate an additional revenue stream. Small factors can affect the existence or demolition of small startup companies, which are in very vulnerable positions in terms of resources and capabilities. Allowing non-tangible patents will also give startups more protection by preventing larger companies with greater resources misappropriating a startup company's invention and bringing the product to the market first.

Amplify Exchange and Mighty Buildings' interests represent the interests of many startup technology companies whose products and services are built upon software and computer-implemented inventions. It is Amplify Exchange and Mighty Buildings' belief that in SAP America, Inc., v. Investpic, LLC, the Federal Circuit's "physical realm" rule is contrary to congressional intent and is a danger to patent law and technology startups in the United States. Amplify Exchange and Mighty Buildings submit this brief in support of the clarification of § 101 and the denial of the Federal Circuit's "physical realm" rule that broadly prohibits the patentability of non-physical objects.

#### SUMMARY OF ARGUMENT

The United States Constitution and the Patent Act incite innovation by ensuring inventors the exclusive rights to their inventions. U.S. CONST. art. I, § 8, cl. 8; 35 U.S.C. § 100, et seq. The standard for the patentability of an invention is that the invention must be a process, machine, article of manufacture, or composition of matter, and the invention must be new, useful, and non-obvious. 35 U.S.C. §§ 101-103. Though the patent system's greatest challenge has been to balance encouraging innovation and avoiding preemption of entire fields of discovery, Congress has not limited the patentability of non-physical inventions in the statute. Because the patent system's purpose is to promote innovation, this Court has long recognized the need to prohibit the patenting of discoveries that are "building blocks of human ingenuity," namely, "laws of nature, natural phenomena, and abstract ideas." Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 573 U.S. 208, 216 (2014) (citing Mayo Collaborative Servs. v. Prometheus Labs., Inc., 566 U.S. 66, 71, 85 (2012)). However, this Court has not barred the eligibility of intangible patents, as long as the invention was not merely a building block that would be monopolized and stifle innovation. Thus the Federal Circuit's application of the "physical realm" rule to determine Section 101 patent

eligibility is not in adherence to precedent set by this Court or current statutes.

The denial of patent eligibility for computer implemented innovations will negatively impact the technology world. startups, and innovators. Although copyright protection is always afforded to software and abstract ideas, copyright merely protects the expression of a creation, rather than the functionality of the work like a patent does. For high-level technology that takes years and millions of dollars to create and implement, the level of protection provided by copyright law is not nearly enough. The United States has historically granted numerous digital patents over the past fifty years for innovations that improved the function of hardware through the creation of new processes in the software. These innovations have allowed this country to develop economically and technologically.

The current era relies heavily on technology in virtually every field. Thus if the purpose of patents is to facilitate innovation and competition, an exclusionary provision on patenting "non-physical" inventions would be a great burden on smaller companies and startups with great minds and the potential for great innovations. The development of startups and competition between companies fuel the economy and foster growth. Inadequate intellectual property protection for innovations will cripple startups against larger corporations by diminishing their ability to compete, and it will ultimately lead to their failure. To uphold the patent system's purpose of enabling innovation and competition, inventors should be rewarded for their efforts and be protected from others attempting to take their work without permission.

#### **ARGUMENT**

I. The Denial of the Patentability of Computer-Implemented Inventions Will Hinder Innovation, Especially in Startup Companies.

The patent system's purpose is to promote innovation and historically, neither Congress, nor this Court have established that only inventions in the "physical realm" may be eligible for a patent. The Federal Circuit's "physical realm" test poses a significant threat to technology innovators in the United States whose products are based upon computer-implementation.

Patents are crucial to the protection of computer-implemented/software inventions because copyrights do not afford the same degree of protection that patents do. Copyrights protect the expression of a creation. 17 U.S.C. § 101. Under copyright, if a competing company develops a competing invention without directly copying the inventor's work, there would be no protection or remedy even if the competitor had developed the product through reverse engineering or if the modified work performs the same function. 17 U.S.C. § 501.

Patents, on the other hand, protect the functionality of an invention, which excludes competing products that perform the same algorithm

or computation. 35 U.S.C. §§ 101, 271. Ownership of a patent will impose too much of a burden on competitors to risk infringing the patent; thus it will afford smaller companies more market protection by preventing larger companies with greater resources from misappropriating the work done by the smaller company and bringing the product to the market first.

The "physical realm" test imposed by the Federal Circuit is currently a major threat to patent eligibility in computer-intensive fields like artificial intelligence, machine learning, and data science. In this technological era, an increasing number of industries and services heavily rely on software and are automated. The Internet of Things (IOT) industries such as autonomous vehicles, peer-to-peer ride share applications, various Software as a Service (Saas) applications, smart home systems, and other smart technologies the American people use on a daily basis are a result of improvements and innovations in the non-physical computer-implemented field.

To continue to foster these innovations and efficient processes, the law should not be overly restrictive on the patentability of non-physical subject matter that otherwise would fall under the patent eligibility standard. Without patent laws in place to protect truly novel and nonobvious innovations that individuals have worked so hard to develop, the United States will be set back due to the decline of research and progress. Many inventors will be discouraged from pursuing their ideas if they are not provided with protection for their inventions,

and as a consequence, it becomes unlikely for them to recoup the costs associated with developing them.

#### II. The Decline of High Potential Technology Startups Will Reduce Competition and Stifle American Economic Growth

Technology has been driving entrepreneurial growth for a number of decades now since the dot com bubble in the 1990s. A vast number of highgrowth startups in the United States today are based upon computer-implemented inventions and the rise of these startup companies create economic growth and a greater number of jobs for people.

The lack of patent protection or invalidation of patents, however, will make it incredibly difficult for startups to attract venture capital investment and capital to begin and sustain their companies. Startups create unique solutions and technologies that benefit the public and is essential  $\operatorname{for}$ societal advancement. However. startups go through a very difficult and turbulent journey to get to commercial success. Thus, not affording these smaller companies with adequate intellectual property protection will essentially cause fewer innovators to pursue their unique ideas that could benefit the public.

Research has shown that since the 1980s, the number of startup companies that have entered the market has declined, and the overall productivity growth has also declined around 3.1 percent. Eduardo Porter, Where Are the Start-Ups? Loss of

Dynamism is Impeding Growth (last updated Feb. 6, 2018),

https://www.nytimes.com/2018/02/06/business/econo my/start-ups-growth.html. The decline of the number of startups entering the market will inhibit economic development by preventing disruptive change and allowing large corporations to monopolize markets.

The United States is synonymous to liberty and equality. The patent laws of the United States should not prove otherwise by being skewed in favor of larger companies. The "physical realm" test of the Federal Circuit will drastically reduce the chance of survival for software based startups, and it will allow the continuous unchallenged dominance of large corporations. Growth is dependent upon competition, thus there must be strong patent laws to protect inventions so that creative, infant companies could have a chance to compete with companies with richer capital.

#### CONCLUSION

For the foregoing reasons, and those submitted by petitioner and other *amici* in favor of the patentability of otherwise patent-eligible inventions outside of the physical realm, Amplify Exchange and Mighty Buildings respectfully request that the Court strike down the Federal Circuit's

"physical realm" rule and establish the standard for the patentability of abstract innovations.

Respectfully submitted,

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